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SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

Thirteenth session

Lyon, 11-15 September 2000

Agenda item 9 (a)

## **METHODOLOGICAL ISSUES**

### **LAND-USE, LAND-USE CHANGE AND FORESTRY**

#### **Note by the secretariat**

1. At its thirteenth session, the Subsidiary Body for Scientific and Technological Advice invited Parties to submit, by 13 September 2000, comments on the annex to document FCCC/SBSTA/2000/L.6/Add.1. It requested the secretariat to compile these views into a miscellaneous document.
2. The secretariat has received 14 such submissions.\* In accordance with the procedures for miscellaneous documents, these submissions are attached and reproduced in the language in which they were received and without formal editing. An unofficial translation of the submission by Paraguay was received and is attached.

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\* In order to make these submissions available on electronic systems, including the World Wide Web, they have been electronically scanned and/or retyped. The secretariat has made every effort to ensure their correct reproduction.

**FCCC/SBSTA/2000/MISC.8**

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PAPER NO. 1: AUSTRALIA

**AUSTRALIAN SUBMISSION – COMMENTS AND SUGGESTED AMENDMENTS  
TO THE CO-CHAIRMEN’S TEXT - THE ELEMENTS RELATED TO  
ARTICLES 3.3 AND 3.4 - 08/09/00**

**SECTION A – DEFINITIONS**

**Forest**

**[The proposed definition of a forest given below will replace paras 1 – 4 of the Co-Chairmen’s text.]**

*1 (a) Forest is land with tree crown cover (or equivalent stocking level) of a minimum level of between 10% and 30% and minimum area of between 0.3 and 1.0 ha. The trees should be able to reach a minimum height of between 2m and 5m at maturity in situ. Forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground; or of open forest formations with a continuous vegetation cover. Young natural stands and all plantations established for forestry purposes which have yet to reach the minimum tree crown cover or the minimum tree height are included under forest, as are areas which are temporarily unstocked as a result of human intervention or natural causes.*

*1 (b) To reflect its national circumstances, each Party in Annex I shall, for purposes of applying the definition of “forest” (as provided in para 1(a) above) to its own lands, elect a single minimum tree crown cover, a single minimum land area and a single minimum tree height and shall specify this election in its pre-commitment period report submitted under Article 7.4. Upon election, each Annex I Party’s forest definition will be fixed for that commitment period.*

Australia supports the above approach to defining and reporting on forests for the purposes of Article 3.3 as:

- The definition above will allow for the differences in the national circumstances of Annex I Parties forests to be reflected through the flexibility given in the ranges for canopy cover, tree height and land area.
- It will allow for certainty in the application of the forest definition for reporting and accounting because of the requirement that Annex I Parties elect a definition of a forest before the beginning of the commitment period which will remain fixed for the duration of that commitment period.
- It will allow Parties to use their existing forestry data as it is based on elements of the FAO definition for a forest.

**[Australia notes that under Article 3.3, afforestation, reforestation and deforestation must be directly human induced. This issue is addressed in para 17.**

**Australia’s suggestions for afforestation, reforestation and deforestation would replace paras 5 –8 of the Co-Chair’s text]**

### **Afforestation**

5. *“Afforestation” is the conversion of non-forest to forest on land that has not historically<sup>4</sup> supported a forest for a period of at least 50 years. .*

Australia supports the definition of afforestation given in para 5 with the exception of the the link with para 7 which defines “historic”. We consider that this is not in line with the text of Article 3.3 which ties the reference to “since 1990” to the activity of afforestation rather than to the state of the land in 1990. In our view, in line with the definition contained in the IPCC 1996 Revised Inventory Guidelines, “historically” should be defined as a longer time period than since 1990. Australia suggests that the period of 50 years should be used to define “historically”.

### **Reforestation**

6. *“Reforestation” is the conversion of non-forest to forest on land that historically<sup>1</sup> was forested, but that has been converted to non-forest for a period of at least 5 years. Re-establishment of the forest through planting, seeding and natural regeneration following harvesting will [not] be considered reforestation. Reforestation does not include regeneration that occurs as part of the commercial forest management cycle.*

Australia considers there is a similar difficulty with the link between paras 6& 7 of the co-chair’s text in relation to the definition of ‘historically’. We suggest that the policy intent of the reforestation definition can be better expressed with the inclusion of a time period and an explicit reference to exclude regeneration following harvesting under the reforestation definition.

### **Meaning of “historic” – Distinction between afforestation and reforestation**

7—*For purposes of defining afforestation and reforestation for the first commitment period, “historic” is considered to mean since 1 January 1990 [the last ... years].*

See above explanation for proposed deletion of para 7

### **Deforestation**

Para 8 *“Deforestation” is the conversion of forest to non-forest, which is not immediately followed by the establishment of the same forest type on the same site. Deforestation does not include harvesting or other practices that occur as part of the commercial forest management cycle.*

Australia has some difficulty with the terms “immediately” and “establishment of the same forest type on the same site” in the current co-chairs text as we consider there is ambiguity and potential for perverse incentives with this formulation (eg if a Party replanted with different vegetation – perhaps to restore indigenous species – the Party could be debited for deforestation). We suggest that the policy intent can be more readily captured by the above formulation.

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<sup>4</sup>—For the definition of “historic”, see paragraph 7.

Para 9

Australia has no difficulty with the policy intent of this para but considers that there needs to be symmetry in relation to the treatment of reforestation in relation to regeneration. The intent is captured in relation to Australia's proposals for paras 6 & 8. Hence para 9 could be deleted.

Para 10, 12& 13

Australia supports the retention of these paras as drafted.

**Forest management**

*14. Forest management ~~is considered to~~ includes a combination of individual management activities related to multiple uses and services **of forests**. Managed forests do not include parks, wilderness areas, wildlife preserves or other forests that are inaccessible. Carbon sequestration ~~is one~~ **can be one** of the multiple functions of sustainable managed forests. ~~Forest management activities are defined with the objectives to meet goals set by the forest owner.~~*

Australia considers that as currently drafted, the second and third sentences are more in the line of descriptors than definitional text. We suggest the above amendment to sentence 3 as more accurate. We do not support the final sentence as this degree of flexibility in the definition of managed forest as an activity could lead to inconsistencies in the implementation of and accounting for Article 3.4 forest management activities.

**Cropland management**

*15. Cropland management includes practices on land on which agricultural field crops are grown and on land ~~that is considered cropland but is~~ **temporarily** not being used for crop production.*

Australia suggests the above drafting changes to provide greater clarity.

**Grazing land management**

*16. Grazing land management ~~comprises-forage practices , such as forage species selection, fertilization, irrigation and drainage, and livestock production practices aimed at~~ **comprises-forage practices , such as forage species selection, fertilization, irrigation and drainage, and livestock production practices** ~~aimed at~~ manipulating the amount and type of forage and livestock produced. Grazing land includes lands on which the primary productive use is for livestock or other herbivore grazing. It can include lands such as natural pastures (native pastures), native hay, rangelands and drained peatlands. ~~Grazing land management includes activities related to manipulating the amount and type of forage and livestock produced, such as forage species selection, fertilization, irrigation and drainage~~*

Australia suggests the above amendments to provide clarity and shortening of the text.

## **B Eligibility**

### **Eligibility**

17. For Article 3.3, eligible activities are those that are **directly human induced** ~~and meet the requirements set forth in this decision~~ and that have taken place on or since 1 January 1990 or in a year subsequent to 1990, but before the end of December of the last year of the commitment period **and that meet other requirements set forth in this decision.**

Australia considers that the Article 3.3 requirement for direct human induced is a key eligibility requirement that should be referenced in para 17.

18. ~~Implementation of land-use, land-use change and forestry activities included under the provisions of Articles 3.3 and 3.4 of the Kyoto Protocol shall be consistent with the~~ **guided by the objectives and principles of the FCCC and the Kyoto Protocol, the Convention on Biological Diversity, the Convention to Combat Desertification, the Ramsar Convention, the Rio Forest Principles, and Agenda 21.**

Australia considers that the above formulation is more in line with the link between Article 3 of the UNFCCC and the provisions of the Kyoto Protocol and the inter-linkages between the Kyoto Protocol and other multilateral environment agreements.

## **POSSIBLE CONSOLIDATED TEXT FOR ARTICLE 3.4 ACTIVITIES**

[This approach could replace paras 19 – 25, paras 34 –38 and 42 –46 of the Co-Chairmen’s text - *Elements related to Articles 3.3 and 3.4 – 08/09/00 20:10: 38*. Australia suggests that these elements should be drawn together as a single, continuous section of text which would be followed by sections on Accounting and Measuring and Reporting (Sections C and D of the Co-Chairmen’s text except for the paras indicated above). Some elements of the text below are ordered so as to draw in the scope of options contained in the Co-Chairmen’s text. Australia is still considering its approach to some of these options. New or re-ordered paras as per the Australian suggestion are indicated with “X-n”].

X 1. To reflect its national circumstances, each Party in Annex I shall elect how and which additional activities it will account for the first and subsequent commitment periods in accordance with the approach contained in either Section I or Section II. **A Party shall not apply Sections I and II during a single commitment period.**

X 2. The Party shall specify the additional activities it elects to apply in its pre-commitment period report submitted under Article 7.4. Upon election in its pre-commitment period report, each Annex I Party’s approach to accounting for additional activities, in accordance with the approach provided in **either Section I or Section II**, will remain fixed for that commitment period.

X 3. For the second commitment period, how and which additional activities will be eligible for accounting towards Annex I Parties' assigned amounts may need to take into account ongoing methodological work and other work of the Intergovernmental panel on Climate Change and continuing consideration by the Subsidiary Body for Scientific and Technological Advice.

### **Section I**

X.4 (a) Under Article 3.4, Parties may elect to account for one or more of the following human-induced activities and their associated changes in greenhouse gas emissions by sources and removals for the first and subsequent commitment periods. :

(b)

- (i) Revegetation
- (ii) Forest aggradation and degradation
- (iii) Agroforestry
- (iv) Establishment of urban greening
- (v) Control of forest fires and pest outbreaks

(c) For the first commitment period, such activities must have taken place since 1990

### **Section II**

X.5 Annex I Parties may elect to count one or more of the activities, listed (i) to (iii) below, and their associated changes in greenhouse gas emissions by sources and removals under Article 3.4 in the first and subsequent commitment periods as provided in para X.6 below.

- i. forest management,
- ii. cropland management,
- iii. grazing land management

X.6 For the first commitment period, where an Annex I Party elects to account for one or more of the activities listed in para X.5 above, an [discount approach] [threshold approach] as provided in paras X.7 – X.9 below shall be applied to the accounting for changes in greenhouse gas emissions from additional activities to be added to or subtracted from that Party's assigned amount.

### **Possible discount/threshold options**

**[Options for thresholds/discounting – the COP could decide that one or more of these approaches could be applied for the first commitment period].**

### **APPROACH A:**

X.7 [(a) Only additional agreed activities which can be shown to have a detectable intentional human-induced effect on carbon stocks shall be accounted for under the provisions of Article 3.4. This requirement shall be tested using verifiable statistical data to show that the



hypothesis,<sup>2</sup> that the activity has no detectable intentional human-induced effect, can be rejected with 10 per cent significance;

(i) Accepted statistical tests and deterministic modelling techniques shall be used singly or in combination to test the statistical hypothesis referred to in the previous paragraph and to separate the intentional human-induced effects from other effects. Such tests and techniques shall be based on data and information from:

(ii) Control plots used for comparison between land subject to the activity and those not subject to it;

(iii) Data from research plots;

(iv) Existing forest survey and planting data;

(b) Deterministic model projections shall be used to factor out the dynamic effects of age structure in forest ecosystems, **pasture land and croplands**, and data from control and research plots shall be used to exclude carbon stock changes in all ecosystems caused by climate change, elevated carbon dioxide concentration, the effects of fertilization due to nitrogen fallout, **and natural variability**.

(c) Where such models, tests and techniques are not used, changes in carbon stocks associated with agreed activities shall only be counted in excess of a threshold level of x tC/ha-yr;

**OR**

#### APPROACH B

X.8 [Discount option: A Party electing to apply [one or more additional activities under paragraph 5 for its first commitment period may add to its assigned amount for that commitment period only [X] percent of any positive net removals related to [those activities] .

**OR**

#### APPROACH C

X.9 [Threshold option: A Party electing to apply [one or more additional activities] under paragraph X.5 for its first commitment period may add to its assigned amount for that commitment period only the positive net removals in excess of the threshold [specified for that Party in Annex Z][formula based on country-specific data and information].]

### **C. Accounting**

#### **Accounting**

*26. Subject to paragraphs \_\_\_\_ (insert those paragraph numbers determining the eligibility of activities), for the first commitment period, the adjustment to a Party's assigned amount shall be equal to the ~~net~~ changes in CO<sub>2</sub> greenhouse gas emissions, measured as verifiable changes in carbon stocks, and ~~net~~ changes in non-CO<sub>2</sub> emissions during the period 1 January 2008 to*

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<sup>2</sup> This would be referred to as the *null hypothesis* in statistical usage

*31 December 2012 resulting from land-use, land-use change and forestry activities under Article 3 since 1 January 1990. Where the result of this calculation is a net sink, this value shall be added to the Party's assigned amount. Where the result of this calculation is a net emission, this value shall be subtracted from the Party's assigned amount.*

Australia does not understand how net changes in greenhouse gas emissions can be operationalised for carbon accounting under Articles 3.3 and 3.4 and supports the deletion of the references to "net" in para 26.

*27. If an area of land is subject to Article 3.3 activities as well as Article 3.4 activities, it shall be accounted for under ~~Article 3.4.~~ **Article 3.3***

While we support the intent of para 26 to avoid double counting, Australia does not agree that Article 3.4 activities should take precedence over Article 3.3 given that the afforestation, reforestation and deforestation activities are already established for accounting under Article 3.3..

#### **Initiation of accounting during the commitment period**

*28 Accounting of net changes in carbon stocks and non-CO<sub>2</sub> greenhouse gas emissions resulting from land-use, land-use change and forestry activities under **Articles 3.3 and 3.4** ~~Article 3~~ shall begin with [the onset of the activity or] the beginning of the commitment period [, whichever comes later].*

#### **Duration of accounting**

*29 Once land is accounted for under **Articles 3.3 and 3.4** ~~3~~, all changes in GHG emissions and removals occurring from this land must be accounted for over subsequent and contiguous commitment periods.*

Australia suggests that the above paras would be more accurate if they refer only to Articles 3.3 and 3.4.

#### **Carbon pools**

*30 Parties shall account for changes in carbon pools associated with land-use, land-use change and forestry activities under **Articles 3.3 and 3.4** ~~Article 3~~, which shall include: above-ground biomass, below-ground biomass, litter, dead wood, soil organic carbon, and harvested wood products from ~~deforestation~~ **Article 3.3 and 3.4** activities, in accordance with the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories as required by Article 5.2, any future updates of (parts of) these Guidelines and, possible future good practice guidance to be developed by the IPCC on land-use, land-use change and forestry.*

*31 Parties shall account for all carbon pools that are a source of GHG emissions as a result of land-use, land-use change and forestry activities under Article 3, but 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 in question is not a source.*

Australia considers that harvested wood from forest type activities under Articles 3.3 and 3.4 should be included as a relevant carbon pool for accounting purposes.

### Non-CO<sub>2</sub> gases

*32. Non-CO<sub>2</sub> emissions and/or removals, and verifiable changes in carbon stocks resulting from land-use, land-use change and forestry activities under Article 3 shall be estimated, reported, and accounted for in accordance with methodologies agreed to by the COP, and any additional methodologies that may be agreed to by the COP and the COP/MOP at future sessions as a result of methodological work on inventory guidelines and good practice guidance and uncertainty management.*

Australia considers that the reference to uncertainty management in the above para is redundant as good practice guidance encompasses uncertainty management.

**NB. Paras 34 – 38 and 42 - 46 are addressed in the Australian approach to Article 3.4 activities given above.**

*39 ~~For the first commitment period,~~ **For the purposes of accounting for Article 3.3 activities, credits resulting from reforestation activities will only be given to reforestation occurring on those lands that did not contain forest in 1990. to the extent that carbon stocks have increased above levels present before the deforestation event took place on that unit of land.**<sup>3</sup>*

*40 **For the purposes of accounting for Article 3.3 activities, debits resulting from harvesting in the first commitment period and other natural and human-induced effects following afforestation and reforestation since 1990, shall not be greater than credits earned from sequestration on that unit of land.***

Australia considers that amendments suggested for the above paras provide greater clarity as to the policy intent which is to avoid perverse incentives as a result of Article 3.3 activities in terms of encouraging action by Parties to enhance sinks while maintaining sustainability objectives including in relation to biodiversity and native forests.

**NB. Paras 42 – 46 are addressed in the Australian approach to Article 3.4 activities given above.**

### Article 3.7

*47 [A single pre-commitment period review process should apply to all elements of a Party's inventory, including all emissions and removals associated with land-use change and forestry. The eligibility of a Party to apply the final sentence of Article 3.7 shall be based on a complete, reviewed inventory. For calculating the initial assigned amount, all greenhouse gas emissions associated with land-use, land-use change and forestry, in CO<sub>2</sub> equivalents, shall be taken into account].*

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<sup>3</sup> The meaning of reforestation and deforestation are as defined for the purposes of implementing Article 3.3

Australia considers that the intent of this text can be more appropriately addressed as part of the treatment of LULUCF issues related to the streams of work being dealt with under Articles 5,7 and 8.

~~48 The meaning of the final sentence of Article 3.7 of the Kyoto Protocol is that Parties for whom land use change and forestry constituted a net source of greenhouse gas emissions in 1990 shall include their aggregate anthropogenic emissions minus removals from land use change in their greenhouse gas inventory for the base year and subsequent years.~~

This para constitutes a significant amendment to the provisions of Article 3.7 which was intended to address the inequity to countries with a net source of emissions from the land use change and forestry sectors as a result of the gross/net construction of the Kyoto Protocol in relation to the conjunction of Article 3.1 and 3.3. Australia does not support this text.

~~49 Emissions from land-use change, for the purpose of the implementation of Article 3.7 of the Kyoto Protocol, are those net emissions reported under the forest and grassland conversion and abandonment of managed lands subcategories of the Revised 1996 IPCC Guidelines.~~

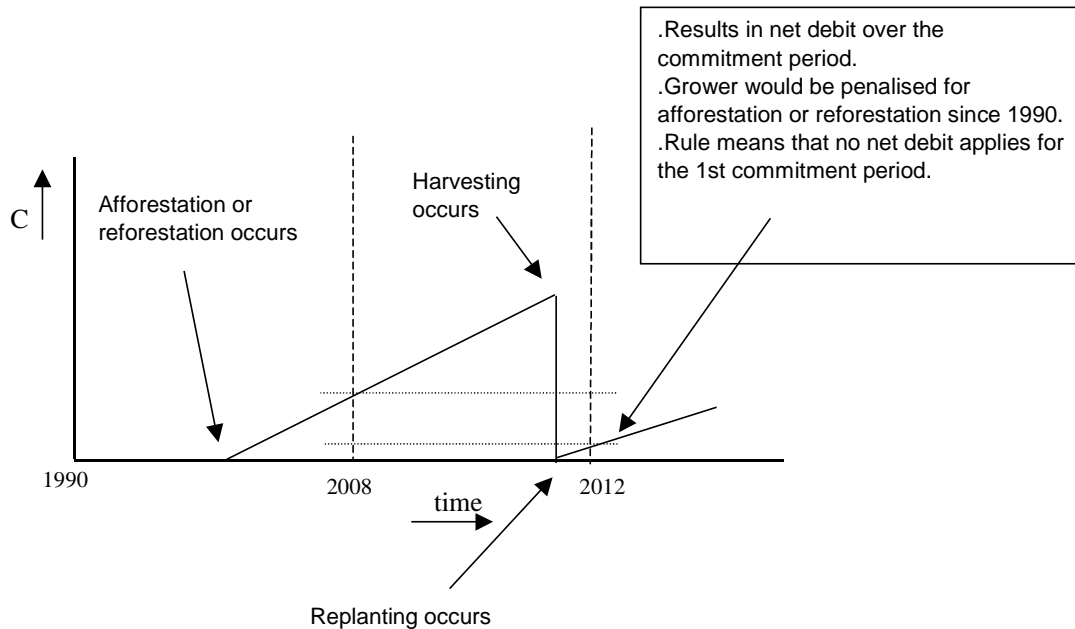
Australia supports the retention of para 49 as currently drafted.

~~50 Since Parties to which the final sentence of Article 3.7 applies will already have counted the effects of activities related to land use change agreed under the provisions of Article 3.3 and Article 3.4 as part of their base year and subsequent inventories, further accounting of these activities under the provisions of Article 3.3 and 3.4 would not apply to these Parties.~~

Australia does not understand the policy intent of this proposal. As drafted it is not consistent with the provisions of Article 3.3 and 3.4 and also amounts to a significant amendment to those Articles.

## Australia Explanatory Material

### Proposed Sub- Rule (Para 40) to address possible perverse incentives for afforestation and reforestation activities under Article 3.3



#### Notes:

- Debits could be assigned during the commitment period and provide a disincentive to carry out afforestation or reforestation activities, even though the afforestation or reforestation activity reduces atmospheric CO<sub>2</sub> in the long run and carbon stocks increase overall.
- This rule overcomes this perverse outcome by limiting carbon debits for afforestation and reforestation to the amount of net credits (credits minus debits) received from carbon accumulating at the stand level.

PAPER NO. 2: BOLIVIA (ON BEHALF OF CHILE, COLOMBIA, COSTA RICA,  
ECUADOR, GUATEMALA, HONDURAS, NICARAGUA, PANAMA,  
PARAGUAY AND URUGUAY)

**PROPOSED ADDITIONS AND ADJUSTMENTS TO THE CO-CHAIR'S TEXT ON  
LULUCF FCCC/INFORMAL/74**

To apply as a chapeau to every definition of a forest in Paras 3, 4 and 5: **A forest is a dynamic complex of plant and animal communities, composed of trees and its associated vegetation and biophysical fluxes, interacting as a functional unit, with diverse characteristics, depending on the biophysical attributes or features of every ecosystem and biome. A forest also has socioeconomic and cultural values for the people who live in it, and/or make a sustainable use of it.**

Para 5: « Afforestation » is the conversion of non-forest to forest on land that has not ~~historically been forested for at least X years, whenever this conversion happened since 1<sup>st</sup> January 1990, or since 1<sup>st</sup> January 2000, in the case of CDM projects.~~

Para 6: « Reforestation is the conversion of non-forest to forest on land that was ~~historically~~ forested, but that has been converted to non-forest **by deforestation, according to the definition given in Paragraph 8 below, since the 1<sup>st</sup> January 1990. For the purpose of the implementation of CDM projects, the reforestation activities must have taken place since the 1<sup>st</sup> January 2000.**

Para 8: « Deforestation » is the **direct human-induced process which leads to the conversion of forest to non-forest, which is not immediately followed by the establishment of the same forest type on the same site or by the loss of 20% [x%] or more of the average carbon stock, according to the characteristics of each biome.**

{Add a Para 8bis :} **Prevention of deforestation is a comprehensive group of direct human-induced activities which starts a process contrary to deforestation, and directed to its deterrence. For accounting purposes, it reduces emissions by sources. This definition should only apply for project activities undertaken in Parties not included in Annex I.**

Para 14: Forest management is considered to include a combination of individual management activities related to multiple uses and services. ~~Managed forests do not include parks, wilderness areas, wildlife preserves or other forests that are inaccessible. Carbon sequestration~~ **Increase of carbon stocks** is one of the multiple functions of sustainable managed forests, etc.

Para 17: {At the end of the paragraph, add the following text :} **For the purpose of the implementation of CDM projects, eligible activities are those that meet the requirements set forth in the appropriate decision on Mechanism pursuant to Article 12 and in this document, and that have taken place after the 1<sup>st</sup> January 2000.**

{Add a Para 17bis :} **LULUCF project activities under Article 12 should also meet the specific needs and concerns of the least developed countries, in regard to assist those countries in addressing climate change impacts on arid and semi – arid areas, forested areas, areas prone to forest decay natural disasters, drought and desertification, as well as areas with fragile ecosystems, including mountainous ecosystems, and coastal wetlands.**

Para 19 : All [**direct** human-induced] activities, etc.

Para 20 : The following **direct** human-induced activities, etc.

{Add at the end of Para 23 :} **However, Annex I Parties shall account for all emissions and removals of all activities within its national boundaries.**

{Add at the end of Para 24 :} **In the case of Art. 3.4 activities implemented in the CDM, the host country determines which activities are eligible, once the CDM starts its operation.**

{Add a Para 25bis :} **In the case of Art. 3.4 activities implemented in the CDM, the host country determines which activities are eligible, once the CDM starts its operation.**

Para 31 : {Add at the end of the sentence :} ...provided that demonstrates that the pool in question is not a source **anymore**.

{Add a Para 54bis :} [**The SBSTA will develop**] [**The IPCC is invited to develop**] [**The CDM Reference Manual, attached to Decision X/CP.6 will contain**] **guidance on methodologies for the inclusion of environmentally-safe, climate-effective activities in the LULUCF sector for the Clean Development Mechanism,**

PAPER NO. 3: BRAZIL (ON BEHALF OF THE GROUP OF 77 AND CHINA)

**POSITION PAPER ON ARTICLES 3.3 AND 3.4 – LULUCF**

The Group of 77 and China attaches great importance to the clear establishment of principles in the consideration of the methodologies for inclusion of LULUCF activities in the implementation of the Kyoto Protocol. Such principles must appear in a “chapeau”, as follows.

The Conference of the Parties .....

1. Any LULUCF activity, in addition to the commitments under article 4.1(d) of the UNFCCC, incurred for the purposes of determining compliance of Annex I Parties with their quantitative emission limitation and reduction objectives under the Kyoto Protocol, must not change the global effect of the Kyoto Protocol, which is to mitigate climate change in the first commitment period by reducing Annex I anthropogenic emissions by sources minus removals by sinks by an aggregate amount of at least 5% with reference to their 1990 levels, as per Article 3.1 of the Kyoto Protocol, including the use of project-based mechanisms.
2. Any LULUCF activity, for the purposes of determining compliance of Annex I Parties with their quantitative emission limitation and reduction objectives, must not result in an increase of anthropogenic emissions by sources minus removals by sinks deriving from application of removals by sinks from carbon dioxide and nitrogen fertilization effects.
3. In view of the impact of climate change upon forests and desertification, forest conservation and rehabilitation of degraded vegetation cover are important climate change adaptation activities, and as such must be included among those activities to benefit from the share of proceeds of the mechanisms of the Protocol intended to meet the cost of adaptation. This is without prejudice to decisions on the inclusion of LULUCF activities in the mechanisms of the Kyoto Protocol.
4. The rules for the inclusion of LULUCF activities in the accounting of Annex I countries, for purposes of compliance with their commitments under the Kyoto Protocol, must not imply a transfer of such commitments to a future commitment period.
5. Carbon removed by LULUCF activities shall be considered as a temporary removal. The Annex 1 Party that makes use of such removal to achieve compliance with its Kyoto Protocol commitment shall continue to be responsible for the equivalent emission reduction at the appropriate point in time.
6. In the methodologies to account for emissions by sources and removals by sinks in the LULUCF sector, no consideration shall be given to the simple presence of stocks of carbon in national reservoirs, in line with the provisions of article 5.2 of the Kyoto Protocol.



PAPER NO. 4 : CANADA

**LAND-USE, LAND-USE CHANGE AND FORESTRY**

**CO-CHAIR'S TEXT ELEMENTS RELATED TO ARTICLES 3.3 AND 3.4**

Following are Canadian preliminary comments on the Co-Chair's text, as well as thoughts on a preamble, based on our initial review. Our comments our subject to change. We will make other more detailed comments and suggestions during the informal consultations and negotiations, as appropriate. Our proposed textual changes, building on the Co-Chair's text, are in *italics*. Explanations and other suggestions are shown in plain text.

**PREAMBLE**

Our preference is that any preamble should be very short. We do not believe reference to the nature or scope of LULUCF activities is needed. We also do not believe principles relating to implementation of LULUCF activities are needed as such principles are already elaborated in Article 3 of the Framework Convention. The decision on LULUCF will serve to operationalize these principles vis-à-vis Article 3.3 and 3.4. If principles are to be included, principles that we identified in our submission of 1 August 2000 (see pages 48-50 of FCCC/SBSTA/2000/Misc.6) must be considered for inclusion.

**A. DEFINITIONS (paragraphs 1-16)**

**1. Forest (paragraphs 1-4)**

Option 1c (**para. 3**), with some modifications, best provides an overall structure to a definition while allowing for some degree of country-specificity to allow Parties to reflect their own forest characteristics and make the most use of existing data and measurement systems. The definition of forest is integral to definitions of ARD.

*Forest is land with tree crown cover or equivalent stocking level of a minimum level of between 10% and 30% and minimum area of between 0.3 and 1.0 ha. The trees should be able to reach a minimum height of between 2m and 5m at maturity in situ. [Forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground; or of open forest formations with a continuous vegetation cover]. Young natural stands and all plantations established for forestry purposes which have yet to reach the minimum tree cover or the minimum tree height are included as forest, as are areas which are temporarily unstocked as a result of human intervention or natural causes.*

*To reflect its national circumstances, each Party in Annex B shall, for the purposes of applying the definition of 'forest' to its own lands, elect a single minimum tree crown cover, a single minimum land area and a single minimum tree height and shall specify this election in its [pre-commitment] report submitted under Article 7.4. Upon election, each Annex B Party's forest definition will be fixed through the first commitment period.*

Some portion of the second paragraph dealing with reporting, should be included Section D on Measuring and Reporting.

## **2. Afforestation, Reforestation and Deforestation (paragraphs 5-11)**

Definitions of these terms need to be considered carefully in relation to the definition of forest above. The term 'direct human-induced' should be used in keeping with Article 3.3.

### **Reforestation (paragraph 6)**

The two different views on the definition (IPCC, FAO) can be best expressed by having two options rather than trying to merge the options with bracketed text as in **para. 6**, which creates inconsistencies with the definition of forest above.

Option 1: *Reforestation is the direct human-induced conversion of non-forest to forest land that historically was forested, but that has been converted to non-forest.*

Option 2: *Reforestation is the direct human-induced re-establishment of a stand of trees on land that carried forest before.*

The term 'historic' (**para. 7**) does not need to be defined given the definition of forest above.

### **Deforestation (paragraphs 8-11)**

A simple definition in conjunction with the definition of forest is sufficient. Based on **para 8** this would be:

*Deforestation is the direct human-induced conversion of forest to non-forest.*

**Para. 9** is not needed as degradation is best covered under forest management and the definition of a forest means that temporary removal of forest cover due to human intervention is not deforestation. We support the idea of Parties providing information on how they would distinguish deforestation and harvesting but this should not be a requirement for each act of harvesting, as implied by **para. 10**. **Para. 11** is not needed as the definition of forest means that the size of the unit of assessment must be the same as the minimum area chosen in the forest definition.

## **2. Article 3.4 Definitions (paragraphs 12-16)**

Definitions should be balanced, symmetrical and broadly inclusive of managed land, rather than exclusive. The use of lists in definitions should be avoided where possible.

### **Re-vegetation (paragraph 12-13)**

We support the inclusion of re-vegetation in the text, including the establishment of shelterbelts and windbelts, provided that the balancing activity of de-vegetation is included.

### **Forest Management paragraph 14)**

We support the Co-Chair's proposed text with wording changes for clarity.

*Forest management includes a combination of individual management practices related to multiple uses and services of forests, and reflecting the goals set by the forest owner. Managed forests do not include parks, wilderness areas, wildlife preserves, or other forests that are inaccessible. Carbon sequestration can be one of the multiple functions of sustainable managed forests.*

### **Cropland Management (paragraph 15)**

We support the Co-Chair's proposed text with wording changes for clarity. The word 'field' should not be used as it could exclude horticultural orchards and agro-forestry.

*Cropland management includes [all] practices on land on which agricultural crops are grown, and on land that is considered cropland but is not currently being used for crop production.*

### **Grazing Land Management (paragraph 16)**

We support the Co-Chair's proposed text with wording changes for clarity.

*Grazing land management includes [all] practices aimed at manipulating [affecting] the amount and type of vegetation for livestock and other herbivores.*

## **B. ELIGIBILITY (paragraphs 17-25)**

### **1. Eligibility**

**Para. 17** should be simplified.

*For Article 3.3, eligible activities are those that have take place after 1 January 1990 and conform to the definitions for afforestation, reforestation and deforestation.*

We agree with the idea expressed in **para. 18** but believe the idea might be part of a short chapeau rather than an eligibility criterion. Rather than listing Conventions, the paragraph should make it clear that implementation of LULUCF activities should be consistent with principles relating to sustainable management, using language already found in the Protocol and Convention. The idea is captured in Convention Article 3.4.

### **2. Inclusion of Eligible Activities Under 3.4 in the 2<sup>nd</sup> and Subsequent Periods (paragraphs 19-21)**

We believe that one of the proposed options, **para. 19** (option 1), has not actually been proposed by any Party. If this is the case this paragraph could be deleted. **Para. 21** (option 3) is emphatically not acceptable as it creates continuing uncertainty about the application of Article 3.4. **Para. 20** (option 2) is the clearest approach and it should include re-vegetation (and de-vegetation), forest management, cropland management and grazing land management. The other listed activities would generally be included under these categories.

### 3. Inclusion of Eligible Activities Under 3.4 in the 1<sup>st</sup> Period (paragraphs 22-25)

We believe that one of the proposed options, **para. 24** (option 2b), has not actually been proposed by any Party. If this is the case this paragraph could be deleted. **Para. 25** should be clarified to read:

*Parties shall report in accordance with Article 7 of the Kyoto Protocol, before the start of the first commitment period, which activities under Article 3.4 it elects to include in its accounting for the first commitment period. Such activities shall be limited to those, or a subset of those, listed in paragraphs xx. Such a decision is irrevocable.*

## C. ACCOUNTING (paragraphs 26-50)

### 1. Accounting (paragraphs 26-29)

As written the **para. 26** is confusing. The wording here should follow the wording of 9/CP.4 for carbon stock changes. The issue of inclusion of non-CO<sub>2</sub> gases in Articles 3.3 and in 3.4 accounting is an issue to be decided and text in this regard could be included, following a parallel formulation as that in 9/CP.4, but bracketed.

The intent of **para. 27** is to address the situation in which land is subject to ARD and also to an activity under 3.4. Under a land-based accounting approach the issue of double accounting would not arise. Parties need to think about the potential accounting rules that might be needed in the event that some sort of limiting adjustment is agreed to for Article 3.4.

In the first line of **para. 28** the word 'net' should be removed and the phrase 'and removals' should be added after the word emissions. Similar phrasing to the suggestions for para 26 (ie use of wording of 9/CP.4) should be used. There is a question of whether a difference needs to be drawn between accounting for Article 3.3 and 3.4, when the activity occurs in a commitment period. For Article 3.3 we suggest accounting which starts when the activity starts is most reasonable, as the ARD activities are narrowly defined discrete activities.

For Article 3.4, a broad based approach to specifying activities, and a land based accounting system, means that on-going management is included. We think there are two issues here - when does the accounting start for additions or subtractions from the land subject to the activity, and what land area is the accounting done on. The best approach may be to have accounting start with the beginning of the period. This accounting would be done on the land at the end of the commitment period subject to the broad-based activity. Under the proposed definition of forest management above, one issue is what accounting approach would avoid disincentives to establishment of new parks and wilderness areas in the managed forest. We welcome views of other Parties on the best approach for accounting for Article 3.4.

We strongly agree with the idea of **para. 29** as it addresses concerns about permanence in relation to Articles 3.3 and 3.4. Parties must still decide whether non-CO<sub>2</sub> emissions and removals are to be included so that some brackets are needed. Clearly all carbon stock changes must be included in all subsequent commitment periods.

### **3. Carbon Pools and Non-CO2 Gases (paragraphs 30-32)**

We support the idea of inclusion of all carbon pools, as expressed in **para. 30** with wording changes.

*Parties shall account for changes in all carbon pools associated with land-use, land-use change and forestry activities under Article 3 in accordance with Article 5.2 and possible future good practice guidance to be developed by the IPCC on land-use, land-use change and forestry.*

With respect to **para 32**, the phrase ‘and verifiable changes in carbon stocks’ should be deleted.

### **4. Separating Out Natural Uptake for 3.4 Activities (paragraphs 33-38)**

Accounting for both the potential negative and positive impacts of indirect human-induced and natural effects involves some level of risk for Canada. Our proposal is to comprehensively account for all such impact. We therefore support **para 33** (option 1). We note that, if an approach such as outlined in **para 37** is to be discussed, it must include recognition that applying any universal adjustment will not account for country-specific characteristics of ecosystems and their response to climate change.

### **5. Limiting Credits and Debits from Article 3.3 (paragraphs 39-41)**

We require study of **paragraphs 39-41** and will have comments later.

### **6. Limiting Credits from Article 3.4 for the First Commitment Period (paragraphs 42-46)**

The option of having no limitation should be shown. With a view to not expanding the text, this could be accomplished by bracketing all the paragraphs. Keeping this in mind, we would like to note some of the implications of the proposed options. Any limitations must clearly relate to the purpose of the limitation and reflect country-specific circumstances and the circumstances of different proposed activities. Options should also be evaluated in terms of their ability to maximize incentives to remove greenhouse gases from the atmosphere through LULUCF activities. Consideration of options should keep these points in mind.

**Para 42** would mean that no such incentives would exist once the ceiling is reached. No notion of country-specificity has been included in relation to the concept of a discount expressed in **para 43**.

### **7. Article 3.7 (paragraphs 47-50)**

The last sentence in **para. 47** should reference the language of Article 3.7 and should read as follows:

*..... For calculating the inclusion of emissions by sources minus removals by sinks in 1990 for the purposes of the final sentence of Article 3.7, all greenhouse gas emissions*

*and removals associated with land-use change, in CO2 equivalents, shall be taken into account.*

We require further study of **paragraphs 48-50**.

#### **D. MEASURING AND REPORTING (paragraphs 51-53)**

**Para. 52** can be clarified, keeping in mind that decisions have yet to be made on Articles 5, 7 and 8.

*Changes in carbon stocks and greenhouse gas emission and removals resulting from Articles 3.3 and 3.4 shall be measured, reported and accounted for in accordance with the requirements of Articles 5, 7 and 8*

**Para 53** should be replaced by some portion of the second paragraph of the forest definition we propose above.

#### **E. FUTURE WORK (paragraphs 54-55)**

Item (d) of **para. 54** can be deleted as forest degradation and aggradation would be included in the activity of forest management under Article 3.4. We support the other suggestions, keeping in mind that Parties may want to elaborate and refine the list in light of other decisions on LULUCF.

PAPER NO. 5: COLOMBIA

**LAND-USE, LAND-USE CHANGE AND FORESTRY (LUCF) PROJECTS  
IN THE CDM**

Expiring CERs

A proposal to addressing the permanence issue

**INTRODUCTION**

The potential benefits from using resource flows from the clean development mechanism to finance the reforestation of major watersheds and restore strategic ecosystems such as mangrove forests offers many benefits to developing nations. Employment, incomes, fresh water supply conservation, and biodiversity protection are among the most important benefits to developing nations from LUCF projects in the CDM. The fact that LUCF projects and their benefits are included in the JI and IET frameworks for industrialized nations and economies in transition make the exclusion of sinks seem highly unequitable to developing nations that need these environmental services and social benefits.

However, The inclusion of sink projects, specifically, forestry projects in the CDM, has been widely debated for many reasons including leakage, difficulty of measurement of carbon flows and permanence. Of these the issue of permanence is of the greatest concern, as the others may be controlled through effective monitoring and management. Although there are no questions with respect to the role of trees and forests as carbon sinks and as CO<sub>2</sub> capturing systems, the risk of future release of the CO<sub>2</sub> captured and financed through CDM places the environmental integrity of the mechanism at risk.

When an energy project reduces a ton of CO<sub>2</sub> emissions below a validated baseline, that ton of CO<sub>2</sub> is permanently prevented from ever being emitted into the atmosphere. In contrast, a ton of carbon stored in biomass might be released in the future, for example through forest fires or eventual harvesting, reversing to some extent the environmental benefits.

Some solutions have been proposed to address this concern. Approaches include: permanent enforcing, credit discounting, liabilities rules, minimum period for project lifetime, CERs buffers for risk management and others. Moreover, Some of these approaches may be used in combination if they are compatible, as long as the project complies with financial additionality.

The solution of permanently enforcing a carbon capture project has been severely criticized because it could threaten the sovereignty of the host country, or even its food security. CDM project lands would be prevented from changing its use (i.e. for agriculture) and would be also in continuous monitoring.

On the other hand, solutions like a minimum project lifetime still do not resolve completely the fact that the stored carbon may eventually be emitted in the future.

In this paper we propose a simple liability scheme that could resolve the permanence concern and at the same time offer an alternative to countries preoccupied about the sovereignty issue.

## **PROPOSED SCHEME**

First let us state that a temporary capture from a forestry project has important environmental and economics benefits.

On the environmental side there is no doubt that the carbon sequestered by a forestry project reduces the atmospheric CO<sub>2</sub> concentration which is equivalent to a negative emission. Therefore a temporary storage of carbon will delay the radiative forcing effects of climate change. That delay is permanent.

On the economic side the benefits derived from the forestry projects can be summarized in:

- Internalizing the service of carbon sequestration and its climate change benefits will add value to forests.
- Forests provide a cost-effective option for reducing emissions.
- In an economically efficient regulatory scheme, as is the Kyoto Protocol, the benefit of equalizing the marginal costs of abatements depends on the variability of available alternatives for compliance among sources. Forest projects will increase the available options for emissions reductions.

The alternative proposed by this paper aims to solve the permanence issue by treating all LUCF projects as potentially non permanent, and placing an expiration date on the associated CERS. In other words, issuing a temporary CER that will be valid for a period of time equivalent to the difference between the finishing date of the project according to its useful life and the date when it was certified. The expired CERs will have to be replaced at the end of the project lifetime either by permanent CERs or new expiring ones. Consequently, the potential release of carbon will be secured in the future when the expiring CERs are replaced. This strategy ensures a permanent reduction in the long run.

On the other hand, lands, which were committed by a forestry project, could be released from any future commitment, if the expired CERS are replaced with permanent CERS or CERS from other projects.

This approach allows developing nations to use the CDM for critical projects such as watershed and strategic ecosystem restoration, which are essential for sustainable development.

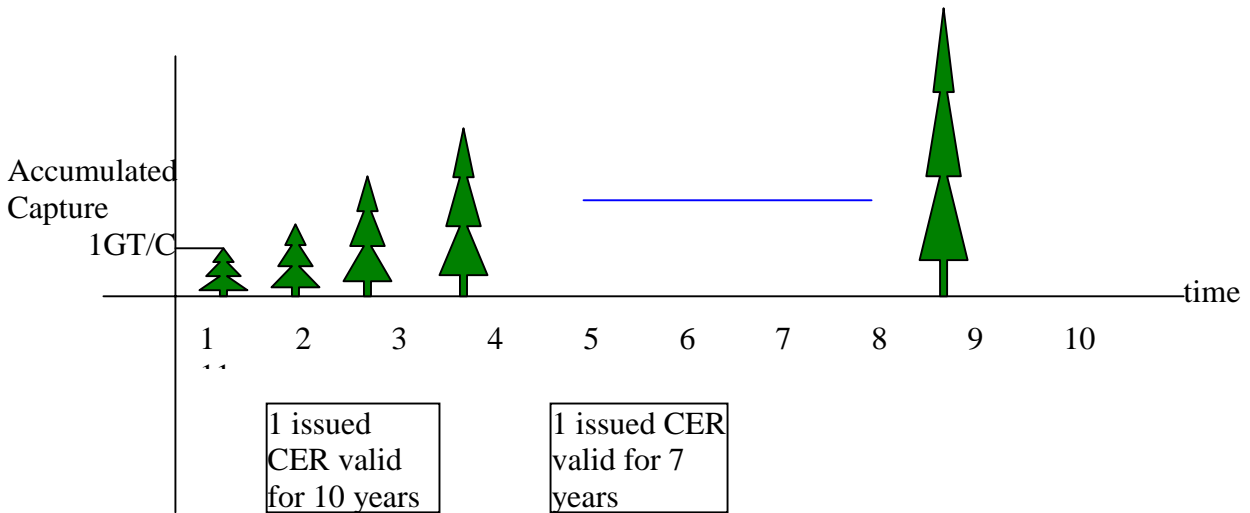
The system also permits time, research and development, and the advance of technology to develop lower cost permanent solutions to CO<sub>2</sub> emission reductions. For example, Annex I countries could invest in sinks projects with a 30-year life before expiration, that could be used to meet commitments during that period. In 30 years, when these CERs expire, renewable energy generation as hydrogen powered vehicles and emissions reduction technologies such or end-of-the-pipe-CO<sub>2</sub> capture could have become feasible and cost effective. In fact these two technologies have already fallen significantly in price since the mid 1990s due to intensive research and development.

In terms of the accounting framework of the Kyoto Protocol, the expiring CERs would be added to the assigned amount of the Annex I country when initially produced, but subtracted from the assigned amount of the Annex I country at the time when the CER expires.

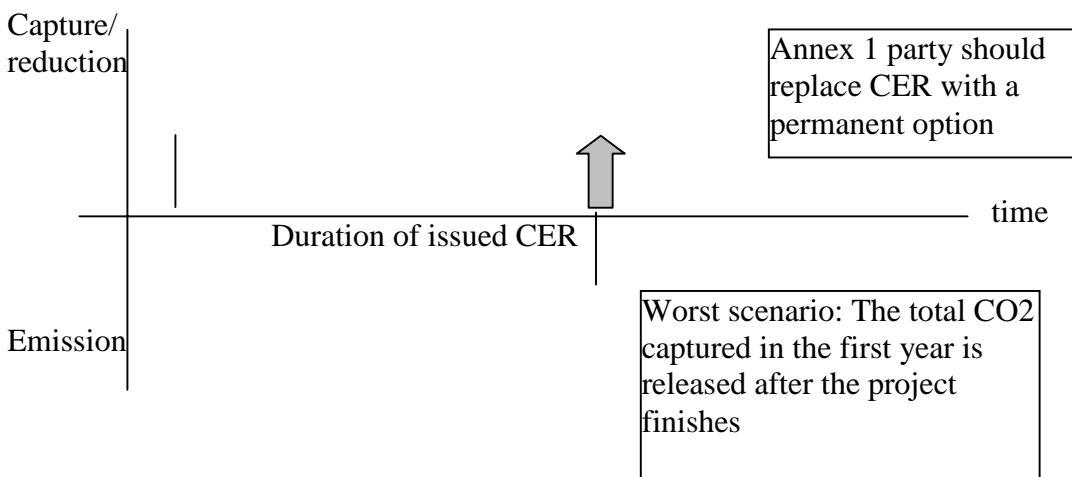


The following example will illustrate the scheme:

A forestry project removes 1 Gt C/year during, lets say, 11 years. The first removal takes place at year 1 and the last one at year 10. Lets assume that these removals are annually certified ex-post during the ten years, and that each year, a CER equivalent to 1 Gt C is issued. The first CER will be valid for a period of 10 years (the difference between the time when the project finished and the time when the CER was certified). The second will be valid for 9 years and so on.



Lets assume that the acquiring Party makes the first CER effective in 2009 in order to comply. Consequently it will be allowed not to reduce 1 Gt C that year. Given that the CER has an expiring time of 10 years, in 2019 that Party will have to make an additional reduction of 1 Gt C because the CER will be subtracted to its assigned amount.



From the atmospheric point of view 1 Gt of C was sequestered during the first year and kept stored at least during 10 years. In the worst scenario we can assume that the Party makes the

CER effective at the end of the first year and that the stored carbon in the project will be completely released to the atmosphere. In this scenario the release is compensated with a new permanent CER when the CER expires and therefore, carbon fluxes are balanced, being the stock of carbon in the atmosphere unchanged. In this respect, the lands will be freed to either establish a new CDM project or any other land use.

Nevertheless, in other scenarios, not all the carbon from the project will be released to the atmosphere, representing an extra environmental benefit not accounted for. Whatever the case may be, the owner of the project might choose to extend the lifetime of the project in order to maximize the value of the generated CERs.

From the acquiring party's point of view the expiring CER postponed the reduction for 10 years, which is equivalent to buying time. Its willingness to pay for the CER will depend on the difference between the actual cost for compliance and its expectation about the future cost for compliance. The final price for the expiring CER will be determined by the market equilibrium point of the demand (willingness to pay) and the supply (forestry projects costs).

The Party will acquire the CER only if the value of the expiring CERs plus the value of the compensation is less than the actual value of non-expiring CERs. The former scheme will create differential prices for expiring and non-expiring CERs. Furthermore, the price for the expiring CER will depend on its expiring time.

## CONCLUSIONS

1. The proposal solves the permanence issue while being neutral from the atmosphere point of view.
2. It is fully compatible with the Kyoto Protocol.
3. It gives a cost-effective way for Annex I to comply by allowing them a flexible alternative to postpone its emission reduction.
4. It releases the host country from a permanent commitment to land use, while allowing project proponents to commit themselves for an adequate lifetime of the project that maximizes the benefits.
5. The scheme is proposed for the worst case scenario in which the capture is totally released. Reality might show net environmental benefits.

PAPER NO. 6: FRANCE (ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES)

**EU PRELIMINARY COMMENTS ON THE CO-CHAIRS' TEXT**

This is the EU's response to the request from the Co-Chairs to provide written proposals on the Co-Chairs draft text. It is not a full statement of the EU's position and concerns on sinks.

The EU is of the view that decisions for Articles 3.3, 3.4, and 3.7 are intrinsically linked and should be viewed in their entirety

**A. DEFINITIONS**

Para 1. Delete.

Para 2. Delete.

Para 3. Option 1c is EU's preferred option.

The EU believes that the FAO definition with some flexibility allowing Parties to choose from a range of numeric values on tree height, crown cover and area is feasible. The EU will come back to exact range of numeric values at the later stage. For example 0.25 meter for tree height is too low. See also the EU's proposal on para 57 to review forest definition for the second and subsequent commitment periods.

Para 4. Delete.

Para 5. Delete "historically" and add in the end of sentence "for a period of at least 50 years."

Delete footnote 1.

Para 6. Add after "... to non-forest for a period of at least 20 years."

Remove brackets around "not".

Para 7. Paragraph is not needed if changes proposed by the EU on paras 5 and 6 are accepted.

Para 8. End sentence after "... to non-forest".

Delete "which is not immediately followed by the establishment of the same forest type on the same site".

Para 10. Delete.

Para 11. Delete [1 km<sup>2</sup>] and [10 km<sup>2</sup>]

This is to avoid that too large deforested areas are not being accounted.

Paras 12. to 16. Put brackets around all definitions.

It is premature to agree on final definitions before there has been proper exchange of views between Parties on treatment of activities under Art. 3.4. The EU reserves a right to come up

with concrete proposals on definitions at a later stage, if the COP decides that the concerns of scale, risk, and uncertainty are met.

## **B. ELIGIBILITY**

### **Eligibility**

Between paras. 17 and 18, the EU wishes to include :

- One para. indicating that only direct human induced activities are eligible. Proposed wording : *“The requirement for direct human induced activities signifies intent to establish forest by planting, seeding, or natural regeneration, or the intent to deforest, traceable to decisions affecting the land areas concerned. This requirement applies in all cases where forest land is converted to another land use”*.
- Another para. indicating that no activities are eligible for a Party if its total forest carbon stock is falling. Proposed wording : *“A Party shall not use carbon stock changes corresponding to Art 3.3 activities to help meet commitments through additions to its assigned amount if its total forest carbon stock is falling as shown by its greenhouse gas inventory estimated in accordance with the Revised 1996 IPCC Guidelines and any good practices adopted by the COP. For determination of this total forest carbon stock, a Party may choose to exclude carbon stock changes due to damage by natural disturbances from its inventory estimates”*

There is a need to include a provision on reporting on this consistency with MEA's. This is picked up in the chapter D (Reporting), para 53bis.

Furthermore, the EU has proposed another eligibility criterion in its submission that we would like to include in this section (see page 122 of document Misc.6):

*“Parties’ accounting of sinks credits under Art 3 shall be contingent on the requirements that:*

- a) national policies on the management, conservation and sustainable development of all types of forests be in place and are consistent with the Forest Principles as agreed on at the 1992 Rio Conference and are consistent with the recommendations of the Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests<sup>4</sup>,*
- b) national policies provide criteria and indicators for the sustainable development and management of forests as well as of other ecosystems in accordance with the Convention on Biological Diversity.”*

### **Inclusion of eligible activities under Article 3.4 in the second and subsequent commitment periods**

Para. 19. and 20. Delete.

#### **Option 3 : Establish a process to determine the inclusion of activities.**

Para. 21. This is EU's option which should be in the *italic* font with the following initial wording : *The COP decides to establish, prior to the fixing...*

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<sup>4</sup> Bearing in mind that national policies and accompanying criteria and indicators will be revised in line with developments of international policies.

### **Inclusion of eligible activities under Article 3.4 in the first commitment period**

#### **Option 1 : No additional activities unless scale, uncertainty, and risk issues resolved.**

Para. 22. This is EU's option ; parenthesis at the end this para. should read : (*see also paragraphs 34 to 38 and 41 to 46 which are relevant in this context*).

If concerns of scale, risk and uncertainty are met, the EU would propose the following text which combines elements from both options 2a (Para. 23) and 2c (Para. 25): “*A party may choose to apply during the first commitment period either the whole set of any agreed activities if occurring, or to apply certain of them, or to apply none of them provided that these activities have taken place since January 1990. A Party may account for additional activities leading to an increase in carbon stocks only if it also accounts for all activities which lead to a decrease in carbon stocks in accordance with methods to be agreed by the COP*”.

For the EU, it is important that « cherry picking » is prevented if applying final sentence of 3.4, and that both increases and decreases in carbon stock are taken into account for additional activities.

Paras 24. Delete.

## **C. ACCOUNTING**

### **Accounting**

Change title to: “Accounting for the first budget period”

Para. 26. Delete “net” in 3<sup>rd</sup> line, and insert “human induced” between “resulting from” and “land use”.

Para. 27. Place brackets around the whole of paragraph. Furthermore, 2<sup>nd</sup> reference to 3.4 in last line must be in brackets. Add “[3.3]” as an alternative to this reference to [3.4] at end of sentence.

### **Initiation of accounting during the commitment period**

Para. 28. Remove brackets

### **Duration of accounting**

Para. 29. Add the following sentence: “This requires an on-going monitoring responsibility of the land to maintain the addition to the assigned amount”.

### **Carbon pools**

Para. 30. Delete “and harvested wood products from deforestation activities”.

The EU notes that the consideration of harvested wood products has been postponed until 2001 according to conclusions of SBSTA-11.

### **Separating out natural uptake from human-induced effects on lands that are subject to LUCF activities but that have not undergone a LUC since 1990 (33-38)**

Change title into “Separating out the carbon stock changes resulting from human-induced activities since 1990”.

We understand the co-chairman's proposal to separate the issues of “separation of human induced effects” and “limiting credits for first commitment period” in their elements paper.

We do note that there is also a relationship between these issues. Some of the tools proposed

in the para's 34-37 and 41-46 can deal with both issues at the same time during the first commitment period.

Para. 33. Delete

Para. 34. Replace this paragraph with original EU proposal (on page 120 of MISC. 6): "*Only additional agreed activities which can be shown to have a detectable intentional human induced effect on carbon stocks shall be accounted under the provisions of Art 3.4. This requirement shall be tested using verifiable statistical data to show that the hypothesis, that the activity has no detectable intentional human induced effect, can be rejected with 10% significance.*"

#### **Limiting debits and credits from article 3.3 for all commitment periods (39-40)**

Para. 39. This paragraph can be bracketed because it is probably redundant, given proposals for paras 6 and 7.

Para. 40. This paragraph should be bracketed.

Para. 41. The EU supports inclusion of the idea in this paragraph subject to the strong constraints with which it was introduced, such as those contained in para. 146 of FCCC/SBSTA/2000/9.

Paras. 42, 43, and 43. Insert "net" between "verifiable" and "increases".

Para. 46. Delete "absolute value of the 95" and replace it with [X].

Para. 47. Delete final sentence of this paragraph, which is redundant with para 48.

Para. 49. Put entire paragraph in square brackets.

The EU agrees that clarification of the coverage of emissions included under the final sentence of Art 3.7 could be useful, but the present formulation needs further discussion.

## **D. MEASURING AND REPORTING**

Title of section D should read "**Monitoring, reporting and reviewing**"

Para. 51. Insert square brackets and modify text as follows: "...via guidelines [on the national inventory system under Art 5.1][for reporting of supplementary information under Art 7.1] of the..."

Para. 52. Replace "Net changes..." by "Reporting and reviewing of changes..."

An additional paragraph 53bis is proposed (see original EU submission, paras 1/xix and 2/xii on page 118 and 121 of document Misc.6, amended to chair's proposal for para 18):

*"Parties shall report to the relevant international organisations on how implementation of land use, land use change and forestry activities included under the provisions of Art 3 are consistent with the Convention on Biological Diversity, the Convention to Combat Desertification, the Ramsar Convention, the Rio Forest Principles, and Agenda 21."*

## **E. FUTURE WORK**

Para. 54. Delete entire para and replace by: "The IPCC is invited to develop, by [date/meeting], guidance on good practices and uncertainty management to cover inventory methods and accounting in the area of LULUCF, including the requirements for verification, measurement, estimation, assessment of uncertainties, monitoring, and reporting of net carbon stock changes and greenhouse gas emissions and removals associated with Articles 3.3, 3.4 and 3.7 of the Kyoto Protocol".

Para. 56. Insert new para to read: “The COP will establish, prior to the fixing of quantified objectives for the second commitment period, a list of agreed additional activities for use in the second and subsequent commitment periods, together with rules, modalities and guidelines for their accounting”.

Para. 57. Insert new para as follows: ‘The COP requests the SBSTA to review the definition of a forest for the second and subsequent commitment periods in order to reflect biome specific circumstances. For this end, the IPCC will be further requested to develop a biome specific forest definition, taking account the work of other relevant international bodies such as FAO’

Under *Further to consider* second bullet should read ‘Articles 7.1 and 7.2’

PAPER NO. 7: JAPAN

***“ELEMENTS RELATED TO ARTICLES 3.3 AND 3.4;  
CO-CHAIRMEN’S TEXT”***

Japan would like to thank to co-chairmen’s effort for preparing the “Co-chairmen’s text,” which is a good basis of draft decision at COP6. Japan would like to submit following comments on the text.

**p2, A. DEFINITIONS**

p2, “Forest,” para 3.

Japan basically supports Option 1c: para 3, however, requests to revise some part of the para:

Line 3: “between 10 and 25” should be changed to “between 10 and **30**“

Line 8: same revision as above

Line 11: same revision as above

Line 3: “Select a threshold of between 0.5 and 1” should be changed to “select a threshold of between **0.3** and 1”

Line 9: same revision as above

p3, “Reforestation,” para 6.

Japan supports FAO Activity based definition. To make the meaning of the sentence clearer, revise the para 6 as follows:

“6. “Reforestation” is the conversion of non-forest to forest on land that historically was forested, but that has been converted to non-forest **and re**-establishment of the forest through planting, seeding and natural regeneration following harvesting.”

(Merge two sentences into one and delete the whole part after the word, “will”.)

p3, “Deforestation,” para 8.

Revise the para 8 as follows:

“8. “Deforestation” is the conversion of forest to non-forest.”

(Delete the whole part after the word, “which”.)

p4, “Is forest harvesting considered deforestation?” para 10

Japan has a concern that para 10 may have a significant problem on the aspects of implementation. In that sense, *Japan would like to request to put the whole para 10 into brackets.*

p4, “Size of the assessment unit,” para 11

For para 11, considering the implementation of this para through Global Information System, *10ha threshold of the area size has significant technical difficulty.*

p4, “Forest management,” para 14

The range of managed forests should be decided reflecting on each country’s legal or practical situation. *Therefore, the second sentence of this para should be put into brackets and add one sentence, which read as follows:*



“... and services. **[Managed forests are lands, which are subject to forest management as human-induced activity including planting, weeding and thinning.]** [Managed forests .....are inaccessible.] Carbon ...”

In addition to this addition of the bracketed sentence, Japan would like to request to set a new paragraph after para 14 regarding definition of the 3.4 activity as follows:

“ **(14'.) Protection of natural forest**

**Protection of natural forest includes human-induced activities conducted in natural forests such as a ban on tree cutting. ”**

**p5. B. ELIGIBILITY**

*p5, “Eligibility,” para 17*

Revise para 18 as follows:

“ 18. **In the** implementation of land-use, land-use change and forestry activities included under the provisions of Article 3 of the Kyoto Protocol, **each Party shall take into account its commitments under relevant international environmental agreements and promotion of sustainable forest management practices.**”

*p5, “Inclusion of ...periods,” para19*

Revise para 19 as follows:

“ 19. All (human-induced) activities **related to** changes in greenhouse gas emissions by sources and removals by **sinks in agricultural soils and land-use change and forestry categories** other than afforestation, reforestation and deforestation **under Article 3.3** shall be **included** under Article 3.4 **for** the second and subsequent commitment periods.”

*p5, “Option 2: Approve ... periods,” para 20.*

Add the term “protection of natural forest” to para 20 and revise para 20 as follows:

“20. The following human-induced activities\_\_ other than afforestation, reforestation and deforestation **under Article 3.3** shall be **included** under Article 3.4 **for** the second and subsequent commitment periods: [revegetation], [forest management], [**protection of natural forest**, [cropland management] ...”

*p6, “Option 2a: Apply all ... activities,” para 23.*

Revise para23 as follows:

“23. **For** the first commitment period, Parties may choose **to include all additional human-induced activities under Article 3.4** listed in paragraph --- above, for the second and subsequent commitment periods.”

*p6, “Option 2c: Party chooses ... applies,” para 25*

Japan supports para 25 for the inclusion of eligible activities under Article 3.4 for the first commitment period and requests to revise the para 25 as follows:

“25. Parties shall report.....before the start of the first commitment period, which **additional activities under Article 3.4 it elects to include for the first commitment period**. Such activities shall be limited to those, or a subset of those, listed in paragraphs 19 and 20 above. **Such an election should be fixed through first commitment period.**”

p6. C. ACCOUNTING

p6, "Accounting," para 26

Revise para26 as follows:

"26. Subject to paragraph ..... equal to **the net emissions of CO<sub>2</sub>**, measured as verifiable changes in carbon stocks, and **net emissions of non-CO<sub>2</sub> greenhouse gases** during the period 1 January 2008 to 31 December 2012 **related to** land-use, land-use change and forestry activities under Article 3 **which have taken place** since 1 January 1990. Where .....assigned amount."

p6, "Accounting," para 27

Revise para27 as follows:

"27. If an area of land is subject to Article 3.3 activities as well as Article 3.4 activities, it shall be accounted for under **Article 3.3 after this becomes the case**.

p7, "Initiation of accounting ..... period," para 28

Revise para28 as follows:

"28. Accounting of net changes in carbon stocks and **net emissions of non-CO<sub>2</sub> greenhouse gases related to** land-use, land-use change ....."

p7, "Duration of accounting," para 29.

Revise para 29 as follows:

"29. Once.....all GHG emissions and removals occurring.....over subsequent commitment periods.

(Delete the word, "changes," before the word, "GHG," and the word, "and contiguous," before the word "commitment period.")

p7, "Carbon Pools," para 31.

Since para 31 contains ambiguity on implementation for demonstrating that the pool in question is not a source, Japan would like to request to revise the para31 as follows:

"31. Parties shall account for **changes in** all carbon pools ...Article 3, but may choose not to account for **changes in any given pools** in a commitment period if transparent and verifiable information **demonstrating justification is provided**."

p7, "Non-CO<sub>2</sub> gases," para 32

With the same reason on revising the para 31, Japan requests to revise para 32 as follows:

"32. Non-CO<sub>2</sub> **greenhouse gases emissions** and/or removals **related to** land-use, land-use change and forestry activities under Article 3 shall be accounted for in accordance with **the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories as required by Article 5.2, any future updates of (parts of) these Guidelines and, possible future good practice guidance to be developed by the IPCC on land-use, land-use change and forestry. Parties may choose not to account for emissions and/or removals of any non-CO<sub>2</sub> greenhouse gases in a commitment period if transparent and verifiable information demonstrating justification is provided**."

p7, "Separating out the natural ..... since 1990," para 33

Revise para 33 as follows:

"33. GHG emissions or removals as a result of ....."

(Delete the first two words, "Changes in.")

p8, "Limiting debits and credits ..... periods," para 39 through 41

Paragraph 39 is contradictory to paragraphs 6 and 7 which define reforestation as establishment of forest on the land which contains forest in 1990. In addition to this, as this "Co-chairmen's text" will not exclude any option which Parties propose, the option of no limitation of credits from Article 3.3 for all commitment period should be reflected to the text. In this regard Japan would like to propose that *paragraphs 39 through 41 should be put into brackets.*

p8, "Limiting credits from Article 3.4 .....period," para 42 through 46.

As this "Co-chairmen's text" will not exclude any option which Parties propose, the option of no limitation of credits from Article 3.4 for the first commitment period should be reflected to the text. In this regard Japan would like to propose that *paragraphs 42 through 46 should be put into brackets.*

**p9. D. MEASURING AND REPORTING**

p9, para 51

Japan has a concern that para 51 may have a significant problem on the aspects of implementation. In that sense, *Japan would like to request to put the whole para 51 into brackets.*

PAPER NO. 8: MEXICO, REPUBLIC OF KOREA AND SWITZERLAND  
(ENVIRONMENTAL INTEGRITY GROUP)

**COMMENTS TO THE CO-CHAIRMEN'S TEXT ON ELEMENTS  
RELATED TO ARTICLES 3.3 AND 3.4  
LULUCF BY THE ENVIRONMENTAL INTEGRITY GROUP**

- We commend the co-chairs for the excellent text they provided to work from within the contact group on LULUCF matters on the way towards COP6. We also welcome the contribution towards a preamble as offered by G77 to serve as a basis for a chapeau to the co-chairs' text. We strongly feel that such a preamble is the proper place to describe the guiding principles underlying the co-chairs' text dealing with definitions, eligibility, accounting, measuring and reporting, and future work. In addition, we like the way this preamble explains to the reader how elements of Articles 3.3 and 3.4 relate to articles 5, 7, 8, and 12 of the Kyoto Protocol and where cross-cutting issues are addressed.
- One important guiding principle for accounting is the factoring out of effects like CO<sub>2</sub>-fertilization, Nitrogen deposition, and growth enhancing climate change effects on C sequestration rates. We are in favor of a feasible, scientifically and technically implementable, verifiable and transparent measuring and accounting of greenhouse gas emissions by sources and removals by sinks. Such an approach is best reflected by the concept of full C-accounting, since it comprehensively includes all pools on all lands affected by human induced activities under Articles 3.3. and 3.4. However, a full C accounting approach implies at the same time as e.g. changes in C stocks are measured, measurement of effects such as CO<sub>2</sub>-fertilization, Nitrogen deposition, and growth enhancing climate change effects on C sequestration rates, which result in the residual terrestrial uptake of 2.3±1.3 Gt C per year (p.5, Table 2, SPM SR IPCC LULUCF). This corresponds to about three times the total emission reduction commitments for the first commitment period of the Kyoto Protocol according to Article 3.1. We strongly advocate that the amount of C sequestered thanks to CO<sub>2</sub>-fertilization, N deposition, and growth enhancing climate change effects should not result in credits. In order to reconcile this principle with a full C-accounting approach, we invite the members of the contact group and the co-chairs to consider our proposal for introducing a threshold in the final step of the accounting framework. This would lead to the subtraction of an estimate of the effects of CO<sub>2</sub>-fertilization, N deposition, and growth enhancing climate change effects, e.g. as determined by IPCC, possibly on a biome specific basis. A possible average value for such a threshold to be subtracted from all removals by sinks of 0.5 t C/ha/year as cited by IPCC experts during the Poznan Workshop and SBSTA 13. Moreover, the threshold approach offers the advantage to allow for an adjustment in order to account also for uncertainty and permanence issues related to sinks.
- A full C-accounting approach requires to address the eligibility of activities not only under Article 3.3, but also under Article 3.4. A guiding principle for a well balanced package of activities under Articles 3.3 and 3.4 and the associated C accounting should be the symmetrical accounting for all emissions of CO<sub>2</sub> and non-CO<sub>2</sub> greenhouse gases by sources and removals by sinks. It appears, however, that such a full C accounting approach requires a strict implementation of separating human

induced and natural effects as described above. This implies that processes are initiated which help to improve science, technology, and methodologies related to the implementation of the Kyoto Protocol. Activities eligible under Article 3.4 need a more specific definition. In this respect, we consider the definitions of activities in the co-chairs text as specifying only a minimum of requirements and we hope that improvements will be made on the way towards COP6.

- The group wishes to express its concerns regarding the need to include in the Chairman's text specific links of Art. 3.3 and 3.4 to Art. 12 in order to account for issues related to LULUCF projects in the CDM. We wish to bring to your attention the groups position regarding guiding principles for the highly conditional inclusion of LULUCF projects in the CDM. (1) Acknowledge the rights, needs and concerns of indigenous peoples and other land owners by ensuring the active involvement of stakeholders in the design and implementation of projects; (2) Ensure that projects are environmentally sound and sustainable by: (i) avoiding conversion of native ecosystems and other negative impacts on biodiversity; (ii) promoting ecosystem restoration to maximize benefits; (iii) complying with national laws and regulations and other related international treaties and conventions; (3) Conform with agreed guidelines and mechanisms to account for risks, particularly permanence, and ensure a rigorous monitoring. Specific recommendations include: (a) Take into consideration that definitions designed for Art. 3.3 will also be applied to CDM projects; (b) Eligible activities under Art. 3.4 should be generally consistent with those criteria accepted for CDM projects. Regarding this issue, the group agrees that activities to be considered for CDM projects could be presented in the form of a "positive list" of broadly defined activities that could include, inter alia, afforestation, reforestation, revegetation, conservation, improved forest management, and improved cropland and grassland management. Once the CDM starts its operation, host countries will determine which activities will be eligible.

PAPER NO. 9: NEW ZEALAND

**SUBMISSION ON LULUCF CO-CHAIRMEN'S TEXT FCCC/INFORMAL/74**

This submission is made on behalf of New Zealand and relates to the Co-Chairmen's text FCCC/INFORMAL/74 dated 8 September 2000. Paragraph references in this document correspond with the paragraph numbering in the Co-Chairmen's text.

New Zealand welcomes the opportunity to provide additional comments on the Co-Chairmen's text and congratulates both the Co-Chairmen and the Secretariat for their efforts to finalise draft LULUCF text for negotiation later on in the year at COP 6.

New Zealand Comments on Co-Chairmen's Text

As a general comment, New Zealand notes Decision 9/CP.4 and that the Co-Chairmen's text should reflect the wording of this decision where appropriate.

**Paragraph 3 – Definition of Forest**

New Zealand suggests that the minimum threshold for tree height (currently drafted as 0.25m) should be revised upwards. The minimum height specified in Parties submissions is 2m, which we believe would be a more appropriate minimum for this range.

**Paragraphs 5, 6 and 8 – Definitions of Afforestation, Reforestation and Deforestation**

New Zealand notes the exclusion of the term 'direct human-induced' from these definitions and suggests that it be included in all three definitions. Alternative definitions for ARD activities are submitted below:

“Afforestation means the direct human-induced conversion of land to forest that has not historically been forested.

“Reforestation means the direct human-induced conversion of land to forest that has historically been forest but has been converted to land that has no forest.”

Regarding reforestation, New Zealand notes the linkage to, and strongly supports, paragraph 39 of the Co-Chairs text that would eliminate the perverse incentive to deforest existing forests, allowing a temporary land use change before replanting to gain credits over the first commitment period.

“Deforestation means the direct human-induced conversion of forest to land that is not forest.”

**New Paragraph 6 bis – Definition of Afforestation & Reforestation Activities**

New Zealand submits a new paragraph 6 bis to provide clarity of afforestation and reforestation activities:

“Afforestation and reforestation includes planting, seeding and regeneration that is directly human-induced.”

### **Paragraph 7 – Meaning of ‘Historic’**

Replace the word ‘since’ in line two with the words ‘prior to’. This would establish that historic means any period prior to 1 January 1990.

### **Paragraph 10 – Is Forest Harvesting Considered Deforestation?**

New Zealand prefers the textual language contained in its 1 August submission (see paragraph 4):

“Annex B Parties shall report in accordance with Article 7 of the Kyoto Protocol on the means by which harvesting or some other forest disturbance intended to be immediately followed by the re-establishment of the forest, has been distinguished from deforestation when, during 2008-2012 by comparison with 1990, it may otherwise appear that deforestation has occurred. This reporting will be subject to review in accordance with Article 8.”

### **Paragraph 11 – Size of the Assessment Unit**

This paragraph may sit better under the accounting section. New Zealand also submits that a determination of the area deforested should be based on “land cover and carbon density characteristics detectable at the spatial resolution by which the conversion from forest to some other land use is able to be ascertained for each Annex B Party. Parties shall report on their determination in accordance with Article 7, which will be reviewed in accordance with Article 8 of the Kyoto Protocol.”

### **Paragraph 17 - Eligibility**

The terms ‘afforestation’, ‘reforestation’, ‘deforestation’ and ‘direct human-induced’ should be inserted into this paragraph.

### **Paragraph 26 – Accounting**

This paragraph should contain a clear differentiation between Article 3.3 and Article 3.4 activities. Such a differentiation would reflect the substantive differences between the two clauses. As currently drafted paragraph 26 is not consistent with decision 9CP.4.

Suitable text to deal with Article 3.3 would be:

“Subject to (n) the adjustment to a Party’s assigned amount resulting from direct human-induced activities of afforestation, reforestation and deforestation shall, for the first commitment period, be equal to verifiable changes in carbon stock during the period 1 January 2008 to 31 December 2012. Subject to paragraph xx below, where there is a net increase in carbon stock, the value shall be added to a Party’s assigned amount. Subject to paragraph xx below, where there is a net decrease in carbon stock, the value shall be subtracted from a Party’s assigned amount.

Paragraph xx. The treatment of decreases in carbon stock associated with harvested wood products shall be in accordance with decisions by the COP following the consideration by the SBSTA on this matter (*to commence at SBSTA 14*).

Similar text will need to be developed for Article 3.4.

### **Paragraph 30 – Carbon Pools**

Any text in this decision dealing with harvested wood products should reflect the current situation where substantial technical issues raised by the IPCC's previous work, notably the Dacca workshop, has yet to be considered by the SBSTA. We note that the harvested wood products question is scheduled to be considered as part of the agenda for SBSTA 14. Elements of this decision that reference harvested wood products should follow SBSTA's consideration and the completion of any further work requested from the IPCC.

This matter is dealt with in the paragraph xx proposed above.

### **Paragraph 32 – Non-CO<sub>2</sub> Gases**

This paragraph should contain reference to Articles 3.3, 3.4 and 3.7 of the Kyoto Protocol.

### **Paragraph 40**

This paragraph should be amended to read "Debits resulting from harvesting in any commitment period..."

This change provides clarity and certainty for the manner in which these matters are accounted for.

### **Paragraph 54 – Future Work**

It is inappropriate for to request the IPCC to complete further methodological work on harvested wood products given that this has yet to be considered by the SBSTA.



PAPER NO. 10: NORWAY

**ELEMENTS RELATED TO ARTICLES 3.3 AND 3.4 (DOC 08/09/00 20:10:38)**

**A. DEFINITIONS**

**Forest**

Norway supports option 1.c, as described in para 3 with the following amendments:

- area of more than ~~0.5~~**0.2** – 1 ha, and minimum height of ~~0.25~~**2** and 5 metres (m) at maturity.
- We suggest inclusion of the following sentence (from option 1.b in para 2) in the end of para 3: *“The definition must be used consistently in the first commitment period.”*

Our reasoning behind choosing this definition, is that it is based on elements from the FAO definition, and will thus assist Parties in using their current forest data for the purposes of reporting on article 3 of the Kyoto Protocol.

**Afforestation, reforestation and deforestation**

Norway sees the need for a definition of direct human-induced activities related to ARD, included under the respective definitions.

**Para 6:** In the second sentence the square brackets around ‘not’ should be deleted.

**Para 7:** Norway proposes the following changes to paragraph 7, to prevent perverse incentives, such as obtaining credits from converting natural forests to plantations:

... *“historic” is considered to mean ~~since~~**before** 1 January 1990 or 20 years prior to the start of the activity.”*

If this concern could be met in other parts of the text or by another phrasing, we could support this.

**Para 8:** Norway would like the last part of the sentence to be deleted:

Deforestation is the conversion of forest to non-forest ~~which is not immediately followed by the establishment of the same forest type on the same site.~~

**Para 9** should be added to para 8.

**Para 10:** Norway supports this approach, but would like one word to be replaced for clarification:

*“... re-establishment of forest following harvesting takes place in the ~~next~~**succeeding** commitment period.”*

**Para 11:** Norway would like the assessment units for determination of deforestation to be the same as for forests, i.e. 0.2 - 1 hectare.

## Revegetation

For the sake of symmetry, a definition of “Devegetation” should also have to be included.

## Forest management

Norway proposes a change in the third sentence: “

*“.....Carbon sequestration is one of the multiple functions of sustainable ~~managed forests~~ forest management.....”*

Norway is questioning the relevance of the last sentence (Forest management activities... to meet goals set by the forest owner.) in this context.

## B. Eligibility

### Eligibility

**Para 17. bis:** We think that the time constraint in the last sentence of Article 3.4 should be treated similarly to Article 3.3. We therefore suggest the following phrase to be included:

*“For Article 3.4, eligible additional activities are those that meet the requirements set forth in this decision and, for the first commitment period, that have taken place or since 1 January 1990 or in a year subsequent to 1990, but before the end of December of the last year of the commitment period.”*

**Para 18:** We strongly support this para, but to make it more comprehensive we suggest the following inclusion at the end of the paragraph (after Agenda 21):

*“taking into account the UN process on forests (IPF, IFF, UNFF)”*

Inclusion of eligible activities under Article 3.4 in the second and subsequent commitment periods

Of the three options listed, we would like to support option 3. This is explained below. We have included a minor editorial change to the two other options.

**Para 19:** We propose the following change to the paragraph: All human-induced activities in the agricultural soils and the land use change and forestry categories, and their associated changes.

**Para 20:** We propose the following change to the paragraph: The following human-induced activities in the agricultural soils and the land use change and forestry categories, and their associated changes.

**Para 21:** We believe that it is somewhat premature to agree on the activities to be included in the second and subsequent commitment periods at this point in time, which is the reason why we support this option. It is first of all important to agree on these activities prior to fixing the

quantified commitments, so that effects from LULUCF are taken into account when commitments are made. We do however, see the need for the establishment of a process to include these elements under the SBSTA workplan as soon as possible after COP6, to provide incentives to improving forestry and agricultural practices.

### **Inclusion of eligible activities under Article 3.4 in the first commitment period**

**Para 22-25:** Of the four options mentioned, we do not support options 2a and 2c. We could support the two other options, but the choice will depend on what (and if) limitation rules are agreed. If no limitation rules are agreed and there is no separating out of natural effects, we would support option 1. If credits from Art. 3.4 for the first commitment period, are strongly limited according to accepted rules, then we would support option 2b.

### **C. Accounting**

**Para 26-32:** We think all of these accounting rules are acceptable, and would in that regard like to mention paragraphs 29, 30 and 32 in particular, which we think are very important to include.

On paragraph 27, we think it is more valuable for the second and subsequent commitment periods, since we expect that the credits under Article 3.4 will be limited for the first commitment period. We also see that this accounting rule could create perverse incentives; that is if you get a minus (emissions) from the land calculated under Art. 3.3, but at the same time you have a 3.4 activity on the land resulting in an uptake.

Paragraph 28 is OK if brackets are deleted.

On paragraph 30 we would like to point out that the inclusion of wood products would necessitate an estimation methodology that separates wood products originating from Articles 3.3 and 3.4 activities from wood due to harvesting in other parts of the forest system. The Parties should also decide which of IPCC's three different accounting approaches should be used to verify the carbon stock changes in wood products.

### **Para 33- 38 (Natural uptake)**

In principal we support the separation of natural effects from human induced effect for Article 3.4 activities, provided that sufficient scientific methodologies exist or have been developed.

**Para 39 and 40:** We support the inclusion of both paragraphs to prevent perverse incentives, such as obtaining credits for converting natural forest to plantations, defining this as reforestation.

**Para 41:** We support this paragraph, provided that there is an additional provision that the Party can verify that their total carbon stock has increased since 1990 and during the first commitment period.

**Para 42-46:** As stated in our submission we believe that Parties should anticipate a clearly limited credit from article 3.4 activities for the first commitment period. Hence Norway supports inclusion of methods that limit the credits as described in paragraph 42 to 46. We believe that one should aim for limitation methods that give best incentives to enhance their carbon stock. Therefore it is our preliminary view that a discount rate or a threshold would provide the best incentives.

We have also sympathy for inclusion of a limitation method to address uncertainty, see paragraph 46. For clarification we wonder if not the paragraph should be rephrased in such a way that it takes into account that when debiting, the upper bound of the absolute value of 95 per cent confidence interval should be chosen.

PAPER NO. 11: PARAGUAY

*Paraguay and the 13th Meeting of the Subsidiary Body for Scientific, Technological and Technical Advice (SBSTTA) of the United Nations Framework Convention on Climate Change (UNFCCC).*

**PRESENTATION**

Paraguay is signatory of, and has ratified by Law N° 251/94, the United Nations Framework Convention on Climate Change (UNFCCC), and the Kyoto Protocol (KP), by Law N° 1447/99.

Likewise, by presidential decree N° 6754/99 a National Joint Implementation Commission was created, to grant the technical, judicial and institutional framework to the flexibility mechanisms foreseen in the Kyoto Protocol, giving special attention to the Activities Implemented Jointly (AIC) and the future Clean Development Mechanisms (CDM).

Paraguay has concluded its “1990 Greenhouse Gases Inventory”. Meanwhile, the “First National Communication for the UNFCCC” is in process, its conclusion expected for December 2000. Within this framework, activities for the elaboration of the “1994 Greenhouse Gases Inventory” have been finalized.

The present document is a summary that contains the main national interest issues, to adopt a position in the next SBSTTA –UNFCCC Meeting, to take place in Lyon, France September 4 – 15, 2000.

**MAIN TOPICS TO BE NEGOTIATED IN LYON AND THE HAGUE**

The following are the main topics on which some resolution is to be adopted in the next months of year 2000:

- **Technology Transfer**
- **Non-Annex 1 countries capacity building.**
- **Vulnerability and Adaptation of the countries to the modifications of the world climatic system, obligations of Annex 1 countries towards Non- Annex 1 countries.**
- **The future of the Activities Implemented Jointly (AIJ).**
- **The approaches for Sustainable Development in the CDM, their elaboration in the national contexts and the influence of the international context.**
- **Land Use, Land Use Change and Forestry in the CDM.**
- **Base Line determination, general or specific.**
- **The Clean Development Mechanisms Model and their future operation.**
- **Tradability of the Certified Emissions Reductions (CERs).**
- **Mechanisms of the Kyoto Protocol and aspects related with the design of the Clean Development Mechanism**
- **Articles 5, 7 and 8 of the Kyoto Protocol.**

## HIGH-PRIORITY TOPIC FOR PARAGUAY

➤ *Methodological aspects: Land Use, Land Use Change and Forestry. (LULUCF)*  
*Ref. FCCC/SBSTA/2000/CRP.2*

- Paraguay is in favor of positions that follow the final objective of the Convention and the common but differentiated responsibilities principle. LULUCF is of high importance for the country, considering its natural resource base.
- Paraguay, in regard to article 4.1.d of the UNFCCC, is in favor of the promotion of the sustainable management, and conservation and enhancement as appropriate of sinks and GHG reservoirs, including biomass, forests and other terrestrial and coastal ecosystems.

Paraguay is in favor of those positions committed to the inclusion of forests and forestry sector activities in the Clean Development Mechanism, recommending the analysis of the inclusion of native forest conservation in the CDM. At the same time, this should contribute to achieving the most appropriate definition relating to both national objectives and Convention objectives with respect to the concepts of reforestation, afforestation and deforestation. Native forest inclusion is of particular importance since the inclusion of activities of reforestation and afforestation may have adverse effects on these forests by assigning a lower value to them not considering environmental services they offer.

Article 12 of the Kyoto Protocol, that provides the framework for the Clean Development Mechanism, indicates that its objective is to assist countries not in Annex I to achieve sustainable development and contribute in this manner to the ultimate objective of the Convention. In this context, the conservation of native forests and regeneration projects are of great importance to countries such as Paraguay. These would permit achieving multiple objectives through the Convention such as reduction of deforestation and the adoption of techniques in sustainable management of forests, assisting local communities to improve their socioeconomic status and environment, increasing the transfer of technology and conserving biodiversity.

Article 3.3 of the Kyoto Protocol mentions reforestation, afforestation and deforestation as activities that can be used to comply with the commitments of reduction by Annex B countries of the protocol. Several Latin American countries are in favor of inclusion of these activities in the CDM since these may lower deforestation rates of native forests in the region and in this manner achieve one of the premises of Sustainable Development as indicated in article 12.2 and 12.3 of the Kyoto Protocol.

*Paraguay y la 13ra. Reunión, del Cuerpo Subsidiario para el Asesoramiento Científico y Tecnológico, y del Cuerpo Subsidiario de Implementación, de la Convención Marco de las Naciones Unidas sobre el Cambio Climático (CMNUCC).*

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## **PRESENTACION**

El Paraguay es país signatario, y ha ratificado, la Convención Marco de las Naciones Unidas sobre el Cambio Climático (CMNUCC), bajo la Ley No. 251/94, y el Protocolo de Kyoto (PK), bajo la Ley No. 1447/99.

Asimismo ha creado por Decreto del Poder Ejecutivo No. 6754/99, una Comisión Nacional de Implementación Conjunta, para otorgar el marco técnico, jurídico e institucional, a los mecanismos de flexibilidad previstos en el Protocolo de Kyoto, con especial atención, hacia el denominado de “Actividades Implementadas Conjuntamente” (AIC) y hacia el futuro Mecanismo de Desarrollo Limpio (MDL).

De la misma manera, el país ha finalizado su “Inventario 1990 de Gases de Efecto Invernadero”, se encuentra en proceso de elaboración la “Primera Comunicación Nacional ante la CMNUCC”, cuya finalización se espera para el mes de diciembre del 2000, y en el marco de la misma se han finalizado los trabajos para la elaboración del “Inventario 1994 de Gases de Efecto Invernadero”.

Asimismo, el Paraguay, con el deseo de colaborar de la mejor manera a su alcance con los objetivos de la 13ra. Reunión, ha avalado y otorgado la condiciones técnicas, institucionales y jurídicas, para que el recurso humano paraguayo más entrenado pueda acompañar y cooperar en las negociaciones y decisiones a ser tomadas en la 13ra. Reunión. Para tal fin el Paraguay ha realizado un importante trabajo participativo, con los sectores gubernamentales, no gubernamentales y académico, para la obtención del presente documento. De la misma forma la Delegación paraguaya ante la 13ra. Reunión posee una importante diversidad institucional.

El presente documento, es un resumen que contiene los principales elementos de interés nacional, para adoptar una posición en la próxima reunión de los Cuerpos Subsidiarios de la CMNUCC, a realizarse en Lyon, Francia del 4 al 15 de setiembre del 2000.

## **LOS PRINCIPALES TÓPICOS A SER NEGOCIADOS EN LYON Y LA HAYA**

A modo de resumen, a continuación se encuentran los tópicos principales sobre los que deberá adoptarse algún tipo de resolución en los próximos meses del 2000:

- **Transferencia de Tecnología.**
- **Fortalecimiento de Capacidades de los países No Anexo I.**
- **Vulnerabilidad y Adaptación de los países a las modificaciones del sistema climático mundial, obligaciones de los países del Anexo I para con los No Anexo I.**
- **El futuro de las Actividades Implementadas Conjuntamente AIC.**
- **Los criterios para el Desarrollo Sostenible en el Mecanismo de Desarrollo Limpio, su elaboración en los contextos nacionales y la influencia del contexto internacional.**
- **Uso de la Tierra, Cambio de Uso de la Tierra y Silvicultura en el Mecanismo de Desarrollo Limpio.**
- **La determinación de las Líneas de Base, generales o específicas**
- **El Modelo del Mecanismo de Desarrollo Limpio y su futuro funcionamiento**

- **El Comercio de los Certificados de Reducción de Emisiones.**
- **Procedimientos y mecanismos relacionados con los compromisos bajo el Protocolo de Kyoto**
- **Artículo 5, 7 y 8 del Protocolo de Kyoto**

#### **TÓPICO PRIORITARIO PARA EL PARAGUAY**

➤ ***Aspectos Metodológicos: Uso de la Tierra, Cambio de Uso de la Tierra y Silvicultura.***  
**Ref. FCCC/SBSTA/2000/CRP.2**

- El Paraguay argumenta hacia aquellas posiciones que siguen la dirección del objetivo último de la Convención y el principio de responsabilidades comunes pero diferenciadas. El área temática de Uso de la Tierra, Cambio de Uso de la Tierra y Silvicultura es de alta importancia para el país, teniendo en cuenta las condiciones naturales que el mismo presenta.
- El país, en virtud del Artículo 4.1.d de la CMNUCC, argumenta a favor de la promoción de la gestión sostenible, la conservación y el reforzamiento de los sumideros y depósitos de los Gases de Efecto Invernadero, incluyendo la biomasa, los bosques y otros ecosistemas terrestres y costeros.

A éste respecto, el Paraguay debería argumentar a favor de aquellas posiciones comprometidas con la inclusión de los bosques y las actividades del sector forestal en el Mecanismo de Desarrollo Limpio, contribuyendo a lograr la definición más apropiada, para los fines nacionales y de la Convención, al respecto de los conceptos de Reforestación, Forestación y Deforestación; y argumentando a favor del análisis de la inclusión de los bosques naturales en el MDL. Este último aspecto reviste particular significancia, ya que en caso de incluirse solamente actividades de reforestación y forestación, las mismas podrían poseer un efecto adverso sobre las masas boscosas nativas, puesto que no se estarían valorando de una manera igualitaria a las masas forestales nativas, respecto a los servicios ambientales que prestan y todas las externalidades que las mismas poseen.

El artículo 12 del PK, que provee el marco para el Mecanismo de Desarrollo Limpio, indica que el objetivo del mismo es ayudar a los países no incluidos en el Anexo 1 a lograr un desarrollo sostenible y contribuir así al objetivo último de la Convención. En este contexto la conservación de bosques nativos, y los proyectos de regeneración, son una pieza importante para que los países como el Paraguay puedan simultáneamente lograr múltiples objetivos a través de la Convención, tal como la reducción de la deforestación y la implementación de técnicas de manejo sostenible de bosques, asistiendo a comunidades locales a conseguir equidad social, crecimiento económico y recuperando o manteniendo el equilibrio ambiental, obteniéndose al mismo tiempo transferencia de tecnología y conservando la biodiversidad.

El artículo 3.3 del PK menciona la reforestación, la forestación y la deforestación como actividades que pueden utilizarse en el cumplimiento de los compromisos de reducción de los países del Anexo B del PK. Numerosos países latinoamericanos se encuentran a favor de la inclusión de estas actividades en el MDL, puesto que esto podría favorecer a la disminución de la deforestación que afecta a estos países, y ayudaría a hacer realidad actividades basadas en las potencialidades naturales de la región, cumpliendo así con las premisas del Desarrollo Sostenible señalado en el artículo 12.2 del PK .



PAPER NO. 12: RUSSIAN FEDERATION

**COMMENTS ON CO-CHAIRMEN'S TEXT ON ELEMENTS RELATED TO  
ARTICLES 3.3 AND 3.4**

Russian Federation pays much attention to inclusion of activities related to land-use, land-use change and forestry in the first commitment period of the Kyoto Protocol. We understand that the issue stands among the most complicated issues of the Protocol, and we very much welcome good willingness of Parties to constructive dialog. The Co-Chairmen's text on the elements related to Articles 3.3 and 3.4 is a good illustration of that. Our comments to Co-Chairmen's text are based on fact that it is a very good output made by Co-Chairs and Secretariat. The text generalizes and puts together major views expressed by the Parties.

**Section A. "Definitions".**

**Paragraph 3 (p 2).**

Russian Federation would like to support this definition. We also propose to include in the text a supplementary statement that the definition should be identified once and remain unchanged for the whole commitment period.

**Paragraphs 5, 6, 8 (p. 3).**

The definitions of **afforestation, reforestation and deforestation** miss reference that these are direct human-induced activities. That is inconsistent with Kyoto Protocol. We propose to include the reference to direct human-induced activities in the definitions of **afforestation, reforestation and deforestation**.

**Paragraph 6 (p. 3).**

The statement in brackets ([not]) in definition of **reforestation** should be removed from the text.

**Paragraph 7 (p. 3).**

The text in brackets ([the last... years]) in the definition of "*historic*" should be removed from the main text.

**Paragraph 12 (p. 4).**

**Revegetation** is a new term that is not included in the Protocol. It apparently refers to activities within Article 3.4 of the Protocol. It is recommended that in paragraph 12 revegetation should be defined as additional human-induced activity within Article 3.4 of the Kyoto Protocol.

**Paragraph 14 (p. 4).**

The sentence 2 is in contradiction to the other text of the paragraph 14. Remote sensing and GIS systems used by the Parties enable access (and control) to almost all forested areas in each country. It is recommended that this sentence should be removed from the paragraph.

**Section B. "Eligibility".**

**General comment to paragraphs 19-25 (pp. 5-6).**

Russian Federation stands at position of inclusion additional human-induced activities in the first commitment period of the Kyoto Protocol. Therefore, no specific comments are provided

to paragraphs 19-21 of the Co-Chairmen's text. So far as in the sense of Kyoto Protocol the activities within Article 3.4 should be considered and included in the accounting frame of the first commitment period, it is recommended to change places of paragraphs 19-21 and 22-25. The paragraphs 22-25 should stand on in front of paragraphs 19-21.

**Paragraph 23 (p. 6)**

Russian Federation feels that paragraph 23 is inconsistent to the sense of Kyoto Protocol.

**Section C. "Accounting".**

**Paragraph 27 (p. 6).**

The paragraph is unclear and seems to be inconsistent to Articles 3.3 and 3.4 of the Kyoto Protocol. It is recommended that the paragraph is clarified.

**Paragraph 28 (p. 7).**

The accounting of net changes in carbon stocks and non-CO<sub>2</sub> greenhouse gas emissions should begin with onset of activity under Article 3 otherwise the Parties will have very small incentives to follow the commitments of the Protocol.

**Paragraph 29 (p. 7)**

Russian Federation feels that paragraph 29 is inconsistent with the sense of Kyoto Protocol.

**Paragraph 34 (p. 7-8)**

Russian Federation would follow Option 2 in paragraph 34, because it is consistent with Kyoto Protocol. But at the same time we propose that Parties should be given an opportunity to reach a common agreement on significance level that should be followed during subsequent accounting and reporting.

**Paragraphs 39-41 (p. 8)**

Russian Federation feels that paragraphs 39-41 are strongly prescriptive. That is inconsistent to the sense of UNFCCC and Kyoto Protocol. Parties should be given an opportunity to make their own decision on limiting debits and credits from Article 3.3 for all commitment periods.

**Paragraphs 42-46 (pp. 8-9)**

Russian Federation feels that paragraphs 42-46 are strongly prescriptive. That is inconsistent to the sense of UNFCCC and Kyoto Protocol. Parties should be given an opportunity to make their own decision on limiting credits as well as using discount rates (if they find it appropriate) from Article 3.4 for appropriate commitment periods.

**Section D. "Measuring and reporting".**

**Paragraphs 51-52 (p. 9).**

It is proposed that supplementary text should be added to paragraph 51 or paragraph 52 that refers to a possibility for each Party to use its country-specific (national) systems for data collecting and inventory for the purposes of measuring and reporting the carbon stock changes under Articles 3.3 and 3.4 of the Kyoto Protocol.

**Paragraph 53 (p. 10).**

Based on the proposal to add a supplementary text to **paragraph 3 (p. 2)**, we think that the text in paragraph 53 becomes repetition of the text in revised **paragraph 3 (p 2)**. Therefore, it is possible to remove paragraph 53 from the revised version of Co-Chairmen's text.

PAPER NO. 13: SAMOA AND TUVALU

**SUBMISSION ON THE CO-CHAIRS' TEXTS ON ELEMENTS RELATED TO  
ARTICLES 3.3 AND 3.4**

Samoa and Tuvalu reserve the right to make further submissions

**General Comment:**

Samoa and Tuvalu believe that considerations of textual proposals on Land Use Land Use Change and Forestry (LULUCF) is part of a package of considerations, containing three key elements:

- definitional and accounting issues associated with Article 3.3 and 3.4 of the Kyoto Protocol and their relationship to Annex I Assigned Amounts;
- definitions and accounting requirements associated with Article 3.3 and 3.4 and Joint Implementation (Art 6), and if, at some stage, uncertainty, leakage and permanence are addressed, the Clean Development Mechanism (Art 12)
- reporting and inventory requirements under Articles 5, 7 & 8

**Preambular Considerations:**

Recall that the UN Framework Convention on Climate Change stresses the need to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system;

Note that the IPCC Special Report on Land Use, Land Use Change and Forestry, and in particular the consideration of the Global Carbon Cycle, shows that the net contribution of greenhouse gases in the atmosphere by land use, land use change and forestry activities amounts to at least fifteen percent of the residual greenhouse gases in the atmosphere;

Recall that the IPCC Report on Land Use, Land Use Change and Forestry draws attention to the issue of uncertainty, leakage and non-permanence in the context of LULUCF activities;

Recall that the IPCC Report on Land Use, Land Use Change and Forestry notes that sustainable development issues are relevant in considering the implications of LULUCF activities. In that context activities and actions under LULUCF should be consistent with human rights agreements, and in particular ILO Convention 169;

Note that the IPCC Report on Land Use, Land Use Change and Forestry should be consistent with the principles of sustainable forest management; the Convention on Biological Diversity and the relevant decisions of the CBD COP;

**A. Definitions:**

**Forest**

Option 2b is in general the preferred option. We believe that forests should be defined by a universal set of definitions based on the biome approach. Those definitions should be used by all countries. IPCC should be invited to assist the COP/MOP to define that set of definitions. Governments should have the discretion to choose.

**Afforestation**

5. Afforestation is the conversion of non-forest to forest on land that has not forested for at least 50 years.

(Note: Paragraph 7 concerning the meaning of "historic" is unnecessary)

**Reforestation:**

6. Reforestation is the conversion of non-forest to forest on land that was forested within the last 50 years, but prior to 1990.

(Note: Delete the second sentence)

**Meaning of "historic"**

7. (Delete paragraph as covered by definition of ARD)

**Deforestation:**

8. Deforestation is the conversion of forest to non-forest, or the reduction of forest canopy cover by more than 20%, but does not include the conversion of forest to non-forest which is immediately followed by the establishment of the same type of forest that has the potential to achieve the same level of biomass at maturity on the same site.

**Is forest harvesting considered deforestation?**

9. (Delete paragraph as already covered by definitions of ARD.)

10. (Delete this paragraph as already covered by definitions of ARD)

**Size of the assessment unit**

11. The threshold unit area for determining ARD land should be 0.5ha.

(Note: This should be a universal requirement.)

**Revegetation, Forest Management, Cropland Management, Grazing Land Management.**

Paras 12-16: (Delete all these paragraphs. Samoa and Tuvalu believe that no additional activities (Art 3.4) should be included in the first commitment period.)

**B. Eligibility**

**Eligibility**

17. (Delete paragraph as it confuses concepts in relation to Annex I inventories and project based activities under JI)

18. After the words "objectives and principles of" add ", and any decisions taken under" and after "Agenda 21" add "ILO Convention 169 and other relevant agreements".

Inclusion of eligible activities under Article 3.4 in the second and subsequent commitment periods

19-21. (Delete all paragraphs as the issue is covered in paragraph 22.)

**Option 1: No additional activities** (delete rest of heading)

22. No additional activities shall be pursued under the provision of Article 3.4 during the first commitment period. (Delete rest of sentence).

23-25 (Delete these options)

### **C. Accounting**

#### **Accounting:**

26. (Delete paragraph as it is an awkward and appears to be legally inaccurate)

27. (Delete paragraph, it is not necessary as it refers to 3.4 activities.)

#### **Initiation of accounting during the commitment Period**

28. (Note: The current options should be left open as the implications of these options need to be considered further).

#### **Duration of accounting**

29. The wording "accounting for" is problematic and needs further clarification. We support the sentiment of the paragraph with regards to ongoing liability for emissions and removals over successive and contiguous commitment periods.

#### **Carbon Pools**

30. (Delete reference to "harvested wood products from deforestation activities" as this is not in parallel with the removal of the concept of the harvest-regeneration cycle. Reference to IPCC Guidelines and Article 5.2 need to be considered in the context of discussions in relation to 5, 7 & 8.

31. (Delete as it is unclear what is meant by "transparent and verifiable information.")

#### **Non-CO2 gases**

32. Note: The sentiment of this paragraph though there may be complications concerning the wording in relation to "accounted for" and decisions made by the COP rather than the COP/MOP.

#### **Separating out the natural uptake.**

Option 1 No separation (delete)

33-37 (Delete as these relate to 3.4 activities)

38. There is potential to develop further to embrace carbon and non-deliberate nitrogen fertilization in ARD activities.

#### **Limiting debits and credits from Article 3.3 for all commitment periods:**

39. Delete as this is covered under definition of deforestation.

40. Unnecessary as already covered, delete.

41. Delete as unclear.

#### **Limiting credits from Article 3.4 for the first commitment period**

Paragraphs: 42-46 Delete as refers to 3.4 activities

**Art 3.7**

47-50 No comment at this stage.

**D. Measuring and reporting**

51-53 Discussion on these issues should be held over until further consideration of the implications of the developments under 5, 7, 8.

**E Future Work:**

54 (a) keep as a generic reference to inventory guidelines and delete reference to harvest wood and biomass products.

(b) This paragraph needs to be split differentiate between further work on 3.3 and 3.4

(c) As per (b)

(d) add to the end of this sentence "in the second commitment period".

(new e) Add: "Guidance on consideration of issues related to the impact of LULUCF activities on local and indigenous communities, in consultation with relevant groups."

55. Needs further elaboration before comment can be made.

PAPER NO. 14: UNITED STATES OF AMERICA

**LULUCF CO-CHAIRMEN'S TEXT**

The United States greatly appreciates the Co-Chairmen's preparation of this text. We offer the comments below, but note that these comments are necessarily preliminary. Also, because these comments have been prepared before substantive discussions in the contact group, the United States may revise its views upon consideration of the group discussion.

**Preambulatory material:**

The United States welcomes a discussion of preambulatory material for the decision on the elaboration of Articles 3.3 and 3.4 in the LULUCF contact group. We believe it would be much more clear to express preambulatory elements in clear relation to the decision to which they apply. Otherwise, the relationship of decisions within and across articles could be contradictory and confusing. In particular, we believe that ideas relating primarily to project-based activities should be expressed in the context of the decision on mechanisms rather than the LULUCF decision on Articles 3.3 and 3.4.

LULUCF project-based activities under Articles 6 and 12 are governed by decisions agreed to by the Parties under those Articles, and are not governed by Article 3.3 or 3.4.

Parties should ensure that the preambulatory material fits well with the eventual decision at COP-6. Thus, such material should remain in brackets until the full text is agreed.

The United States makes the following observations about the Principles put forward by the G-77 and China.

1. A preambulatory element such as this reference to Article 3 should include the entire text, verbatim, from Article 3.1. An effort to paraphrase or characterize the intent of Article 3.1 could be confusing and could conflict with the intent of Parties as expressed by the Protocol. We note that the reference to 5% below 1990 levels is an aim, not a binding feature of the Protocol, and do not believe that decisions under Articles 3.3 and 3.4 should treat it otherwise.
2. The U.S. believes its proposal limits indirect human-induced factors effectively by including only those land systems on which anthropogenic effects dominate. We are unaware of reliable scientific methods that can factor out indirect human-induced effects on the managed lands that would be included under Article 3.4. Parties may consider asking the IPCC to provide a report on this subject prior to consideration of approaches towards targets and accounting in the second commitment period.

We strongly believe that direct human-induced nitrogen fertilization should not be factored out.

3. This element would likely fit best in decision text describing rules for allocating the adaptation fund in the decision under Article 12.

4. We do not understand the connection of this principle in relation to the compliance provisions governing the subtraction of tons from future commitment periods.
4. We are unsure as to the need for this element in the preamble to this decision.
5. Permanence will be ensured by the accounting system under Articles 3.3 and 3.4, provided that commitment periods are contiguous and land in the system stays in the system.

Rules within Article 12 decisions should govern the responsibility for carbon released from CDM projects prematurely. This is not a simple matter, and we refer Parties to our submission on CDM accounting for our views.

6. The Article 3.3 and 3.4 accounting will involve a change in stocks approach. In this context, the U.S. agrees that counting standing reservoirs as contributions to assigned amount is not appropriate. Accounting for LULUCF in Articles 6 and 12 belongs in decisions under those articles.

### **Comments on Co-Chairmen's Text**

#### **Section A: Definitions**

Paras 1 – 8: The section on definitions should be in brackets until the entire text is agreed.

Paras 1-4: In an approach similar to paragraph 3, the United States supports a definition of forest as drafted by the Umbrella Group:

*(1) Forest is land with tree crown cover (or equivalent stocking) of a minimum level of between 10% and 30% and a minimum area of between 0.3 and 1.0 ha. The trees should be able to reach a minimum height of between 2m and 5m at maturity in situ. Forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground; or of open forest formations with a continuous vegetation cover. Young natural stands and all plantations established for forestry purposes which have yet to reach the minimum tree crown cover or the minimum tree height are included under forest, as are areas which are temporarily unstocked as a result of human intervention or natural causes.*

*To reflect its national circumstances, each Party in Annex I shall, for purposes of applying the definition of "forest" (as provided in paragraph 1 above) to its own lands, elect a single minimum tree crown cover, a single minimum land area, and single minimum tree height and shall specify this election in its pre-commitment period report submitted under Article 7.4. Upon election, each Annex B Party's forest definition will be fixed through the first commitment period.*

Para 5: This definition is acceptable.

Para 6: In the context of an Article 3.4 decision including forest management, the second sentence is unnecessary and could be confusing. For example, "following" is an ambiguous



term, and this language may exclude regeneration many years after harvesting, which should clearly qualify as reforestation.

Para 7: The U.S. does not see the function of this para. The concept is better dealt with in para 39 (see more detailed comments there).

Para 8: We prefer the text:

*“Deforestation” is the conversion of forest to land that is not forest.*

- The identification of long-term land-use change is an important issue which we believe can be fully addressed by including the broad activity of forest management under Article 3.4. Under this approach, reductions of carbon stock on managed forests would be accounted for during the commitment period in which they occur, whether or not the stock losses would qualify as “deforestation” under Article 3.3. If forest management is not included by a Party, it should ensure that it detects and debits deforestation in a timely and reasonable way.
- The U.S. strongly opposes the phrase “of the same forest type on the same site.” This would not only be impossible to implement, but could also penalize Parties that restore native systems.

Para 9: This para is confusing and misleading. Deforestation could certainly be preceded by commercial harvesting. We believe the land use conversion language within the definition of deforestation is perfectly clear and needs no elaboration. This para could result in long discussions of defining “ongoing.”

Para 10: This paragraph appears to address the problem identified in our comments on para 8 above. The U.S. recognizes this important issue, but believes it is impractical to document every harvesting event and explain whether it is a deforestation event. A better approach for Parties that do not broadly include forest management would be for them to report before the commitment period on how they will detect and debit deforestation in a timely and reasonable manner.

Para 11: We appreciate the concept that Parties must detect deforestation at a reasonably small scale. The U.S. collects data statistically, and our detectable area of deforestation is 0.3 ha for each sampled area – the same size as the minimum area for defining a forest. We propose the following text:

*Parties should ensure that they account for deforested areas that are larger than or equal to their elected minimum forest size using a statistically sound approach.*

Para 12 – 13: We appreciate the proposal put forward by Parties for the inclusion of revegetation under Article 3.4. This approach would address some definitional issues surrounding “forest,” and could encourage restoration of degraded habitat. We believe this approach could be consistent with the U.S. proposals for a broad and comprehensive approach to Article 3.4 activities, if it were recast as “vegetation management” to better account for both emissions and removals across a related land management system.

Para 14: We will propose a revised definition forest management after further consideration.

Para 15: We propose the following revised definition:

*Cropland management is the dedication of land to support production of crops.*

Para 16: We propose the following revised definition:

*Grazing land management is the dedication of land to support production of grazing animals.*

## **B. Eligibility**

Para 17: A reference to “direct human-induced” should go here.

Para 18: The U.S. recognizes the important issues imbedded in this text but prefers the text below. We believe an approach that directly references the areas of concern is preferable to a cross-reference to those concerns through other documents. Not all Parties to the Kyoto Protocol have ratified those other Conventions, and it would be very difficult to define and enforce compliance with the “shall be consistent” approach. Our proposed language is:

*Parties should take into account, as appropriate, ancillary environmental effects in developing their domestic approaches related to implementation of Article 3.3 and Article 3.4, including effects on biodiversity, soil, air and water quality, the capacity of ecosystems to adapt to climate change, risks of degradation, long-term vulnerability to disturbance by fire, pests and invasive species, and the protection of primary and maturing secondary native forests.*

Paras 19-21: We support the approach in para 20 that would include the bracketed activities of forest management, cropland management, and grazing land management. Additional categories of land management systems could be necessary to reflect conditions in other countries, and we look forward to discussing how these activities can best reflect conditions in all Parties that may account for LULUCF activities.

The phrase in para 20 that reads “associated changes in greenhouse gas emissions by sources and removals by sinks” must be changed to “associated changes in carbon stocks.” Despite the language of Article 3.4, in no case should accounting under Articles 3 of the Protocol reflect *changes* in emissions and sinks. Rather, the Protocol should account for levels of GHG emissions and changes in carbon stocks (or, equivalently, removals by sinks). U.S. views on the treatment of emissions of non-CO<sub>2</sub> gases related to LULUCF are discussed below.

The process approach of Para 21 would not be an acceptable outcome of COP 6 for the United States.

Paras 22-25: The U.S. supports the general approach in para 25. However, we suggest revising it to read as follows (note our discussion of non-CO<sub>2</sub> gases below):

*Parties shall report in accordance with Article 7 of the Kyoto Protocol, before the start of the first commitment period, their election of the additional activities for which they intend to account in the first commitment period. Each Party will thus commit to add to, or subtract from, its assigned amount for the first commitment period the changes in carbon stock associated with those additional activities. Elected activities shall be limited to those, or a subset of those listed in paragraph 20 above. Upon election, a Party's decision is fixed for the first commitment period.*

We strongly believe a decision on which additional activities can be included by Parties for the first and subsequent commitments periods should be made at COP-6. The United States is prepared to consider a phase-in accounting approach for the first commitment period, under which the positive net LULUCF removals of Annex I parties would be reduced for purposes of first commitment period accounting only.

### **C. Accounting**

Para 26: Remove the phrase “and net changes in non-CO2 emissions”. See U.S. views regarding non-CO2 greenhouse gases below. In any case, GHG emissions must always be accounted as *levels* of emissions, not *changes* in emissions. Change the phrase “resulting from” to “associated with”.

Para 27. We are open to discussing how lands that may fall under both Articles 3.3 or Article 3.4 should be allocated across those articles, particularly in light of potential phase-in options for activities under Article 3.4 for the first commitment period.

Para 28. Rephrase:

*Estimations of net changes in carbon stocks and levels of non-CO2 greenhouse gas emissions associated with land-use, land-use change and forestry activities under Articles 3.3 and 3.4 shall begin with the onset of the activity or the beginning of the commitment period, whichever is later.*

Para 29: change “occurring from” to “associated with”

Para 30: ...dead wood, soil [~~organic carbon~~], and harvested [~~wood~~] products [~~from deforestation activities~~], in accordance....

Para 31. Delete the phrase [~~but 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 in question is not a source~~]. We encourage Parties to develop their accounting approach to include all relevant pools. We note that some pools may be sources for some activities and not others, or sources in some areas and not others. Some pools that are not sources can become sources with a minimal change in management practices.

Para 32. Accounting for non-CO<sub>2</sub> GHG emissions and removals

If activities under Articles 3.3 and 3.4 affect emissions from GHG sources (both CO<sub>2</sub> and non-CO<sub>2</sub>) included in Annex A, an issue arises as to whether those emissions should be

counted as additions to Parties' assigned amounts pursuant to Articles 3.3 and 3.4, or should be reflected in Parties' emissions inventories.

The United States believes that the major sources of non-CO<sub>2</sub> emissions related to LULUCF activities (particularly N<sub>2</sub>O emissions from soils) are already included in the inventories provided pursuant to the UNFCCC and would be covered by Annex A sources under the Kyoto Protocol. It is possible that certain applications of nitrogen to soils might not be included currently by some Parties in their inventories (e.g., applications of nitrogen to industrial timberland or lawns), although we note that these emissions are covered by the U.S. inventory under "agricultural soil management." To address the issue of double-counting, "agricultural soils" under Annex A of the Kyoto Protocol should be interpreted broadly to include emissions from all nitrogen applied to soils, rather than including only nitrogen applied to cropland soils.

The United States also recognizes that several potential non-CO<sub>2</sub> emissions and removals from the LULUCF sector are not currently included in Parties' emissions inventories. These include, for example, emissions of CH<sub>4</sub> and N<sub>2</sub>O from forest burning and other forest management practices; CH<sub>4</sub> emissions from wetlands; and emissions and removals related to microbial action in soils. In these cases, limited data exist to quantify these emissions and removals reliably at the national scale. The IPCC Special Report on LULUCF provided little guidance for the treatment of non-CO<sub>2</sub> gases, and there are also no methodologies for such estimates in the 1996 IPCC Guidelines. For these reasons, we propose that such emissions and removals not be included in emissions inventories, at least in the first commitment period.

The U.S. believes Parties should consider asking the IPCC to revisit these issues and the state of science when it next revises the emissions inventory methodologies in preparation for future commitment periods.

Para 33-37: The U.S. addresses the issue of the separation of non-human induced uptake of carbon on lands by excluding lands from our proposed activity list where fluxes in carbon are primarily driven by natural processes: parks, wilderness, recreation areas, wildlife preserves or other forests that are inaccessible, of low productivity, or otherwise not available or appropriate for wood production. Thus, for the remaining land included under Article 3.4, Option 1 is appropriate.

Paras 35 and 36 appear unduly complicated. We are not aware of any "accepted statistical tests and modeling techniques" that can "exclude carbon stock changes in all ecosystems cause by climate change, elevated carbon dioxide concentration and the effects of fertilization due to nitrogen fallout."

Para: 38. Para 38 is misplaced. It does not address the issue of natural uptake. We are unsure as to the precise problem this para is intended to address.

Para 39-41: The U.S. recognizes the important issue of land management incentives. If substantial negative incentives could derive from the Kyoto accounting system, then we must be careful in our consideration of these effects and how best to address them.

We are a bit unsure as to the problem that para 39 addresses, but we think it may not work as intended. If land enters the system through deforestation since 1990, then regeneration during

the commitment period would count, *whether or not* that regeneration qualifies as reforestation under para 39. The land is already in the system through the deforestation. We are not convinced that incentives to deforest are strong enough to affect actions substantially between now and 2008, although we remain open to discussion on this issue.

Para 40: appears to address fairness to harvesters, rather than land management incentives. We are not compelled by this reasoning, and do not support this sub-rule. We encourage Parties to address distributional concerns within their domestic implementations.

Para 41: addresses a concern that we believe is best dealt with by including forest management under Article 3.4.

Para: 42: We strongly believe a ceiling is an inappropriate method to limit credits from Article 3.4 activities. Ceilings provide no incentives for encouraging additional methods to enhance carbon reservoirs.

Para 43-45: The United States is prepared to consider a phase-in accounting approach for the first commitment period, under which the positive net LULUCF removals of Annex I parties would be reduced for purposes of first commitment period accounting only. Paras 43 through 45 are consistent with the broad conceptual approaches we have offered. Obviously, the numbers and exact structures for the phase-in will have to be negotiated.

Para 46. We believe that this paragraph is not an appropriate method for addressing measurement uncertainty. Other sources of greenhouse gases included in Annex A have measurement uncertainties greater than the activities proposed by the U.S. under Article 3.4. We also believe the issue of measurement methodologies should be addressed by the IPCC in the context of Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories.

Para 47: Add [land use] to “land use change and forestry” in the first sentence

Para 48. Add [land use] to land use change and forestry...

#### **D. Measuring and reporting**

Para 52 to 53: The U.S. will consider this text in the full context of its position on Articles 5, 7, And 8. Paragraph 53 should include the requirement that elections of minimum forest definition thresholds must be fixed through the first commitment period.

Para 54: The U.S. will consider this text in the full context of its position on Good Practice. Again, we believe that non-CO2 gases should be included in inventories rather than LULUCF accounts.

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