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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE
Eleventh session
Bonn, 25 October - 5 November 1999
Item 9 (a) of the provisional agenda

METHODOLOGICAL ISSUES

LAND-USE, LAND-USE CHANGE AND FORESTRY

Review of and response to the questions posed in tables 1 and 2 of document FCCC/SBSTA/1999/5 and additional policy and procedural questions

Comments related to the need for country-specific data and information and its relationship to a decision-making framework in the context of the requirements of the Kyoto Protocol

Submissions from Parties

Note by the secretariat

1. At its tenth session, the Subsidiary Body for Scientific and Technological Advice (SBSTA) invited Parties to review, and where possible respond to, the questions posed in tables 1 and 2 of document FCCC/SBSTA/1999/5, and to identify any additional policy or procedural questions. The SBSTA also decided to begin the consideration, at its eleventh session, of the need for country-specific data and information and its relationship to a decision-making framework in the context of the requirements of the Kyoto Protocol. It requested Parties to provide submissions on these subjects, where possible electronically, by 16 August 1999, for compilation into a miscellaneous document for consideration by the SBSTA at its eleventh session (see FCCC/SBSTA/1999/6, para. 41 (a) and (f)).

2. The secretariat has received seven 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.

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

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PAPER NO. 1: AUSTRALIA

DECISION MAKING FRAMEWORK FOR LAND USE, LAND USE CHANGE AND FORESTRY ISSUES

Australia notes that SBSTA 11 will begin consideration of elements related to decision making on land use, land use change and forestry matters under the Kyoto Protocol. In its conclusions from its 10th session, SBSTA agreed that this should include consideration of the relationship between a decision making framework and the provision of country specific data and other relevant information.

Australia remains of the view that agreement on a decision making framework is a necessary first step before consideration can be given to data requirements (including country specific data related to Articles 3.3 and 3.4), as the framework will govern the timing, nature and scope of data and other information needed to operationalise Articles 3.3 and 3.4.

In this submission, we propose a model for a decision making framework which consists of three interrelated but distinct strands of decision making on Article 3.3, Article 3.4 and the measurement and reporting of sinks. Australia considers that decision making on the three strands needs to progress in a parallel and iterative fashion with a view to ensuring that key decisions on each are taken at COP6.

To assist Parties in understanding how this can be achieved, Australia has outlined the three strands of decision making activity in the form of a flow chart (see below). The flow chart demonstrates necessary timelines for decision making and the submission of key inputs such as country specific data and related information. We recognise that some elements of the decision making process, particularly relating to measurement and reporting, may continue beyond COP6. However, the flow chart shows how the time before COP6 should be allocated so as to enable Parties to agree upon the decision making framework, consider the necessary inputs such as the IPCC Special Report and relevant data, and take decisions necessary to operationalise Articles 3.3 and 3.4.

Consistent with Decision 9/CP.4 it is essential that key decisions on implementation of Article 3.3 and 3.4 are indeed made at COP6. For Australia and a number of other countries, sound and timely decisions on operationalising Articles 3.3 and 3.4 will facilitate national decisions on ratification of the Kyoto Protocol.

In this context, Australia considers the following decisions on Article 3.3, 3.4 and measurement and reporting of sinks are necessary by COP6:

Article 3.3

To operationalise Article 3.3, Parties will need to take decisions on definitions, including the meaning of ‘direct human induced’, as well as issues related to measurement and reporting of afforestation, reforestation and deforestation (discussed in the section below on measurement and reporting).

As outlined in the flow chart, the first step is for SBSTA12 to call for submissions from Parties on definitions and related information, including capacity to measure afforestation, reforestation and deforestation.

Taking into account this information, together with any previous submissions on this topic, relevant secretariat documents and the IPCC Special Report on Land Use, Land Use Change and Forestry, Parties proceed to take decisions on definitions under and provisions needed to fully operationalise Article 3.3 of the Kyoto Protocol at COP6.

Article 3.4

In order to operationalise Article 3.4, Parties will need to take decisions on definitions, including the meaning of 'human induced', develop guiding principles and criteria for identifying and selecting eligible additional activities and determine implementation provisions. Recognising that decisions on the full suite of potential sinks activities may not be finalised at COP6, Parties will also need to decide on a process for further decision making under Article 3.4.

Australia proposes that initial consideration of guiding principles and criteria for additional activities under Article 3.4 of the Kyoto Protocol occurs at SBSTA 11/COP5, based on previous submissions, with decisions taken on principles and criteria at SBSTA12.

Having regard to the guiding principles and criteria agreed at SBSTA12, Parties should then submit proposals on additional activities they recommend be adopted under Article 3.4 for the first commitment period. The proposal should also outline Parties' capacities to measure and report the change in carbon stock and provide an estimate of the carbon sequestration or emission reduction the activity may deliver for the first commitment period.

Decisions would then be taken at COP6 on eligible sinks activities under Article 3.4. In addition a process for continuing decision making on further sinks activities would be determined.

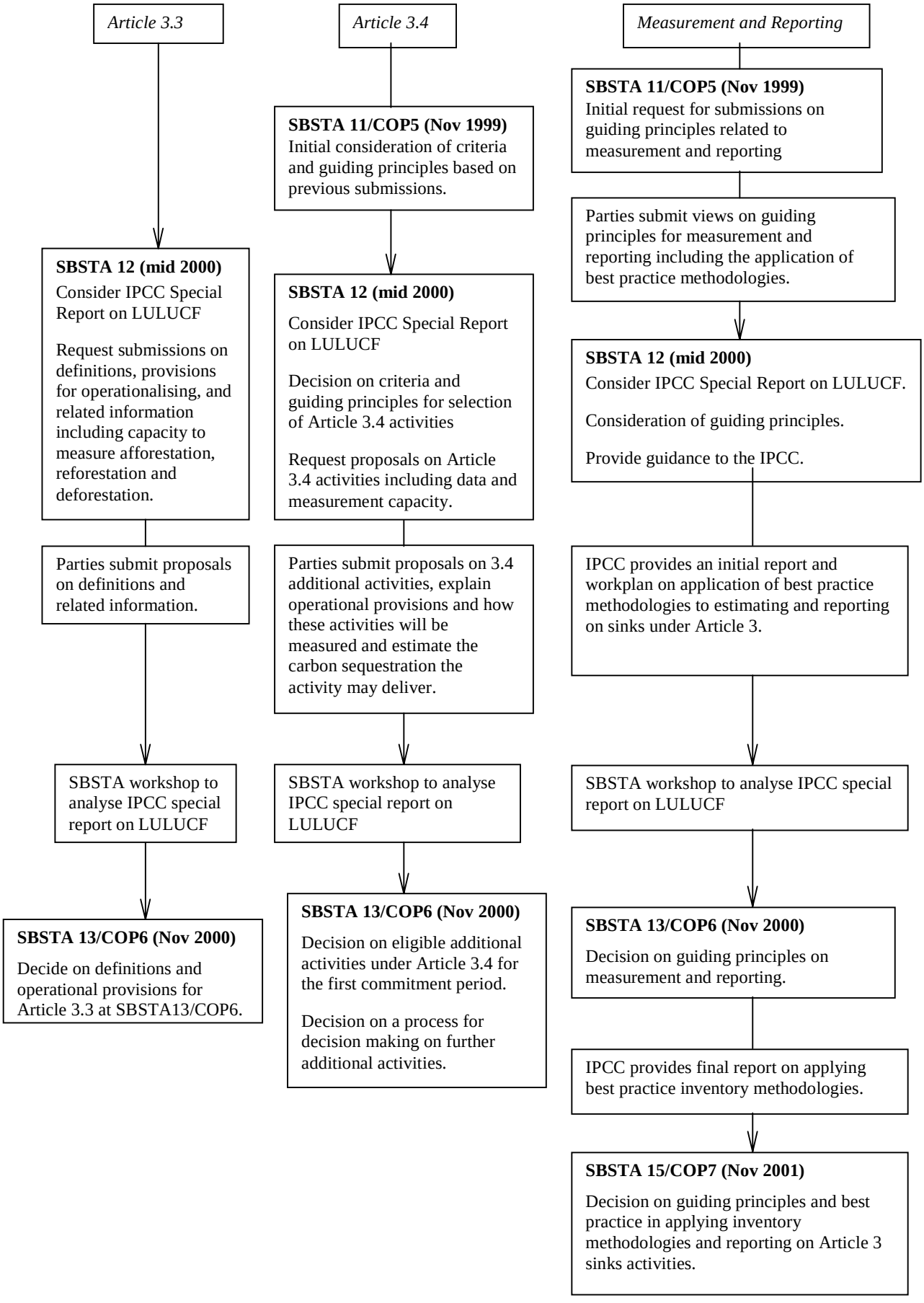
Measurement and Reporting

The elaboration of methodologies to measure and report biospheric emissions and sinks for all relevant carbon pools is a complex task that requires a substantial lead time to complete. For this reason, it is important that principles and approaches for operationalising the 1996 IPCC Guidelines with respect to the Article 3.3 and 3.4 sinks provisions be agreed on as early as practicable. In doing so, Parties will need to consider how to measure changes in carbon stock for various sink activities and determine approaches for reporting of sinks activities.

The first step in this process is for SBSTA11 to call for submissions from Parties on guiding principles related to measurement and reporting of sink activities. Parties can then begin to consider guiding principles for the measurement of land use, land use change and forestry activities, with a view to providing further direction to the IPCC in relation to its methodological work at SBSTA12.

A key element of this direction should be to invite the IPCC to consider how its work on best practice can be extended to encompass land use, land use change and forestry. Australia notes that Article 5 of the Protocol requires that the IPCC 1996 Revised Guidelines govern reporting for the first commitment period. Therefore the development and application of best practice to land use, land use change and forestry will enable Parties to measure and report on sinks activities within the scope of the existing 1996 Guidelines.

Parties should then invite the IPCC to provide a progress report by SBSTA13 on its work on best practice with respect to land use, land use change and forestry inventory methodologies. This will assist Parties in preparing to take decisions on guiding principles, best practice in applying inventory methodologies for measurement of sinks and guidelines for reporting for sinks under Article 3 at COP7.


Article 3.3
SBSTA 12 (mid 2000)
Consider IPCC Special Report on LULUCF
Request submissions on definitions, provisions for operationalising, and related information including capacity to measure afforestation, reforestation and deforestation.
Parties submit proposals on definitions and related information.
SBSTA workshop to analyse IPCC special report on LULUCF
SBSTA 13/COP6 (Nov 2000)
Decide on definitions and operational provisions for Article 3.3 at SBSTA13/COP6.
Article 3.4
SBSTA 11/COP5 (Nov 1999)
Initial consideration of criteria and guiding principles based on previous submissions.
SBSTA 12 (mid 2000)
Consider IPCC Special Report on LULUCF
Decision on criteria and guiding principles for selection of Article 3.4 activities
Request proposals on Article 3.4 activities including data and measurement capacity.
Parties submit proposals on 3.4 additional activities, explain operational provisions and how these activities will be measured and estimate the carbon sequestration the activity may deliver.
SBSTA workshop to analyse IPCC special report on LULUCF
SBSTA 13/COP6 (Nov 2000)
Decision on eligible additional activities under Article 3.4 for the first commitment period.
Decision on a process for decision making on further additional activities.
Measurement and Reporting
SBSTA 11/COP5 (Nov 1999)
Initial request for submissions on guiding principles related to measurement and reporting
Parties submit views on guiding principles for measurement and reporting including the application of best practice methodologies.
SBSTA 12 (mid 2000)
Consider IPCC Special Report on LULUCF.
Consideration of guiding principles.
Provide guidance to the IPCC.
IPCC provides an initial report and workplan on application of best practice methodologies to estimating and reporting on sinks under Article 3.
SBSTA workshop to analyse IPCC special report on LULUCF
SBSTA 13/COP6 (Nov 2000)
Decision on guiding principles on measurement and reporting.
IPCC provides final report on applying best practice inventory methodologies.
SBSTA 15/COP7 (Nov 2001)
Decision on guiding principles and best practice in applying inventory methodologies and reporting on Article 3 sinks activities.

PAPER NO. 2: CHILE

RESPUESTAS DEL GOBIERNO DE CHILE AL CUESTIONARIO SOBRE USO DE LA TIERRA, CAMBIO DE USO DE LA TIERRA Y SILVICULTURA (DOCUMENTO: FCCC/SBSTA/1999/5 Y ANEXOS)

TABLA 1. TEMAS DE POLITICA Y PROCEDIMIENTOS PARA SER CONSIDERADOS ANTES DE LA COP 6.

A. CLARIFICACION DE DEFINICIONES

1) ¿Cómo debería determinarse el límite entre los fenómenos naturales y humanos? ¿Y los procesos naturales que ocurren como resultado de decisiones de manejo, deberían tomarse en cuenta o no?. (la decisión de intervenir o retirarse del manejo puede conducir a cambios en la masa forestal)

Para determinar el límite entre los fenómenos naturales y humanos, las Partes deben acotar su análisis a las actividades humanas directamente relacionadas con el cambio de uso de la tierra y silvicultura, limitadas a la forestación, deforestación y reforestación desde 1990, tal como es señalado en el artículo 3.3 del protocolo de Kioto. En este sentido, la distinción entre los fenómenos naturales y humanos sólo debería relacionarse con la acción de *deforestación*, que puede originarse por causas naturales (entre otras: incendios, derrumbes, volcanismo y plagas que pueden provocar dicha deforestación), y antrópicas (ejemplos: incendios, prácticas de manejo forestal y de cambio de uso del suelo no sustentables, etc.). En cambio, tanto la *forestación* como la *reforestación* son actividades humanas directas, aun si se considera el caso de la regeneración natural producto de acciones antrópicas previas.

En la actualidad, la mayoría de los países tienen legislación relacionada con:

Evitar la destrucción de bosque nativo
Evitar los incendios de origen antrópico
Combatir los incendios
Evitar crecimiento de las ciudades en detrimento de tierras silvoagropecuarias
Promover y fomentar la forestación

En estas condiciones, se puede asumir que, desde 1990 en adelante, los fenómenos naturales que provoquen deforestación o destrucción de suelos agrícolas son:

- Volcanismo
- Derrumbes
- Inundaciones
- Incendios

2) ¿Cómo debería determinarse el límite entre lo directo y lo indirecto?

Una primera aproximación de las Partes para determinar el límite entre lo directo y lo indirecto podría ser la siguiente: este límite podría definirse luego de una clara identificación de las políticas, acciones o programas que cada Parte ha desarrollado, y que tienen una incidencia *directa* o *indirecta* en las variaciones netas de las emisiones de GEIs por las fuentes y su absorción por sumideros, debidas a las actividades humanas relacionadas con la forestación, reforestación y deforestación (ARD). Por ejemplo, si una Parte ha establecido políticas, programas o acciones de *forestación* y *reforestación*, como producto de una estrategia nacional específica para mitigar o revertir los efectos del cambio climático — que se traducen en proyectos orientados a reducir emisiones o capturarlas— esta sería una acción *directa* que incidiría positivamente sobre la capacidad de sumidero de dicha Parte (esta medida, indirectamente, podría revertir procesos de erosión y desertificación). Por el contrario, si esa Parte debe modificar los planos reguladores de alguna comuna o ciudad, a fin de expandir los límites urbanos, podría *indirectamente* afectar su capacidad de sumidero, al eliminar masa boscosa para permitir dicha expansión.

Básicamente, lo que se plantea es que si una Parte hace mención específica en una ley, decreto, programa, plan, etc., de acciones que está realizando para enfrentar el cambio climático, estas se traducirán en efectos directos de disminución/estabilización de emisiones. Por el contrario, políticas, programas, estrategias, e incluso proyectos, que se realizan por motivos ajenos al cambio climático, pero que tienen incidencia en la absorción o emisión de gases invernadero, estas se considerarán como medidas indirectas que deben ser evaluadas detalladamente.

Por otro lado, para efectos de la metodología de los inventarios de GEI, las actividades indirectas son aquellas provocadas por políticas nacionales o locales que determinan las líneas de base de las emisiones. Es el caso de los incentivos a la forestación y lo que se foresta normalmente por su causa, sin considerar medidas de mitigación de GEI. En todo caso, de acuerdo al art. 3.3, se considerarán solo actividades directamente relacionas con:

- el cambio de uso de la tierra
- la silvicultura, limitada a la forestación, reforestación y deforestación

En el caso de las actividades directamente relacionadas con la protección o preservación del bosque nativo, estas serían consideradas como cambio de uso evitado o reforestación.

3) ¿Cuáles políticas y programas, si hay, que resulten en actividad humana directamente relacionada deberían incluirse en los artículos 3.3 y 3.4?

En general, muchas de estas políticas existen en la mayoría de los países y se relacionan con

- Evitar la destrucción de bosque nativo por sobre aprovechamiento y habilitación
- Evitar los incendios de origen antrópico mediante prevención
- Combatir los incendios
- Evitar crecimiento de las ciudades en detrimento de tierras silvoagropecuarias
- Promover y fomentar la forestación
- Recuperar suelos degradados y erosionados
- Evitar el ingreso de plagas y enfermedades y promover su control
- Evitar y combatir las desertificación

Se podría establecer una norma general en el P.K. sobre la necesidad de que estas políticas sean adoptadas por todas las Partes.

Los programas podrían considerarse como conjuntos de proyectos elegibles para los mecanismos de Kioto, siempre que se enmarquen en las políticas antes mencionadas.

4) ¿Cuál es la relación entre las actividades adicionales del artículo 3.4 y la segunda oración del artículo 3.7?

El art. 3.4 establece, entre otros, que la Reunión de las Partes del Protocolo determinará las modalidades, normas, y directrices acerca de la forma de sumar o restar a las cantidades atribuidas a las Partes Anexo 1, las variaciones de las emisiones por las fuentes y la absorción por los sumideros de los GEIs generados por actividades humanas *adicionales* en las categorías de suelos agrícolas, cambio de uso de la tierra y silvicultura (es decir, adicionales a las señaladas en el art. 3.3).

La 2° oración del art. 3.7 establece que las Partes Anexo I para las cuales el cambio de uso de la tierra y la silvicultura constituían una fuente neta de emisiones en 1990, al momento de calcular las cantidades que se le han de atribuir, podrán restar a las emisiones agregadas por las fuentes, la absorción por los sumideros en 1990 debida al cambio de uso de la tierra. Para que en su cálculo puedan efectivamente considerar la absorción por los sumideros en 1990 debida al cambio de uso de la tierra, esas Partes deberán haber logrado dicha absorción a través de actividades adicionales a las señaladas en el artículo 3.3. (que corresponden a las actividades adicionales señaladas en el art. 3.4.).

B. ELIGIBILIDAD DE ACTIVIDADES ADICIONALES

1) ¿Deberían las actividades consideradas estar conforme con las cláusulas relevantes de la Convención (por ej.: artículos 3.3, 3.4 y 4.1.d) y aquellos del Protocolo de Kioto (por ej.: artículos 2.1 (a) (ii) y 2.1 (a) (iii))?

Todas las cláusulas mencionadas tienen relación con el derecho de las Partes al desarrollo sostenible y al crecimiento económico, además de la protección y mejora de los sumideros y depósitos de GEI en bosques, océanos, tierra agrícola y otros, debiendo respetar los acuerdos internacionales sobre medio ambiente, gestión forestal, forestación y reforestación.

Así, las actividades humanas adicionales directas elegibles deberían cumplir con estos planteamientos de reducir las emisiones y aumentar los sumideros, incluyendo al desarrollo sostenible, el crecimiento económico y el respeto de las normas internacionales.

2) ¿Deberían las actividades de los artículos 3.3 y 3.4 estar en conformidad con otras convenciones, tales como la Convención de Biodiversidad Biológica, la Convención contra la Desertificación y otros acuerdos internacionales relacionados con los bosques?
Si es así, ¿Cómo deberían aplicarse estos acuerdos?

Sí. Lo importante es compatibilizar las políticas, procedimientos y definiciones considerados en las otras convenciones con la Convención Marco de Cambio Climático.

3) ¿Deberían los niveles de incertidumbre ser un criterio para la inclusión de actividades adicionales bajo el artículo 3.4? Si es así, ¿Deberían esos niveles de incertidumbre ser diferentes de aquellos asociados al artículo 3.3 u otras fuentes?

No. Los niveles de incertidumbre no deberán utilizarse para seleccionar o descartar a priori las actividades adicionales que se incluirán bajo el artículo 3.4. Sin embargo, la cuantificación (o ponderación) de los niveles de incertidumbre asociados a las diferentes actividades adicionales que se puedan identificar, será fundamental para diferenciar la efectividad de cada una de dichas actividades en la mitigación de GEI.

Los niveles de incertidumbre deberán asociarse al estado del arte de la tecnología disponible para medición y verificación, especialmente en lo que se refiere a la exactitud de las mediciones de superficie, volúmenes, contenido de CO2 equivalente de la biomasa, duración de los depósitos. En todo caso, la reducción de los grados de incertidumbre debe estar directamente relacionada con la eficiencia en la relación beneficio-costo.

Donde el costo de cálculo, verificación, transparencia u otro sea demasiado elevado, mas vale no considerar determinada actividad, hasta que nuevas tecnologías permitan su análisis con beneficios para las Partes.

Los niveles de incertidumbre serán diferentes a los asociados al art. 3.3., de acuerdo a la disponibilidad de información científica y metodológica asociada a la captación o emisión de GEI de las diferentes actividades. Se espera que dichos niveles de incertidumbre disminuyan según la mejor información disponible proporcionada por el IPCC, y que periódicamente sean revisados por la COP.

4) ¿Qué información específica sobre incertidumbres y verificabilidad se requiere para determinar si una actividad adicional debería incluirse bajo el artículo 3.4 ?

En el caso de los inventarios de GEI, los procedimientos establecidos por el IPCC para elaborarlos parecen ser los mas aceptables, aunque deberían irse adecuando a la mayor disponibilidad de información técnica y científica en el futuro, por ejemplo, las guías y procedimientos podrían ajustarse cada 4 ó 5 años.

En cuanto a los proyectos LUCF, las principales incertidumbres se relacionan con la determinación de las líneas de base y las mediciones efectivas de los depósitos y flujos de GEI, especialmente el CO2 equivalente, en función del conocimiento actual de las variables biofísicas y bioquímicas, además de los costos de dichas mediciones en cada proyecto.

La incertidumbres podría ser identificada y cuantificada mediante la aplicación de coeficientes de seguridad que serían los mismos con los que se pueden verificar expost. Podrían emplearse tasas de descuento físicas sobre las cantidades estimadas de captura de emisiones y tasas de descuento en el tiempo, en el caso de alta incertidumbre sobre permanencia de los depósitos.

Se discute si las líneas de base deberían ser estáticas o dinámicas, sin tener todavía certeza científica sobre las mediciones a nivel de terreno. En este sentido, las líneas de base fijas serían mas adecuadas, mientras no haya mayor conocimiento científico, al menos para el primer período de compromiso.

Parece conveniente definir datos concretos, medibles o por defecto, que sean aceptados por la COP. Es mejor una decisión, aunque contenga niveles medios de error, que debatirse en una interminable serie de incertidumbres. El avance del conocimiento científico orientado a la determinación de las cantidades y duración de los depósitos o reemplazo de GEI por biomasa, debería permitir reajustar los coeficientes de descuento antes señalados.

5) ¿Qué otros criterios podrían aplicarse para orientar un proceso de decisión en relación con los artículos 3.3 y 3.4?

Perdurabilidad de la fijación de carbono en el tiempo
Estandarización del método de cálculo de las incertidumbres
Existencia de factores de ponderación para la mitigación de GEI por cada actividad

Los criterios podrían determinar listados de tipos de proyectos y de actividades que serían elegibles, en función de la eficiencia en la creación de sumideros o mitigación de emisiones conforme al Protocolo de Kioto y los mecanismos flexibles.

C. NORMAS PARA EL USO DE LAS ACTIVIDADES APROBADAS

1) ¿Con qué fin necesitamos información de los niveles de existencia en 1990 en el contexto de los artículos 3.3 y 3.4? ¿Qué existencias o depósitos de carbono deberían incluirse en esa información?

El año 1990 es el punto de referencia contra el cual se evaluará el cumplimiento de las metas de reducción y limitación de emisiones de los países anexo 1, en el primer período de compromiso. Por lo tanto, el conocer los niveles de existencia en ese año, permitirá la elaboración de las líneas de base de emisiones y capturas de C, como se establece en el art. 3.7, y así los países Anexo 1 podrán ir conociendo sus variaciones en el carbono almacenado en años sucesivos (hasta el primer período de compromisos).

Las existencias o depósitos de carbono que deberían incluirse corresponden a aquellas logradas por actividades de forestación, reforestación y deforestación evitada, contabilizadas hasta 1990.

2) Parece que algunos tipos de información importantes del año base serán recogidas en forma retrospectiva. ¿Debería entregarse información de las mediciones de las existencias y sus cambios y ser informada antes del período de compromiso , o los informes deberían empezar durante el período?.

Las Partes deberían entregar información de las mediciones de las existencias y sus cambios e informar de ello antes del primer período de compromiso. Con ello, se está de acuerdo con el art. 3.4, en el cual se señala que antes de la primera COP/MOP, cada parte Anexo 1 deberá proporcionar al SBSTA datos que permitan establecer el nivel de carbono almacenado (existencias) correspondiente a 1990, y estimar las variaciones de ese nivel en años sucesivos. Asimismo, se estará en conformidad con el art. 3.2, en el cual se señala que las Partes Anexo 1 deberán demostrar progresos concretos para el año 2005, en el cumplimiento de los compromisos.

3) ¿Deberían las Partes monitorear todos los incrementos o reducciones en las actividades o prácticas, o es suficiente la medición de las existencias?

Conforme al art. 3.7 deberían monitoriarse todas existencias y todos los incrementos o reducciones de las emisiones y su relación con todas las actividades directas y adicionales, tanto en los inventarios de GEI como para los proyectos de los mecanismos flexibles.

4) ¿Pueden las Partes elegir cuales actividades incluirán en el primer período de cumplimiento, o necesitan incluir todas las actividades adicionales aprobadas?

Las Partes deberán incluir todas las actividades adicionales aprobadas, siempre que estas actividades se hayan realizado desde 1990, como lo establece el último párrafo del art. 3.4.

No parece conveniente dejar a elección de las Partes la selección parcial de las actividades.

Asimismo, deberían establecerse criterios sobre aquellas actividades que estén o podrían ser aprobadas en el futuro.

5) ¿Puede una Parte usar cierta actividad adicional en el primer período de cumplimiento sin informar sobre las existencias de carbono asociadas para su año base? ¿O debería entregar información sobre la situación del año base en forma retrospectiva, antes de que se pueda aplicar la decisión en el primer período de cumplimiento? Si es así, ¿cuando?

No. La información deberá entregarse a partir del año de base, sea 1990 u otro según la Parte.

En consecuencia, las actividades adicionales deberán informarse a partir de su aprobación en las guías del IPCC. Es más, las actividades que estén en trámite de ser aprobadas también deberán informarse, aun cuando estén en discusión por SBSTA para ser aprobadas por la COP.

TABLA 2. TEMAS DE POLITICA Y PROCEDIMIENTOS PARA SER CONSIDERADOS DESPUES DE LA COP 6.

A. DIRECTRICES PARA LOS INVENTARIOS E INFORMES

1) ¿Cuán exhaustivos deberían ser los informes bajo los art. 3.3 y 3.4 del P.K. ? ¿Qué nivel de desagregación deberían tener los informes sobre actividades y factores de absorción?.

En el caso de LUCF, los informes deben ser detallados y exhaustivos para facilitar su verificación, especialmente la diferenciación de si se trata de fenómenos naturales o humanos directos y adicionales, especialmente con respecto a forestación, reforestación y deforestación.

El nivel de desagregación sobre actividades y factores de absorción deberá estar normado por las guías que el IPCC recomiende a la COP/MOP.

2) Suponiendo que todas las tierras y usos de la tierra no se incluyan bajo los art. 3.3 y 3.4, ¿Qué informes adicionales se requerirían para preparar la discusión sobre el segundo período de compromiso?.

Es conveniente que se preparen los informes suponiendo que en algún período de compromiso se incluirán algunas o todas las tierras y todos usos de la tierra. En el fondo, las posibilidades de incluir determinados usos y actividades dependerán del estado de avance del conocimiento científico y de las tecnologías e información disponibles en materia de cambio climático.

Los informes adicionales tendrán relación con esas nuevas condiciones. Por esto es importante suponer escenarios y situaciones que aun no se han dado, pero que podrían darse.

3) Deberían prepararse directrices separadas que indiquen cómo las Partes deberían abordar diversos niveles de incertidumbre, o debería incluirse la incertidumbre en las directrices bajo los art. 5 y 7 del P.K?.
La incertidumbre debería incluirse en las directrices bajo los arts. 5 y 7 del P.K.
4) ¿Debería informarse los antecedentes de las actividades directas y adicionales en el período 1990 y 2008 completo?. ¿Debería informarse sobre las actividades para cada año entre 2008 y 2012 para monitorear los cambios, o debería ser el total de los 5 años?.
Sería conveniente que los informes sean anuales, para reducir la incertidumbre sobre las cantidades, la estabilidad y el destino de los sumideros. Por ello, se estima que tanto para el período 1990-2008 como para el primer período de compromisos (2008-2012), los informes deben ser anuales.
5) ¿Cómo deberían informarse los cambios en los GEI derivados de actividades adicionales, uno a uno, por actividad, por categoría, o como una lista de prácticas específicas?.
Tal como si se tratase de proyectos específicos, bastaría con que fuera uno a uno, por actividad y por categoría. La lista de prácticas específicas estaría incluida implícitamente.

6) ¿Cómo debería informarse sobre los métodos empleados?. ¿Qué información suplementaria debería proporcionarse bajo el art. 7 del P.K.?. ¿Cómo podrían establecerse las directrices de monitoreo y verificación para permitir que la información sea revisada de acuerdo con el art. 8 del P.K?.

Para el caso de los inventarios de GEI, los métodos corresponden a las directrices del IPCC, excepto que no esté debidamente detallado. Para las actividades, aprobadas o no, los detalles de los métodos deberían ser exhaustivos en términos de líneas de base y supuestos empleados.

Los procedimientos y metodología de revisión deberán tener en consideración las directivas periódicas o anuales aprobadas por la COP. Los equipos examinadores se ajustarán a las normas establecidas por el SBSTA, conforme al art. 8 del P.K.

La información suplementaria señalada en el Art. 7 del P.K. es toda aquella necesaria para demostrar el cumplimiento de los compromisos contraídos y va desde la aceptación política de la o las actividades propuestas, debidamente ratificada por los organismos públicos encargados de la coordinación nacional del Protocolo y si corresponde, la organización pública que vela por la suscripción y el cumplimiento de los acuerdos internacionales de cada parte o país, hasta consideraciones de organismos o entidades que pueden verse afectadas por los prominentes compromisos. El carácter de la información, es fundamentalmente "cualitativa" y de allí que su evaluación o verificación implique la consideración de elementos de juicio que no siempre se pueden asimilar a tablas de "benchmarking" y que requieren necesariamente el juicio y ponderación de las causas y circunstancias por parte de un monitor o evaluador independiente.

El requisito de independencia del evaluador es un asunto no discutido y aceptado unánimemente donde quiera que un proceso de verificación o certificación sea requerido. En consecuencia nuestra propuesta es que los equipos examinadores sean entidades independientes, altamente tecnificadas y calificadas, "acreditadas" por la secretaría y que deberán sujetarse estrictamente a un "Programa de Verificación de Captura y Emisión de Carbono", producido, aceptado, divulgado y respaldado por el IPCC, con las aprobaciones y revisiones de los órganos que corresponda SBSTA y otros. Este será el documento que establecerá las bases mínimas de homologación del proceso.

Entendido así, el proceso de examen señalado en el Art. 8 (3) debiera permitir una "evaluación técnica exhaustiva e integral" .

7) ¿Debería tomarse en cuenta que la transparencia de las hipótesis, métodos y análisis de los informes sean replicables por expertos internacionales en el análisis de las comunicaciones nacionales?.

Por cierto que sí. Lo importante es definir que las directrices del IPCC y SBSTA sean lo suficientemente claras y específicas para asegurar dicha transparencia.

La transparencia en los métodos es lo que permite verificar los informes de las Partes.

B MISCELANEOS

1) ¿Debería pedirse a las Partes que demuestren que las actividades "informadas" no perjudican otras tierras o uso de tierras?.

Por supuesto. A nivel de inventarios de GEI no parece tan claro pero, a nivel de proyectos de actividades humanas directas y adicionales, es necesario que las actividades informadas sean debidamente medidas o que, a falta de datos empíricos, a la actividad correspondiente se le asigne el valor "default" o "por defecto" establecido en la Guía del IPCC.

Los procedimientos e instructivos para demostrar que no se afectan otras tierras o uso de tierras deberán ser informados conforme a los criterios y normativas establecidos por el IPCC , previa revisión y aprobación del SBSTA.

2) ¿Deberían los cambios del monto asignado en las emisiones o capturas de GEI ser re calculados como resultado del perfeccionamiento de los métodos de cálculo, considerando que dichos cambios de métodos en LULUCF ocurrirían comparados con otras partes de los inventarios?. Si es así, ¿Qué procedimientos deberían aplicarse?.

No para los montos asignados en el primer período de compromisos. Sin embargo, es lógico esperar que los métodos y procedimientos de cálculo de los cambios de las emisiones y absorción de GEI sean perfeccionados en función de nuevos conocimientos científicos y técnicos. Pero estos avances deberán ser aplicados en períodos posteriores.

Los procedimientos tendrán relación con los ajustes que se hagan en los instructivos del IPCC, avalados por SBSTA. No obstante, debería tenerse en cuenta que los ajustes serían válidos desde que se establezcan en adelante, sin variar las situaciones pasadas que estén aprobadas por la COP. Por ejemplo, en el caso de los inventarios de GEIs, los cambios se aplicarían para nuevos inventarios de emisiones , y no para los ya informados por las Partes.

3) ¿Deberían las incertidumbres ser consideradas en un contexto mas amplio, como es el caso de los art. 5, 7 y 8 del P.K?.

Las incertidumbres deberían ser acotadas y definidas en los criterios y procedimientos de medición y verificación en el caso de cada actividad humana directa y adicional, así como la medición de las emisiones y capturas de GEI en cada caso.

4) ¿Cómo podrían considerarse las actividades no consideradas en el Informe Especial del IPCC?.
Aparte del listado que podría haber sobre las actividades aprobadas o pendientes, cada Parte debería estimar y considerar actividades que pudieran tener importancia en presentes y futuras evaluaciones de emisiones y capturas de GEI. Si al momento de los informes de inventarios de GEI no estuvieran aprobadas, deberían ser mencionadas y evaluadas, aunque no sean consideradas como válidas. Esto permitiría formar una base de información de actividades posibles, pero no aprobadas, para futuras determinaciones de la COP/MOP..
5) ¿Cómo podría interpretarse la verificabilidad en relación a la primera oración del art. 3.4?. (Qué procedimientos se necesitan en orden a verificar la información a niveles de los depósitos en 1990 y los cambios en años sucesivos?).
Se podría interpretar que el nivel de carbono almacenado será verificado anualmente. Para verificar dichas cuentas de carbono, resulta fundamental que existan procedimientos comunes a todas las partes. Por ejemplo, la metodología del IPCC para elaborar los inventarios es importante para estimar las variaciones del carbono almacenado anualmente, por lo que su aplicación puede constituirse en un procedimiento común, con el que todas las partes se estarían evaluando en iguales condiciones metodológicas.

LISTADO PROVISIONAL DE INFORMACIÓN Y DATOS MÍNIMOS EN EL TEMA DE CAMBIO DE USO DE LA TIERRA Y BOSQUES, PRESENTADO POR EL GOBIERNO DE CHILE

La información provisional siguiente (requerida como estadísticas anuales), es considerada importante por el Gobierno de Chile para un proceso de toma de decisión en el tema de uso, cambio de uso de la tierra y silvicultura, bajo el marco del Protocolo de Kioto. El documento responde a una solicitud del Organo de Asesoramiento Científico y Tecnológico (SBSTA), planteada en el documento FCCC/SBSTA/1999/L.9.

En relación con el recurso suelo

- Terrenos arables
- Praderas
- Terrenos improductivos
- Terrenos forestales productivos
- Terrenos forestales no comerciales (improductivos)
  - Parques Nacionales
  - Reservas de la Biosfera
  - Parques Privados

En relación con el recurso forestal ()

Para cada categoría: **Superficie** en hectáreas con arreglo a definiciones de superficie minima establecida por el IPCC.

- Global
- Por tipos forestales
- Por principales especies comerciales

Volumenes: Cubicos y Comerciales

- con indicación de indices de utilización para especies principales.

- Bosque natural
  - productivo o comercial
  - De protección en manos de privados: **Superficie:** Principales especies **Volumenes**: Cúbicos estimados
  - De protección en manos del estado: **Superficie:** Principales especies **Volumenes**: Cúbicos estimados

- Plantaciones: Valores acumulados:

Superficie en hectáreas con arreglo a definiciones de superficie minima establecida por el IPCC.

- Global
- Por especie
- Por clase de edad

Volumenes: Cubicos y Comerciales con indicación de indices de utilización para cada especies plantada por clase de edad.

- Superficie de plantación anual por especie

- Renoval (Second growth)
  - Adulto Productivo o comercial

    Superficie en hectáreas con arreglo a definiciones de superficie minima establecida por el IPCC.
    - Global
    - Por tipos forestales
    - Por principales especies comerciales

    Volumenes: Cubicos y Comerciales con indicación de indices de utilización para cada especie

  - Adulto-renoval comercial

    Superficie en hectáreas con arreglo a definiciones de superficie minima establecida por el IPCC.
    - Global
    - Por tipos forestales
    - Por principales especies comerciales

    Volumenes: Cubicos y Comerciales con indicación de indices de utilización para cada especies

  - De protección en manos de privados

    Superficie en hectáreas con arreglo a definiciones de superficie minima establecida por el IPCC
  - De protección en manos del estado

    Superficie en hectáreas con arreglo a definiciones de superficie minima establecida por el IPCC
- Krumholz y matorrales

  Superficie en hectáreas con arreglo a definiciones de superficie minima establecida por el IPCC

En relación con los productos: Para cada especie: densidad seca, contenido de carbono por M3.

- Leña Volumen por principales especies
- Madera industrial - Trozas o troncos : Volumen por especie para cada tipo de uso industrial
- Cortas: Por áreas de corta - Volumen cortado en cada área
- Productos sólidos de la madera
  - Volumenes para cada tipo de producto
  - Densidad seca
  - Contenido de Carbono según distintas densidades
- Tableros reconstituidos
  - Volumenes para cada tipo de producto
  - Densidad seca
  - Contenido de Carbono según distintas densidades

- Pulpas
  - Volumenes para cada tipo de producto
  - Densidad seca

En relación con los incendios forestales:

- Superficie afectada anualmente por cada tipo de vegetación.
  - Bosques naturales comerciales y no comerciales
  - Plantaciones
  - Pastizales
  - Mtorrales
  - Praderas naturales
  - Otra vegetación

- Número de incendios según tipo de vegetación afectada.
  - Bosques naturales comerciales y no comerciales
  - Plantaciones
  - Pastizales
  - Mtorrales
  - Praderas naturales
  - Otra vegetación

En relación con la industria

- Tasa de conversión de materia prima a producto final para cada producto industrial
- Volúmenes de productos finales producidos
- Exportaciones: Volumenes por producto
  Países de destino para cada producto

En relación con predicciones:

- Disponibilidad futura de terrenos para forestación
- Disponibilidad futura de volúmenes por cada tipo forestal en los bosques naturales
- Disponibilidad futura de volúmenes en plantaciones por cada tipo de especie

En relación con la ocupación forestal:

- Empleados en la Silvicultura y Extracción
- Empleados en la Industria
  - Aserraderos
  - Tableros a base de madera
  - Productos sólidos de la madera: Cajas,Elaborados, remanufacturas
  - Pulpa y papel
- Empleados en servicios conexos
- Empleados por cuenta propia. Contratistas y operadores independientes

PAPER NO. 3: FINLAND
(ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES)

REVIEW, AND WHERE POSSIBLE TO RESPOND TO, THE QUESTIONS POSED IN TABLES 1 AND 2 OF DOCUMENT FCCC/SBSTA/1999/5, AND TO IDENTIFY ANY ADDITIONAL POLICY AND PROCEDURAL QUESTIONS

Finland, on behalf of the European Community and its Member States, submits views and, where possible, responds to the questions posed in Tables 1 and 2 of document FCCC/SBSTA/1999/5, and also identifies some additional policy and procedural questions as requested, in accordance with FCCC/SBSTA/1999/L.9, paragraph 1(a) regarding methodological issues on Land-Use, Land-Use Change and Forestry.

The EU would like to recall its earlier submissions, in particular as presented in documents FCCC/CP/1998/MISC.1, FCCC/CP/1998/MISC.9, and FCCC/SBSTA/1999/MISC.2.

Substantial and well-informed decisions will require, *inter alia*, consideration of the IPCC Special Report on Land-Use, Land-Use Change and Forestry and of country specific data and other relevant information. Nevertheless, a preliminary analysis and an initial discussion of some of the questions raised in document FCCC/SBSTA/1999/5, and of other issues, is useful in order to improve common understanding of outstanding issues and to facilitate the international negotiation process.

The questions presented in the document are a good basis for further consideration, although not all of them can be answered at this stage. This submission emphasises the questions in Table 1, but some preliminary views are also expressed in regard to Table 2. Furthermore, the EU identifies some additional questions. Based on the IPCC Special Report, country level data and information and other developments, additional questions and refinements of views are expected. Therefore, additional questions and answers are considered to be preliminary.

Table 1. Policy and procedural issues proposed for consideration before the sixth session of the Conference of the Parties

A. Clarification of definitions

QUESTION	REVIEW, AND WHERE POSSIBLE TO RESPOND
1) *How should the boundary between human and natural phenomena be determined? And should natural processes, occurring as a result of management decisions, be counted or not (the decision to intervene in, or withdraw from, management can directly lead to changes in stock)?*	The EU notes the importance of clearly identifying the effect of human induced activities on related carbon stock changes, especially given the size of carbon flows between the atmosphere and the biosphere. The IPCC Special Report and national experiences are expected to provide valuable information on these issues. There is also a need to indicate the extent to which it is possible, at acceptable accuracy and reasonable cost, to differentiate and estimate direct and indirect effects on carbon stocks. The ability to detect and verify the possible effects of human activities on related carbon stock changes are therefore important issues in determining the boundary between human and natural phenomena and in choosing which activities should be included under Articles 3.3 and 3.4 of the Kyoto Protocol to help fulfil the ultimate objective of the Convention.
2) *How should the boundary between direct and indirect be determined?*	This question should be considered in the context of question A.1 and in the context of activities which may be agreed upon. The IPCC Special Report and national experiences are expected to provide valuable information on these issues. The EU also notes that the term "activity" will require further consideration.

3) Which, if any, policies and programmes resulting in human-induced activities should be included under Article 3.3 and 3.4?

Policies and programmes that lead to agreed Art 3.3 or 3.4 type activities. The key issues are e.g. the effects of the policies to changes in carbon stocks and aspects of verifiability. Policies and programmes could be reported but only their impact on changes in carbon stocks should be accounted.

The direct effects, i.e. changes in carbon stocks, should be accounted, provided that these can be reflected in a verifiable manner in the national inventory, and in any supplementary information provided in accordance with Article 7 of the Protocol. However, double accounting should be avoided.

4) What is the relationship between additional activities approved under Article 3.4 and the second sentence of Article 3.7?

The relationship between activities under Article 3.4 and the second sentence of Article 3.7 should be to avoid possible double accounting, gaps in information, unintended effects or perverse incentives. This should be reflected in modalities, rules and guidelines to be agreed upon. The relationship with the activities under Article 3.3 may also require further consideration. In this regard, the EU has emphasised the importance of reporting on all carbon stocks and their changes as mandated under the first sentence of Art 3.4.

Estimates for emissions and removals under the second sentence of Article 3.7 should be consistent with the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, whereas verifiable changes in carbon stocks by additional activities would require supplementary development under the provisions of Article 7 of the Protocol.

Fulfilling the requirements under the first sentence of Art 3.4 is relevant also to countries for which the second sentence of Art 3.7 applies.

B. Eligibility of additional activities

QUESTION	REVIEW, AND WHERE POSSIBLE TO RESPOND
1) Should activities under consideration be in conformity with the relevant clauses of the Convention (e.g. Articles 3.3, 3.4, and 4.1.d) and those of the Kyoto Protocol (e.g. Article 2.1 (a) (ii) and 2.1 (a) (iii))?	Activities under consideration should be in conformity with the relevant clauses of the Convention and those of the Kyoto Protocol but this would not be sufficient for eligibility. <u>Additional question</u>: How should activities under consideration be treated in the context of inventory guidelines and reporting?
2) Should activities under Article 3.3 and 3.4 be in conformity with other conventions, such as the Convention on Biological Diversity, the Convention to Combat Desertification, and other international agreements related to forests? If so, how should these agreements be applied?	Yes. Activities under Articles 3.3 and 3.4. should be compatible and mutually supportive with other conventions, international agreements and other international work related to forests. Communication and coordination are needed to produce this conformity for example in respect of reporting formats and the use of different definitions. There is also a need for a holistic and comprehensive approach on forest related issues in the form of international arrangements and mechanisms, for example a legally binding instrument. Countries and international and regional organisations are encouraged to develop harmonised, cost-effective, comprehensive reporting formats, for collecting and synthesising national information and for meeting diverse demands for reliable and timely data by various international organisations and other bodies. One important area of application of the agreements will be to ensure that sustainable development needs and socio-economic implications are taken into account. Further development of related eligibility criteria may be needed. Creating a list of activities and impacts that might not be in conformity with other conventions and processes could start this work. Issues related to conformity with other conventions should also be considered when reporting requirements of the Kyoto Protocol are discussed.

3) Should levels of uncertainty be a criterion for the inclusion of additional activities under Article 3.4? And if so, should these levels of uncertainty be different from those associated with Article 3.3 or other sources?	The concept of uncertainty has many different elements e.g. estimation and accounting methodologies, activity data, scientific understanding, institutional accountability, and long-term stability of sinks. Uncertainty is an important criterion for the decision-making process concerning additional activities under Article 3.4. Special provisions for reducing uncertainty by measurement may be an eligibility criterion. The associated relative uncertainties related to additional activities should not exceed those related to Article 3.3.
4) What specific information on uncertainties and verifiability is required to determine whether an additional activity should be included under Article 3.4?	Parties might be required to provide empirical evidence including monitoring of stocks to show that uncertainties were within agreed limits. This question can be further considered when the IPCC Special Report, as well as country specific data and information, including national experiences on inventories and uncertainties, has been considered.

5) What other criteria should be applied to guide a decision-making process in relation to Article 3.3 and 3.4?

Other criteria to be applied should include, *inter alia*, the following:

(i) Availability of country-specific data and other relevant information.

(ii) The linkage to national commitments - the incentive for emissions reductions should be maintained.

(iii) Permanency of stocks - sinks are vulnerable to climate change and other pressures and can reverse in sign. The perspective has to be far beyond one commitment period. Parties should be held accountable over a long term for changes in the carbon stocks they use to meet their commitments during a commitment period. Once a sink enters the Kyoto carbon accounting system, it should permanently stay in.

(iv) Linkages to changes in the full carbon stock - stock changes resulting from Art. 3.4 as well as from Art. 3.3 activities should adequately reflect the direction of changes in all carbon stocks. These are some of the reasons why the EU has emphasised the importance of reporting on all carbon stocks in 1990 and changes in subsequent years and also why the EU also welcomes that the full carbon stock accounting will be analysed in the Special Report.

(v) Verifiability of data - the EU views verification as relating primarily to changes in carbon stocks. In this regard it would be useful to take experiences from related inventory systems into account.

(vi) Principle of symmetry - both removals and emissions related to activities in the agricultural soils and the land-use change and forestry categories should be considered as changes in carbon stocks.

(vii) Compatibility with the UN Forest Principles and proposals for action of the Intergovernmental Panel on Forests. The role of forests as carbon sinks and reservoirs can be best ensured through sustainable forest management.

C. Rules governing the use of approved activities

QUESTION	REVIEW, AND WHERE POSSIBLE TO RESPOND
1) For what purpose do we need information on stock levels in 1990 in the context of Article 3.3 and 3.4? What stocks and/or carbon pools should be included in that information?	Amongst other things, to monitor stocks in view of possible unintended effects. Substantial and well informed decisions will require, *inter alia*, consideration of country specific data and other relevant information. Further details are given in other EU submissions.
2) *Some types of data relevant to the base year are likely to be collected in retrospect. Should activity data, information on the measurement of stocks and changes to stocks be reported prior to the commitment period or should reporting begin during the commitment period?*	Data have to be available in the form of preliminary/provisional data and information before any decision on additional activities under Article 3.4. This information is essential, for example, for a transparent analysis of the impacts of additional activities on already agreed emissions limitation and reduction targets and for an analysis of the permanence of stocks. Data prior to the commitment period are also useful in assessing demonstrable progress made by Parties. This question will be reflected more comprehensively in the other EU submissions. The answer to the question on activity data also depends on the type of additional activities and/or approaches to be agreed upon.
3) Should Parties monitor all increases and decreases in activities/practices, or is the measurement of stock sufficient?	Changes in carbon stocks should be accounted, but information on activities and/or practices shall also be reported for the sake of verifiability, transparency and assessment of uncertainties. Parties should be encouraged to make the best use of existing monitoring systems and databases.

4) Can Parties choose which activities they include in the first commitment period or do they need to include all approved additional activities?	The EU makes reference to the last sentence of the Article 3.4: *"A Party may choose to apply such a decision on these additional human-induced activities for its first commitment period, provided that these activities have taken place since 1990."* As some additional activities may overlap with activities under Art. 3.3 or any other additional activity, or may not be applicable in a certain country, country specific data and information are also required for appropriate consideration of this issue. Monitoring changes in the whole carbon stock plays a major role in considering answers to this question.
5) *Can a Party use a certain additional activity in the first commitment period without reporting on associated carbon stocks for its base year? Or should it submit data on the base year situation retrospectively before it can apply the decision in the first commitment period? If so, when?*	Prerequisites for decision-making and on usage of the additional activities are country specific data and information on the level of carbon stocks and their changes. See also the EUÿs another submission on data needs.

Table 2. Policy and procedural issues proposed for consideration after the sixth session of the Conference of the Parties

A. Inventory and reporting guidelines

QUESTION	REVIEW, AND WHERE POSSIBLE TO RESPOND
1) *How comprehensive should reporting be under Article 3.3 and 3.4 of the Kyoto Protocol? On what level of disaggregation should activity data and removal factors be reported?*	The EU stated in its earlier submission regarding Article 3.3 that: "regarding verifiability of changes in carbon-stocks and transparency in reporting the EU endorses a system of full reporting which gives insight into all changes in all carbon-pools during the commitment period". The EU anticipates that reporting under these Articles will need to be, as appropriate, specific by geographical location, timing of policy, and dynamics of carbon stocks so that the time resolved uptake and loss of carbon can be assessed to agreed levels of precision and statistical confidence, and changes in carbon stocks may need to be calculated from inventories not coinciding with commitment periods. The IPCC Special Report and national experiences on data and information may provide valuable information on these issues.
2) Assuming that all lands and land-uses will not be included under Article 3.3 and 3.4 of the Kyoto Protocol, what additional reporting should be required so as to prepare for discussion on a second budget period?	It seems premature to answer to this question until we have considered draft decisions on Article 3.3 and 3.4 and until the revision of the IPCC guidelines is underway. The EU believes that reporting on carbon stocks in 1990 and subsequent years, as explained in another EU submission, also relates to this issue.

3) Should separate guidelines be developed that indicate how Parties should deal with the various levels of uncertainty or should uncertainty be incorporated into guidelines under Articles 5 and 7 of the Kyoto Protocol?	It is necessary to address all kinds of uncertainty associated with LULUCF including uncertainties related to changes in carbon stocks in the context of Articles 3.3 and 3.4. This question goes wider that the LULUCF issues and will need to be considered in the light of the IPCCÿs current work on uncertainties and good practices in emission inventories. Special provisions may be needed under the provisions of Articles 5 and 7 of the Kyoto Protocol for uncertainties related to changes in carbon stocks in the context of Articles 3.3, 3.4 and 3.7.
4) *Should activity data be reported between 1990-2008? Should activity data be reported for individual years between 2008-2012 to monitor changes or is the net total for the 5 years sufficient?*	Before reaching decisions on additional activities, their potential impact on emission limitation and reduction targets will have to be analysed using country-specific data from the time period before the first commitment period. The issue of activity data and changes in carbon stock (during a period of five years) requires further consideration.
5) How should changes in GHG emissions from, and removals by, additional activities be reported: one by one, per activity, per category, or as a list of specific practices?	The EU already proposed in its earlier submission that for the sake of transparency, a separate reporting should be introduced for each Art. 3.3 activity. In a similar manner, reporting on additional activities should be presented in a transparent way. An answer to this question might depend on the type of additional activities and/or approaches to be agreed upon. It remains to be seen, how specific or comprehensive the activities will be and it will, in turn, have an effect on, e.g., the feasibility of reporting per activity, per category, or as a list of specific practices. <u>Additional issue for consideration</u>: The relationship between changes in carbon stocks and emissions and removals of greenhouse gases may deserve further consideration.

6) How should information on methods be reported? What supplementary information should be reported under Article 7 of the Kyoto Protocol? How should monitoring and verification guidance be developed to allow information to be reviewed according to Article 8 of the Kyoto Protocol?	It is proposed to discuss this question in conjunction with the work of the IPCC on Greenhouse Gas Emission Inventories. This question cannot yet be answered in detail. The general requirement is that the information from Parties should allow independent auditing and review by third parties that should be able to reconstruct all the principle results.
7) Should transparency in reporting be taken to mean that the assumptions and methods of analysis should be replicable by international experts using information provided in annual inventories and/or the national communications?	Yes, assuming access to sources and archived data referenced in these documents. Transparency in reporting should be considered also in a broader context.

B. Miscellaneous

QUESTION	REVIEW, AND WHERE POSSIBLE TO RESPOND
1) Should Parties be required to demonstrate that "reported" activities do not adversely affect other lands and land-uses?	This question seems to refer to leakage. Full reporting on changes in all carbon stocks should be required, and wider socio-economic and environmental impacts deserve further consideration.
2) Should the changes in greenhouse gas emissions by sources or removals by sinks to be added to, or subtracted from, the assigned amount, be recalculated as a result of future refinements of methods, considering that changes to methods in LULUCF are more likely to occur compared to other parts of the inventory? If so, what procedures should be applied?	Yes, subject to development of the IPCC methodology as required and its acceptance by the COP, and in the context of reporting and review procedures agreed by the Parties.

3) Should uncertainties be considered in a broader context (Articles 5, 7 and 8 of the Kyoto Protocol)?	Yes. It is necessary to address all kinds of uncertainties associated with LULUCF. The broad treatment of uncertainties under Articles 5, 7 and 8 is yet to be decided, but special treatment may be needed for Articles 3.3, 3.4 and 3.7.
4) How can activities not included in the IPCC Special Report be given consideration?	Countries may wish to provide their views on additional activities and/or approaches not included in the IPCC Special Report for further consideration.
5) How should verifiability be interpreted in relation to the first sentence of Article 3.4? (What procedures do we need in order to verify information on levels of stocks in 1990 and changes to those stocks in subsequent years?)	The EU believes that Parties should provide the preliminary data required by the first sentence of Article 3.4 before SBSTA-12. This data should include, *inter alia,* report on the procedure for verification and the validation of data that Parties currently have in place. After the completion of the IPCC Special Report and its consideration further clarification and elaboration may be required.

PAPER NO. 4: JAPAN

PRELIMINARY RESPONSES SUBMITTED BY THE GOVERNMENT OF JAPAN ON ISSUES OF DOCUMENT FCCC/SBSTA/1999/5 ABOUT SINKS

The Government of Japan (GOJ) submitted to the SBSTA information related to Article 3.3 of the Kyoto Protocol (KP) on August 26, 1998, and information related to Article 3.4 on October 26, 1999. In addition, the GOJ submitted information about policy and procedural issues associated with Article 3.3 and 3.4 on March 12, 1999. It is of prime importance that these submissions be fully taken into account and be properly addressed at SBSTA and IPCC discussions.

For the purpose of dealing with the issue of Land Use, Land Use Change and Forestry (LULUCF), the GOJ believes that it is important to take a definitive step forward to reach an international agreement about sink issues that is fair and contributes to the prevention of global warming. It should be achieved by further collaboration between the SBSTA and the IPCC with regard to further elaborating the issues by recognising the importance of each role.

Hereinafter, the GOJ is taking this opportunity to deliver its view on issues concerning tables 1 and 2 of document FCCC/SBSTA/1999/5, based on the conclusions from the SBSTA 10th session which stated that, " invited Parties are requested to review, and where possible to respond to, the questions posed in tables 1 and 2 of document FCCC/SBSTA/1999/5, and to identify any additional policy or procedural questions. It requests Parties to provide submissions… on those issues by 16 August 1999, for compilation into a miscellaneous document, and for consideration by the SBSTA at its eleventh session." Yet, the GOJ notes that additional policy and procedural issues should be clearer after the completion of the IPCC Special Report on LULUCF.

Comment on Table 1. Policy and procedural issues proposed for consideration before the sixth session of the Conference of the Parties (COP6)

A. Clarification of definitions

(3) Which, if any, policies and programmes resulting in human-induced activities should be included under Article 3.3 and 3.4?

Policies and programs should be evaluated based on those effects that are related to Articles 3.3 and 3.4 and which stem from human-induced activities resulting from said policies and programs.

B. Eligibility of additional activities

It is important that the additional activities be determined at COP6. However, data and information collection of additional activities is generally regarded to be activity-specific and complicated compared to Article 3.3 activities. Therefore, the framework should be flexible enough, especially in the context of time, to judge the eligibility of additional activities. In other words, it is necessary to consider a framework which provides for continuous review and reconsideration of the eligibility of additional activities even after COP6 by COP/MOP1

to allow for new scientific and technical methodologies and means to be included in the framework.

(3) Should levels of uncertainty be a criterion for the inclusion of additional activities under Article 3.4? And if so, should these levels of uncertainty be different from those associated with Article 3.3 or other sources?

Levels of uncertainty should be an important component of criteria for the inclusion of additional activities under Article 3.4. Yet, to avoid excluding eligible activities due to uncertainties, it is also necessary to consider other reasonable means such as capping and discounting for reducing uncertainties in order to be able to deal with these activities under Article 3.4. Furthermore, in addition to levels of uncertainty, levels of reporting transparency and verifiability should be also included as a criterion of Article 3.4. And it is necessary to set the framework for including new activities when an appropriate measure to reduce the uncertainties is taken and which works sufficiently after taking the decision on the levels of uncertainty at COP6.

(4) What specific information on uncertainties and verifiability is required to determine whether an additional activity should be included under Article 3.4?

In order to increase verifiability, at least the following elements should be contained:

- data, sources and methods can be reviewed; and
- repeated accounting is possible.

(5) What other criteria should be applied to guide a decision-making process in relation to Article 3.3 and 3.4?

As stated in Article 2, the following criteria should also be taken into account in the process of decision making of Article 3.3 and 3.4:

- whether the activity protects and intensifies sinks and sources for greenhouse gases,
- whether the activity promotes sustainable forest management, afforestation and reforestation. ?

Furthermore, the GOJ requests that a criterion of, “consistency of carbon balance” should be also applied to Article 3.4. With regard to defining activities falling under Article 3.4, in order to prevent an imbalance from arising in the carbon balance, it is necessary to treat multiple activities as components of a single set, establishing the definition in such a way that emissions-controlling activities and emission-promoting counterpart activities are symmetric, as is the case with ARD activities under Article 3.3.

PRELIMINARY RESPONSES SUBMITTED BY THE GOVERNMENT OF JAPAN ON THE NEED FOR COUNTRY-SPECIFIC DATA AND INFORMATION AND ITS RELATIONSHIP TO A DECISION-MAKING FRAMEWORK IN THE CONTEXT OF THE REQUIREMENTS OF THE KYOTO PROTOCOL REGARDING SINKS ISSUES

The Government of Japan (GOJ) submitted information to the SBSTA related to Article 3.3 of the Kyoto Protocol (KP) on August 26, 1998, and information related to Article 3.4 on October 26, 1999. In addition, the GOJ submitted information about policy and procedural issues associated with Article 3.3 and 3.4 on March 12, 1999. It is of prime importance that these submissions be fully taken into account and be properly addressed at SBSTA and IPCC discussions.

For the purpose of dealing with the issue of Land Use, Land Use Change and Forestry (LULUCF), the GOJ believes that it is important to take a definitive step forward to reach an international agreement about sink issues that is fair and contributes to the prevention of global warming. This should be achieved by further collaboration between the SBSTA and the IPCC in elaborating the issues by recognising the importance of each role.

Hereinafter, the GOJ is taking this opportunity to deliver its view on the need for country-specific data and information and its relationship to a decision-making framework in the context of the requirement of the KP, in response to the conclusions from the SBSTA 10th session which stated that, "the SBSTA decided to begin the consideration, at its eleventh session, of the need for country-specific data and information and its relationship to a decision-making framework in the context of the requirements of the Kyoto Protocol. It requests Parties to provide submissions on this subject … by 16 August 1999, for compilation into a miscellaneous document for consideration by the SBSTA at its eleventh session."

I. Article 3.3

In order to take decisions on definitions of related issues under Article 3.3 at COP6, the GOJ proposes a decision-making framework as outlined in Figure 1. The GOJ requests that its view be discussed at SBSTA11 and that a decision on implementing this framework be made. The purpose of its framework is as follows.

In order to decide definitions of related issues pertaining to Article 3.3, the GOJ believes it is necessary to decide on the data needed to consider at SBSTA12 the implications of options for Article 3.3 definitions. The SBSTA then proceeds to request the Parties to submit the data to be used at the workshop and at COP6.

It is imperative that the workshop to be held between SBSTA12 and COP6 provide a forum for thorough discussion about the implications of options for definitions provided by the Special Report and be carried out using data submitted by the Parties.

Accordingly, the following items need to be considered at SBSTA meetings before COP6.

- At SBSTA11 the SBSTA should decide the agenda for SBSTA12 in line with Parties' opinions submitted by August 16, regarding the issues related to tables 1 and 2 of FCCC/SBSTA/1999/5 and the decision-making framework, and request Parties to submit their opinions about the agenda.

- At SBSTA12, Parties should consider the implications of various options for definitions provided by the IPCC Special Report, determine the data necessary for consideration at the workshop and later decision at COP6, and set agenda for the workshop. The SBSTA should then proceed to request Parties to submit the data.

- At the workshop, based on the data submitted by the Parties, the Parties should further consider and evaluate the options for definitions provided by the Special Report.

- At SBSTA13 (COP6), Parties should determine definitions related to issues under Article 3.3.

II. Article 3.4

In order to take decisions on the additional activities of Article 3.4 at COP6, the GOJ proposes a decision-making framework as outlined below in Figure 2. The GOJ requests that its view be discussed at SBSTA11 and that a decision on implementing this framework be made. The purpose of our framework is as follows.

In order to take decisions on additional activities at COP6, it is important at to consider at SBSTA11 a “list of eligible additional activities of Article 3.4” and decide the basic criteria and guidelines to choose additional activities.

It is important for SBSTA to request the Parties to submit the data necessary for the discussion and further elaboration of the list of eligible additional activities at the workshop.

Based on this elaboration, the SBSTA should proceed to take decisions on additional activities of Article 3.4 at COP6. After COP6, the range of approved activities will have to be reviewed periodically or as necessary.

Accordingly, the following items need to be considered at the SBSTA meetings before COP6.

- At SBSTA11, the SBSTA should decide the agenda for SBSTA12 in line with Parties’ opinions submitted by August 16, regarding the issues related to tables 1 and 2 of FCCC/SBSTA/1999/5 and the decision making framework and requests the Parties to submit their opinions regarding the agenda and regarding eligible additional activities of Article 3.4.

- At SBSTA12, the SBSTA should consider the list of eligible additional activities, decide basic criteria and guidelines for the selection of activities, request the Parties to submit data for the consideration at the workshop and at COP6, and set agenda for the workshop.

- At the workshop, the Parties should discuss and evaluate a list of eligible additional activities of Article 3.4 by referring to the data submitted by Parties.

- At SBSTA13 (COP6), the SBSTA should determine additional activities.

Figure 1. Decision-making framework for definitions of ARD activities and related issues under Article 3.3

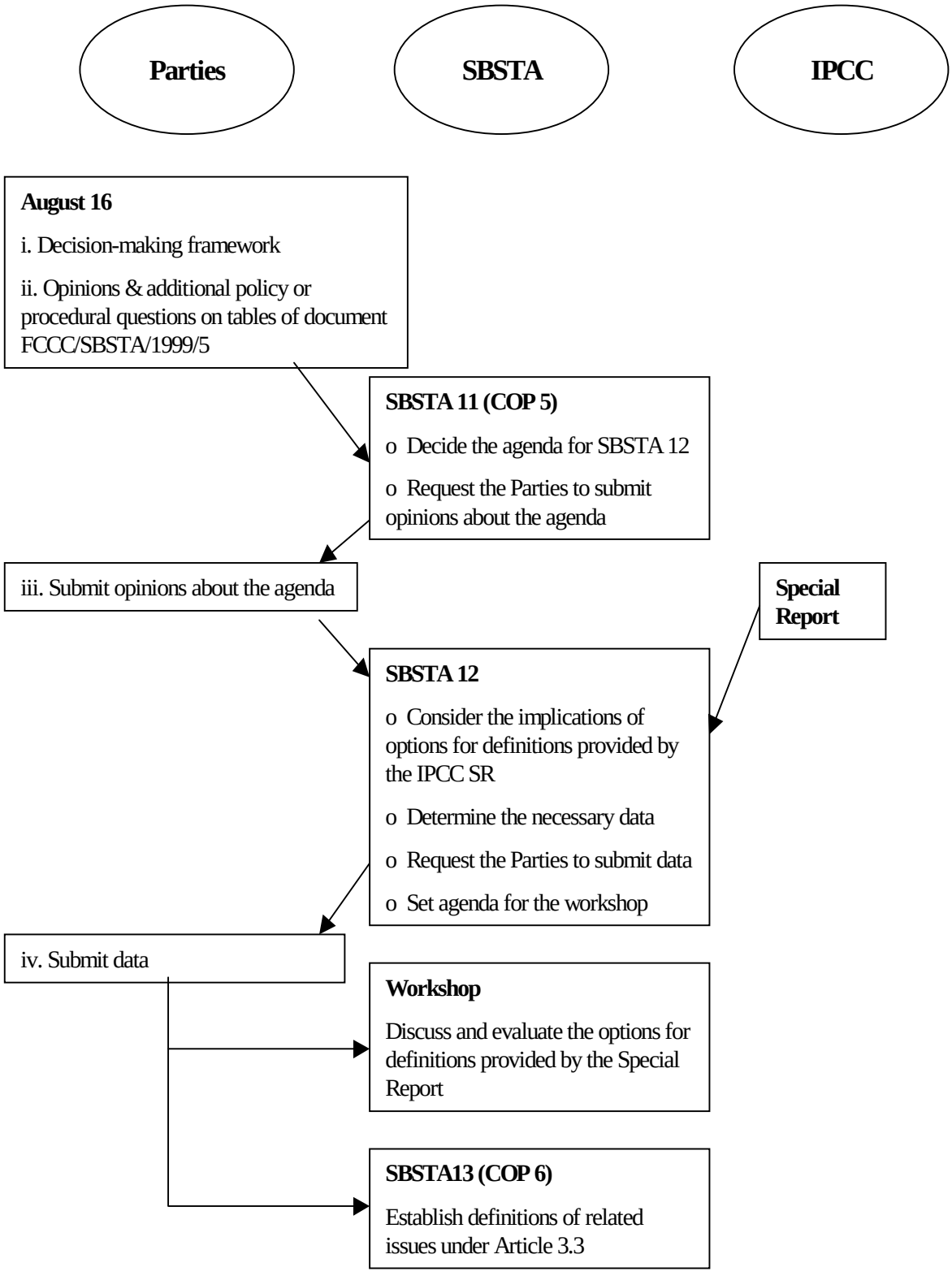
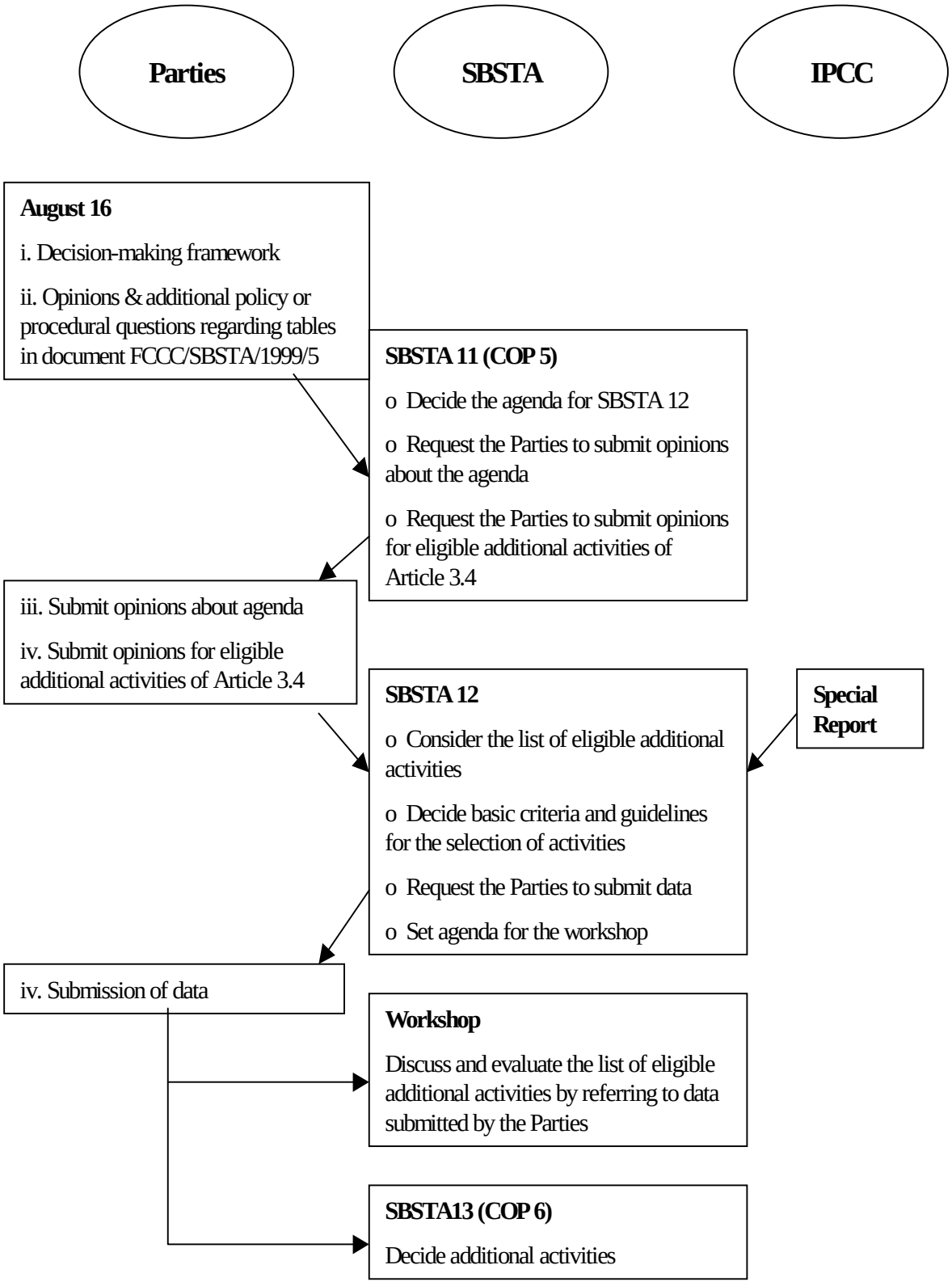


Figure 2. Decision-making framework for activities under Article 3.4



PAPER NO. 5: NORWAY

LAND-USE, LAND-USE CHANGE AND FORESTRY

According to the conclusion by the chairman on Land-Use, Land-Use Change and Forestry at SBSTA 10 (document FCCC/SBSTA/1999/L9), Parties were invited to review, and where possible respond to, the questions posed in tables 1 and 2 of document FCCC/SBSTA/1999/5, and to identify any additional policy or procedural questions. Furthermore, Parties were requested to submit views on the need for country-specific data and information and its relationship to a decision-making framework in the context of the requirements of the Kyoto Protocol. We hereby submit the Norwegian views on these issues. The submission is divided in two parts. In the first part you find our comments and answers to the questions in table 1 of the document FCCC/SBSTA/1999/5. We have found it somewhat premature to answer the questions in table 2, and have at this stage no comments to the questions as they are posed. In the second part you find our view on the need for country-specific data and information on LULUCF.

1. Review of questions posed in document FCCC/SBSTA/1999/5

In our opinion, it is at present not possible to give complete answers to these questions before we know the outcome of the IPCC Special report on Land Use, Land Use Change and Forestry. We think the procedural and more political questions will be easier to discuss when the effects of different definitions, etc. are analysed on a scientific and technical level. Nevertheless, this submission contains some preliminary views on some of the questions. We recognise that other Parties may have other but relevant views and arguments, which may also influence our final stand.

The IPCC Special report will address scientific and technical issues and other matters of importance for implementing the Kyoto Protocol, and will hence not provide all the answers connected to Articles 3.3 and 3.4, since a lot of these questions are not policy-neutral in character. The Parties are therefore bound to come to decisions on many of these issues, and we find it important that Parties begin this process as soon as possible. The questions in Tables 1 and 2 are very helpful in that respect. Norway would however like to repeat that the IPCC Special report should be the main basis for decisions regarding Articles 3.3 and 3.4 of the Kyoto Protocol.

Table 1. Policy and procedural issues proposed for consideration before the sixth session of the Conference of the Parties

A. Clarification of definitions

1) How should the boundary between human and natural phenomena be determined? And should natural processes, occurring as a result of management decisions, be counted or not (the decision to intervene in, or withdraw from, management can directly lead to changes in stock)?

It is very difficult to define the boundary between terms like “natural” and “human induced” phenomena. However, we assume that the IPCC report will provide information, which will help the Parties to make a decision on this point. Our preliminary view is that for instance natural revegetation could be defined as a human induced activity if this practice is deliberate policy as part of the forest management. In some cases natural revegetation is an integral part of a policy to increase biodiversity in forests, and could therefore be counted.

2) How should the boundary between direct and indirect be determined?

Direct human induced activities related to afforestation and reforestation should include all practices that are implemented with the purpose to establish and re-establish forests. This includes planting, seeding and other forest practices, which will accelerate the revegetation of the forests. The IPCC report will presumably give further information on this point.

In many countries, including Norway, withdrawal of agricultural land-use practices will allow natural revegetation to occur. One could say that this is a human induced activity, but we think that in principle, such natural revegetation should not automatically be defined as direct human induced activities. However, it may be difficult to evaluate from forest inventories which revegetation activities are based on deliberate policy in this respect and which are not.

3) Which, if any, policies and programmes resulting in human-induced activities should be included under Article 3.3 and 3.4?

For the first commitment period, Norway finds it important that harvesting and other forest management activities which may be included in Article 3.4 should be limited to those areas defined under Article 3.3. For the second and subsequent commitment periods, it is our general view that one should aim for full carbon stock accounting, which will require development of sufficient estimation methodology. An inclusion of full carbon stock accounting may necessitate new and more differentiated commitments among Parties for future commitment periods.

Activities that would change the net CO_2 sink in soil should be included under Art. 3.4, as long as the stock change can be measured in a verifiable way. However, guidelines and rules on activities related to soil carbon should take into account that the stock change processes are highly dependent on temperature, latitude, altitude and vegetation cover.

Norway believes that it is important that any programme accepted for inclusion under Articles 3.3 and 3.4 resulting in human-induced activities should endeavour to maintain and support sustainable forest management. For instance, one should aim for a definition of “human-induced” that prevents Parties from obtaining credits for converting natural forest to plantations defining this as reforestation under Article 3.3.

The forest activities related to Articles 3.3 and 3.4 are relevant only to a minor part of the managed forests in many Annex B countries, at least for those in the boreal area. Here the forest rotation cycle would typically be 70-120 years because of the climatic conditions. Due

to the slow growth rate of the forest stock in these countries, the carbon sink credited in the commitment period from afforestation, reforestation and deforestation after 1990 may in some cases be negative, while the forest as a whole remains a large net carbon sink. In other countries, with significantly warmer climate and a rotation cycle which may be less than 20 years, the situation may be different. Norway will support efforts to avoid that Articles 3.3 and 3.4 give unintended effects.due to climatic differences among Parties.

4) What is the relationship between additional activities approved under Article 3.4 and the second sentence of Article 3.7?

For the first commitment period, we find it essential that the land use change activities mentioned in the second sentence of Article 3.7 refer to the activities described under Article 3.3. This is because only these activities were taken into account when the Parties' commitments were decided upon. If it is decided that also additional activities can be taken into consideration under Article 3.4, it should be made clear that the emissions/removals resulting from these activities also must be included in the base year referring to Article 3.7.

> We suggest an additional question: *"Which carbon stocks should be included under Article 3.3?"* In our view, it is important to concentrate, not only on the activities, but also on the effects of the activities related to the carbon content.

All carbon biotic stocks should be included under Articles 3.3, provided that they can be measured in a verifiable manner. This means that the whole tree including the stem wood, branches, tops, stumps and roots should be considered. In addition, we find it particularly important to include verifiable changes in carbon stocks in forest soil linked to the activities included under Art. 3.3,as well as future activities to be included under Article 3.4. Forest establishment on carbon rich soil, e.g. mires, could involve a carbon loss to the atmosphere rather than a carbon sink.

If harvesting is accepted as one of the additional activities under Article 3.4, and limited to forest areas defined under Article 3.3, it would be consistent to include activities that will increase the lifetimes of wood products and other CO_2 sequestration in wood products and landfills etc. When guidelines for estimation and reporting of CO_2 emissions and sinks for wood products have been approved, and countries are able to measure stock change in wood products in a transparent and verifiable way, Norway may support the inclusion of wood products under Article 3.4, though the overall effect of such inclusion may prove limited. In a study (SFT 1998:05. A balance of use of wood products in Norway) we have estimated the net annual accumulation of CO_2 in wood products in Norway to constitute not more than about 3 % of the net annual CO_2 sink in forests.

> We suggest another additional question: *How should forest-related emissions of methane and other greenhouse gases be included under Articles 3.3 and 3.4?* We think that there is a need for a comprehensive approach, and that for instance methane emissions should not be forgotten in this context. Methane is e.g. produced during decomposition of waste wood in the forest, and from waste wood disposed of at landfills. According to estimations, about 30% of the carbon of the original tree are

left in the forest after harvesting, and may produce methane during the decay process under certain conditions. Furthermore, methane is produced in mires, and land-use activities involving mires will affect the methane emissions.

B. Eligibility of additional activities

1) *Should activities under consideration be in conformity with the relevant clauses of the Convention (e.g. Articles 3.3, 3.4, and 4.1.d) and those of the Kyoto Protocol (e.g. Article 2.1 (a) (ii) and 2.1 (a) (iii))?*

2) *Should activities under Article 3.3 and 3.4 be in conformity with other conventions, such as the Convention on Biological Diversity, the Convention to Combat Desertification, and other international agreements related to forests? If so, how should these agreements be applied?*

Answer to 1 and 2: It is crucial that none of the activities to be included under Article 3.3 and 3.4 are in disagreement with any of the articles of the Convention or the Kyoto Protocol, and that they are in conformity with the Conventions mentioned as well as other international agreements related to forests.

According to the Convention on Biological Diversity, the Parties should identify and report on biological diversity that needs preservation measures and on activities that may threat the diversity in their counties. This could be valuable information also related to the commitments under the Kyoto Protocol.

Some examples: Afforestation of non-forest land may lead to reduced biodiversity or destroy valuable types of natural resources. Afforestation of rich mires may for instance reduce the diversity. We also need to bear in mind that replanting should be carried out avoiding the creation of monocultures. Both afforestation of agricultural land and change of tree species may hence contribute to depreciation of biodiversity if this is not taken into consideration during the planning of the measure. Fertilising of forests may be another activity leading to enhanced removal of CO_2, but it may have negative consequences for the environment by eutrophication of terrestrial and aquatic ecosystems.

3) *Should levels of uncertainty be a criterion for the inclusion of additional activities under Article 3.4? And if so, should these levels of uncertainty be different from those associated with Article 3.3 or other sources?*

Uncertainty is related to all sources of emissions and removals. In this sense, the level of uncertainty related to the uptake of CO_2 in the living forest may not be very different from the level connected to emissions from other emission sources of CO_2. However, uncertainty related to estimations of effects of activities or carbon pools may be very high. This may for instance be true for CO_2 in soil. In general, the uncertainty in level, when considering a specific year, is higher than the uncertainty in trend, looking at the change in per cent over a period of several years. The latter refers to how the Kyoto Protocol is modelled. The most important criteria may be that activities for which one is not able to measure the resulting

change of emissions significantly (for instance within a level of significance of 90%), should not be included under Article 3.4. Furthermore, the rules and guidelines must be elaborated in a way so that the Parties are encouraged to improve the mapping and measurements of their carbon pools, and thus get uncertainties down to acceptable levels.

In principle, there should not be any difference in the way we approach the issue of uncertainty associated with activities under Article 3.3 and 3.4.

4) What specific information on uncertainties and verifiability is required to determine whether an additional activity should be included under Article 3.4?

The information on uncertainty should be quantified in a verifiable way, and to the largest extent possible it should be specified for each source.

5) What other criteria should be applied to guide a decision-making process in relation to Article 3.3 and 3.4?

We emphasise that the additional activities included under Article 3.4 for the first commitment period should be limited to those areas defined under Article 3.3, as mentioned earlier. For the subsequent commitment periods, one should aim for full carbon stock accounting, which means that new and more differentiated commitments for the Parties must be considered.

C. Rules governing the use of approved activities

1) For what purpose do we need information on stock levels in 1990 in the context of Article 3.3 and 3.4? What stocks and/or carbon pools should be included in that information?

In our understanding, both Article 3.3 and Article 3.4 represent a gross-net commitment for the first period 2008-2012. Thus, the stock levels in 1990 would, as far as our knowledge, be without significance for the commitment. On the other hand, this information may be important as a basis for verification and transparency related to the state of the Parties' forests as well as the methodology for estimating and measuring the removals in relation to Articles 3.3 and 3.4. We do see the need for establishing a system of mapping the stock levels and the changes in these, not only for 1990, but also for subsequent years (e.g. 1995, 2000 and 2005). Such a system would be particularly useful when negotiating the commitments for the next periods.In addition, information on stock levels in 1990 is very relevant in relation to Article 3.7.

We suggest that the stocks and carbon pools to be included in such information should include forests, forest soil, wood products and landfills, while carbon pools like estuaries and other aquatic systems may be left out.

2) Some types of data relevant to the base year are likely to be collected in retrospect. Should activity data, information on the measurement of stocks and changes to stocks

be reported prior to the commitment period or should reporting begin during the commitment period?

As mentioned under point C1, this information may be important as a basis for verification and transparency related to the state of the Parties' forests as well as the methodology for estimating and measuring the removals in relation to Articles 3.3 and 3.4. Furthermore, Parties that want to use the possibility given in the last sentence of Article 3.4 should be obliged to establish national systems for estimating emissions by sources and removals by sinks in accordance with Article 5 of the Protocol as soon as possible, and prior to the first commitment period.

3) Should Parties monitor all increases and decreases in activities/practices, or is the measurement of stock sufficient?

In our opinion, Parties should probably monitor both increases/decreases in activities/practices and stock, i.a. because stock change can not be measured in the specific forest areas alone, they would anyway have to be supplied by information on the size of the afforested, reforested and deforested areas etc. In many countries, areas included under Article 3.3 and the last sentence of Article 3.4 are so small that traditional National Forest Inventories will not be sufficient. Information on activities etc. would also be useful for verification, comparison and transparency reasons.

4) Can Parties choose which activities they include in the first commitment period or do they need to include all approved additional activities?

It should not be possible for Parties to choose which of the approved activities to include, since it then obviously would be tempting to choose only activities where the removal of carbon has increased during the commitment period. For the time being, it seems that the latter solution is the best one of the two solutions mentioned.

2. Need for country-specific data and information

The IPCC Special report on Land Use, Land Use Change and Forestry will be finalised in May 2000. We would like to emphasise the importance of country-specific information being available at that stage, since the availability of both the report and country data will facilitate the consideration of policy and procedural issues at COP 6. We do for the time being find it difficult to specify what type of data and information the Parties should provide. With reference to the conclusions by the chairman at SBSTA10 on the future work on Land Use, Land Use Change and Forestry issues, Norway is prepared to provide the required data and information before SBSTA 12. Agreement on the type of data and information to be provided for concideration at SBSTA12 should be sought by SBSTA11/COP5.

PAPER NO. 6: SWITZERLAND

METHODOLOGICAL ISSUES RELATED TO LAND-USE, LAND-USE CHANGE AND FORESTRY FOR CONSIDERATION BY THE SBSTA AT ITS ELEVENTH SESSION

In response to the call for comments at the tenth session of the SBSTA concerning Tables 1 and 2 of document FCCC/SBSTA/1999/5, Switzerland presents the following views:

1. We consider sound scientific knowledge as a prerequisite for methodological decisions in Land-Use, Land-Use Change and Forestry. For this reason, decisions should not be taken before the IPCC Special report has been completed and can be considered by SBSTA. Furthermore, emissions and sinks should be treated consistently.

2. Definitions and rules should be consistent with the goals and framework set forth in the Convention and in the Kyoto Protocol. They should not counteract or discriminate against certain measures provided in the Convention or the Kyoto Protocol. According to Article 4.2 (a) of the Convention, Parties shall adopt national policies and take corresponding measures to mitigate climate change, by limiting their anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. Article 2.1 of the Kyoto Protocol also calls on parties to develop and implement policies in different sectors. In the framework of such policies, a consistent approach for measures limiting anthropogenic emissions and measures enhancing greenhouse gas sinks and reservoirs is needed.

3. Concerning the question of how boundaries between direct human-induced activities and natural phenomena or indirect effects should be determined, our view is that they should be consistent with Article 4.2 of the Convention and with Article 2.1 of the Kyoto Protocol. Measures taken in the framework of national policies to reduce *emissions* will immediately contribute to achieving a Party's quantified emissions limitation. On the other hand, it could happen that some measures enhancing *sinks* would not be given credit if they were not on the list of accepted activities under Article 3.4 of the Kyoto Protocol. In our view we should encourage Parties to develop comprehensive national policies integrating measures in all sectors. Both types of activities should be treated equally: those allowing reduction of emissions as well as those allowing sequestration by sinks. Measures in the sink sector should not be discriminated against.

4. Activities and measures listed in national policies before the beginning of the commitment period could be a basis for the delimitation between human and natural as well as between direct and indirect. We think that a national policy should support sustainable development according to Article 3 of the Convention and Article 2 of the Kyoto Protocol. It should be based on sound scientific knowledge and give estimates of effects on sinks and sources and how they shall be monitored and verified. Sinks not included in a Party's policy by the beginning of the commitment period should not be accepted as direct human-induced. National policies should demonstrate that the effects are additional to any that would otherwise have occurred. This could be verified in two ways: (a) the

flows of CO_2 during the commitment period can be compared with the flows of the base year 1990 or (b) a *change in increase* of a C-pool since 1990 can be assessed. This implies that the increase in the year 1990 is known. In the case that neither the pool nor the flows of the year 1990 can be assessed, it might be necessary to define another base year for which reliable data are available.

5. Decisions on additional activities should take both sources and sinks into consideration. The list of accepted additional activities should be based on sound scientific knowledge and determined before the beginning of the commitment period. Activities that decrease reservoirs might not be part of a defined national policy but should be included as potential emission sources. An approach that can be applied consistently across all LULUCF activities could minimise problems and prevent crediting sinks which may be offset by such sources that would otherwise not be recorded.

6. We consider the following, inter alia, as open issues that need clarification in the forthcoming discussions:

- Review of national policies in the context of Articles 8 and 5 of the Kyoto Protocol.
- Inclusion and assessment of other greenhouse gases such as CH_4 or N_2O in the framework of additional activities.
- Assessment of activities in national policies that cause emissions rather than removals of greenhouse gases.

PAPER NO. 7: UNITED STATES OF AMERICA

LAND USE, LAND USE CHANGE AND FORESTRY (LULUCF) SUBMISSION

Introduction

At its 10th meeting, the Subsidiary Body for Scientific and Technological Advice invited Parties to review, and where possible to respond to, the questions posed in tables 1 and 2 of document FCCC/SBSTA/1999/5, and to identify any additional policy or procedural questions. It addition, it requested Parties to provide submissions on the need for country-specific data and information and its relationship to a decision-making framework in the context of the requirements of the Kyoto Protocol. We have combined the two SBSTA 10 requests into one submission that focuses on decision-making criteria, a decision-making structure, and data and information needs.

The U.S. strongly believes that the treatment of land use and land management under the Kyoto Protocol should be broadened by adding activities under Article 3.4. We have elaborated that position and our reasoning behind it in previous submissions. Our focus here is on the process by which we believe activities should be considered and approved for inclusion in inventories. The FCCC and the Kyoto Protocol offer the following principles that should guide decisions under Article 3.4. Actions should:

- Be cost-effective and comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases;
- Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks;
- Promote sustainable agriculture in light of climate change considerations;

The COP's and later COP/MOP's decisions with regard to new categories under Article 3.4 must first and foremost be concerned with environmental protection. We must take the long-term view of how best to promote action with respect to sinks. Thus, we suggest that there needs to be a two step process. First, the Parties need to determine, on the basis of relevant inputs (including those from the IPCC) which additional activity categories meet the criteria set forth in Article 3.4. Second, the Parties should decide how these additional categories can or should be made applicable to the first commitment period.

Decision-Making Framework

The U.S. looks forward to engaging in substantive discussions on land use and land management issues within the context of the Kyoto Protocol at SBSTA 11 and over the next year. The U.S. recognizes that Parties may be considering candidate activities or categories, but the Parties have not yet established a process for considering those activities or guidelines to assess proposed activities. Considering the complexity associated with land use issues, the Parties need to lay out a structure for decision-making between SBSTA 11 and COP-6, discuss the criteria for decision making, and the role of data and information within that framework.

Criteria

The main criteria for adopting additional activities are already stated in Article 3.4 of the Kyoto Protocol. Parties are asked to consider additional human induced activities taking into account uncertainties, transparency in reporting, verifiability, and methodological work of the IPCC. In determining how these terms will be interpreted and measured, we should use the reporting requirements for other sources of greenhouse gases covered by the Kyoto Protocol as a guide. We should not hold additional land use activities to a higher standard of measurability and verifiability than other sources of greenhouse gases that are already included under the Protocol. Activity definitions should account for both sequestration and emissions – gains and losses. The U.S. believes activities should be defined broadly in order to promote consistent incentives and provide opportunities to reduce net greenhouse gas emissions.

The role of data and information

Two types of data and information are needed to fulfill these criteria and meet Kyoto commitments. First, Parties will need data and information to demonstrate that an activity meets the agreed criteria, and second, Parties will need data and information for reporting changes in carbon stocks associated with these activities during the relevant commitment period. In our view, Parties do not need data and information on expected changes in carbon stocks that would occur during the second budget period in order to make decisions about which activities to consider for inclusion in the Kyoto Protocol. Parties need to demonstrate that activities meet the criteria established by the Parties and be able to report on those activities – using approved reporting guidelines and meeting the approved criteria – as required under the Kyoto Protocol.

For example, for an activity to meet the criterion "transparency in reporting," Parties will need to demonstrate that they have adequately described how data are collected and fully articulate how the data are used to compute carbon emissions or sequestration. Under the criterion of "verifiability," Parties will need to demonstrate that the measurements of greenhouse gas emissions and removals associated with an Article 3.4 activity are based on scientifically supportable methods which can be corroborated. Demonstration could take the form of peer-reviewed scientific articles about measurement procedures and publication and documentation of data. If the activity is then added to or subtracted from a Party's assigned amount, the Party will need the necessary data and information to report the calculated amount during the budget period to meet commitments and report stocks in the annual inventories.

Parties should be required to meet the criteria and measure changes in carbon stocks no later than the budget period in which the activities apply. Allowing Parties the opportunity to meet this requirement through the budget period will provide an incentive for future scientific advances that will enhance our ability to reduce net greenhouse gas emissions. Decisions on new activities should not be based solely on first generation accounting and measurement methods without allowing for future scientific advances. Doing so effectively limits the ability of Parties to take action to reduce net greenhouse gas emissions.

Parties can and should draw from multiple data sources, including primary data such as inventories, and experimental data, and process models, and large-scale ecosystem models to support decision-making. Data and information can take the form of raw data, aggregated data, model documentation, and estimates across any number of spatial and time scales, and across several different carbon pools. We should recognize that initial data and information will not be uniform or consistent across countries. The IPCC has not yet addressed the question of how countries should report "new activities" and that countries have not necessarily collected the information needed in a systematic and consistent way.

Parties should make the necessary country-specific data and information available to support decision making in these negotiations. The U.S. is currently conducting several analyses to more fully understand carbon in agricultural and forestry systems that will help guide our decision-making and improve our ability to measure and report changes in carbon stocks associated with these systems. Projects include:

- Estimating of changes in agricultural soil carbon stocks for the annual U.S. greenhouse gas inventory (which will complete the U.S. annual inventory);
- Improving our measurement of total forest carbon stocks and fluxes using the most recent 1997 forest inventory statistics (which will improve and update the U.S. annual inventory);
- Conducting basic research on carbon in rangelands, croplands, and forested land to improve inventories and carbon models (which will provide scientific soundness of reporting and measurement conventions to meet transparency and verifiability criteria).

Each of these efforts will undergo thorough peer review and the results will be made publicly available. We encourage other countries to provide their country specific data and other relevant information. The U.S. is concerned about the current provision of inventory data by the Parties. It is important for all Parties to provide complete reports; fill in gaps in those reports provided to date; address questions on the IPCC methodologies; and work together to improve the quality and accuracy of the inventories. The United States continues to develop and estimate for CO_2 emissions and removals from soils due to agriculture. We anticipate having an estimate in our next inventory, thus making the U.S. inventory complete and comprehensive.

We recognize the important role of the IPCC in providing scientific and technical guidance to the decision-making process. The IPCC has been requested to accomplish two fundamental tasks. The first task is to provide technical information to aid the Parties through the Special Report. The second task is to develop a work plan addressing methodological issues raised in the IPCC Special Report in the context of the IPCC 1996 Revised Guidelines for National Greenhouse Gas inventories in the areas of agriculture and land use change and forestry.

We are encouraged by the progress of the IPCC on the Special Report and the valuable interaction with the IPCC as evidenced by the IPCC involvement in the two recent SBSTA workshops. The U.S. looks forward to the two upcoming events agreed to at SBSTA-10, and to working constructively through the Government review process to assist the IPCC in the

preparation of the final IPCC Special Report. This document will help guide our decisions, such as on how to characterize and measure activities. We recognize, however, that the Special Report may not answer all questions and will likely point out a need for further research.

Time line for decision making
The U.S. believes the Parties should be in a position at COP-6 to take decisions on new activities under Article 3.4, based on the work to be done over the next year. To facilitate this, we should agree at the next SBSTA meeting on a timeline similar to the schematic developed by SBSTA at its 10th session.

COP-5
- progress report from the IPCC;
- side event on the draft report;
- discussions on how to use data and information to support the decision making framework and request that Parties provide such data and information;
- discussions on how to operationalize Article 3.4 activities;
- plans for July 2000 workshop.

SBSTA-12
- discussion of IPCC Special Report;
- discussion of data and information that supports decision making;
- discussion of COP-6 decision.

Land Use Workshop (Special Session of SBSTA):
- evaluation of Special Report in context of COP-6 decision;
- discussion of specific views and recommendations from Parties;
- evaluation of data and information;
- adoption of additional activities under Article 3.4.

COP-6
- recommend decision of additional activities under Article 3.4

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