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SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE
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Item 5 of the provisional agenda
Reducing emissions from deforestation in developing countries: approaches to stimulate action

Views on outstanding methodological issues related to policy approaches and positive incentives to reduce emissions from deforestation and forest degradation in developing countries

Submissions from Parties

1. The Conference of the Parties, by its decision 2/CP.13, requested the Subsidiary Body for Scientific and Technological Advice (SBSTA) to undertake a programme of work on methodological issues related to a range of policy approaches and positive incentives for reducing emissions from deforestation and forest degradation in developing countries.

2. As part of this programme of work, Parties were invited to submit to the secretariat, by 21 March 2008, their views on how to address outstanding methodological issues including, inter alia, assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions; incremental changes due to sustainable management of the forest; demonstration of reductions in emissions from deforestation, including reference emission levels; estimation and demonstration of reductions in emissions from forest degradation; implications of national and subnational approaches, including displacement of emissions; options for assessing the effectiveness of actions in relation to paragraphs 1, 2, 3 and 5 of decision 2/CP.13 and criteria for evaluating actions. The SBSTA requested the secretariat to compile these submissions for its consideration at its twenty-eighth session.

3. The secretariat has received 14 such submissions. In accordance with the procedure for miscellaneous documents, these submissions are attached and reproduced[*] in the language in which they were received and without formal editing.

[*] These submissions have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

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* This submission is supported by Bosnia and Herzegovina, Croatia, Serbia and Turkey.

PAPER NO. 1: CANADA

[ENGLISH AND FRENCH]

Views on how to address outstanding methodological issues related to Reducing Emissions from Deforestation in Developing Countries

SUBMISSION BY CANADA

Introduction

Canada is pleased to provide the following submission on outstanding methodological issues related to a range of policy approaches and positive incentives that aim to reduce emissions from deforestation and forest degradation in developing countries (REDD). Canada looks forward to participating in constructive discussions by the SBSTA on all outstanding issues related to the development of policy approaches or incentives for REDD.

Key elements of the methodological programme of work

In undertaking the programme of work on methodological issues related to a range of policy approaches and positive incentives for REDD, as agreed in Decision 2/CP.13, the SBSTA will need to focus on the methodological issues that pertain to the rules needed for an effective REDD accounting and reporting framework. Equally important is the development of methodological guidance on how Parties can meet the requirements of such a system. Both elements will be required for the successful functioning of a REDD incentive mechanism, however the latter would be best addressed by the Intergovernmental Panel on Climate Change (IPCC).

IPCC guidance

As stated in paragraph 6 of Decision 2/CP.13, as the basis for reporting greenhouse gas emissions from deforestation under the Convention, Parties are encouraged to use the most recent reporting guidelines, including the application of the *Good Practice Guidance for Land Use, Land-Use Change and Forestry* (GPG-LULUCF, IPCC 2003). Under the Kyoto Protocol, the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (1997) and the GPG-LULUCF provide methodologies and guidance on how to meet the supplementary requirements under the Protocol.

These IPCC documents could be used as the foundation for a request from SBSTA to the IPCC to produce a report on methodological guidance for quantifying the reductions in emissions from avoided deforestation and reduced forest degradation in developing countries. The IPCC would be asked to provide guidance on methodologies for the assessment of changes in forest cover and associated carbon stocks and greenhouse gas emissions, and incremental changes due to sustainable forest management. In the same way that the GPG-LULUCF will be used as the basis for expert reviews of national estimates for Kyoto Protocol accounting, similar guidance provided by the IPCC will be needed as the basis for consistent and transparent reviews of estimates used in accounting within a REDD incentive mechanism.

Canada recognizes the contribution of the REDD working group of “Global Observation of Forest and Land Cover Dynamics” (GOFC-GOLD), a technical panel of the Global Terrestrial Observing System (GTOS), in the on-going development of a Sourcebook of Methods and Procedures for Monitoring, Measurement and Reporting on REDD. A request from SBSTA to the IPCC for methodological guidance for REDD should include a recommendation that the IPCC consider the work carried out by GOFC-GOLD.

Reference emissions levels

A reference emissions level, or baseline, is a critical element in quantifying the reduction in emissions from avoided deforestation or reduced forest degradation. For afforestation and reforestation projects in the Clean Development Mechanism (CDM) the baseline represents what would have occurred in the absence of the project activity (Decisions 5/CMP.1 and 19/CP.9). The indicative guidance provided in the Annex to Decision 2/CP.13 states, in paragraph 6, states that reductions in emissions or increases resulting from a demonstration activity should be based on historical emissions, taking into account national circumstances. Canada interprets this guidance as a methodological approach for determining the emissions from deforestation that would have occurred in the absence of REDD activities.

If a validated reference emissions level is a prerequisite for participation in a REDD incentive mechanism, further guidance will be necessary to facilitate the task of an expert review team or decision-making body under the UNFCCC. In effect, informed by the experiences of Parties and organizations involved in REDD demonstration activities, SBSTA will need to identify factors (for example, relevant national circumstances) that must be considered in the determination of reference emissions levels.

Forest Degradation

It is broadly acknowledged that the methodological requirements for detecting forest degradation and estimating the associated changes in carbon stocks with a useful degree of certainty is a significant challenge for many developing countries. While this challenge can be met, and many efforts are underway to address it, Canada believes that the inability to meet methodological requirements related to forest degradation should not result in the complete exclusion of a Party from an incentive to reduce emissions from deforestation, provided that the said party meets the methodological requirements related to deforestation.

Ottawa, Canada
April 2008

[ANGLAIS ET FRANÇAIS]

Points de vue sur la façon d'aborder les questions méthodologiques en suspens qui concernent la réduction des émissions liées au déboisement dans les pays en développement

SOUMISSION DU CANADA

Introduction

Le Canada est heureux de présenter la soumission suivante portant sur les questions méthodologiques en suspens liées à un éventail d'approches politiques et de mesures incitatives qui visent la réduction des émissions issues du déboisement et du dépérissement des forêts (REDD) dans les pays en développement. Le Canada se réjouit à l'idée de participer aux discussions constructives menées par l'Organe subsidiaire chargé de fournir des avis scientifiques et technologiques (SBSTA) qui traiteront de toutes les questions en suspens liées à l'élaboration d'approches politiques et de mesures incitatives visant la REDD.

Principaux éléments du programme de travail méthodologique

En entreprenant le programme de travail sur les questions méthodologiques liées à un éventail d'approches politiques et de mesures incitatives visant la REDD, tel qu'il a été convenu dans la décision 2/CP.13, le SBSTA devra se concentrer sur les questions méthodologiques qui se rapportent aux règlements nécessaires en vue d'élaborer un cadre efficace pour la comptabilisation et la déclaration de la REDD. L'élaboration d'une orientation méthodologique sur la façon dont les parties pourront satisfaire aux exigences d'un tel système est également importante. Ces deux éléments seront essentiels pour assurer une utilisation réussie des incitatifs relatifs à la REDD. Toutefois, ce dernier point serait confié au Groupe d'experts intergouvernemental sur l'évolution du climat (GIEC) qui saurait mieux l'aborder.

Orientation du GIEC

Tel qu'il est énoncé dans le paragraphe 6 de la décision 2/CP.13, à titre de fondement de la déclaration sur les émissions de gaz à effet de serre (GES) issus du déboisement en vertu de la Convention, on encourage les parties à suivre les lignes directrices les plus récentes, notamment à appliquer les recommandations contenues dans le *Good Practice Guidance for Land Use, Land-Use Change and Forestry* (GPG-LULUCF, GIEC 2003). Les lignes directrices du GIEC pour les inventaires nationaux de gaz à effet de serre - version révisée de 1996 et le GPG-LULUCF fournissent des méthodes et une orientation sur la façon de satisfaire aux exigences supplémentaires en vertu du Protocole de Kyoto.

Ces documents du GIEC pourraient servir de fondement dans la rédaction d'une demande présentée par le SBSTA au GIEC en vue de produire un rapport sur l'orientation méthodologique visant à quantifier la réduction des émissions en évitant le déboisement et en réduisant le dépérissement des forêts dans les pays en développement. On demanderait au GIEC de fournir une orientation sur les méthodologies nécessaires à l'évaluation des changements liés à la couverture forestière, aux stocks de carbone connexes et aux émissions de gaz à effet de serre et des changements cumulatifs découlant de la gestion durable des forêts. De la même façon qu'on utilisera le GPG-LULUCF à titre de fondement relativement aux estimations nationales évaluées par les experts en vue de la comptabilisation du Protocole de Kyoto, une orientation semblable, fournie par le GIEC, sera nécessaire à titre de fondement dans le cadre d'examens cohérents et transparents des estimations utilisées dans la comptabilisation qui s'appliquera aux incitatifs relatifs à la REDD.

Le Canada reconnaît la contribution du groupe de travail sur le programme Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD) (programme d'observation mondiale des dynamiques de couverture forestière et terrestre) de la REDD, un panel technique du Système global d'observation terrestre (GTOS), dans l'élaboration continue d'un [(Guide d'information sur les procédures à suivre en matière de surveillance, de comptabilisation et de déclaration)] sur la REDD. La demande relative à l'orientation méthodologique sur la REDD présentée par le SBSTA au GIEC devrait comprendre une recommandation voulant que le GIEC tienne compte du travail effectué dans le cadre du programme GOFC-GOLD.

Niveau de référence des émissions

Un niveau de référence des émissions, ou niveau de base, est un élément vital dans la quantification de la réduction des émissions en évitant le déboisement et en réduisant le dépérissement des forêts. Dans le cadre de projets de boisement et de reboisement compris dans le mécanisme de développement propre (MDP), le niveau de base représente ce qui se serait produit en l'absence de cette activité de projet (décisions 5/CMP.1 et 19/CP.9). Les directions discriminantes, comprises dans l'annexe de la décision 2/CP.13, au paragraphe 6 indiquent que les taux de réduction ou d'augmentation d'émissions résultant d'une activité de démonstration devraient être fondés sur les émissions historiques, tenant compte des circonstances à l'échelle nationale. Le Canada interprète cette orientation comme étant une approche méthodologique visant à établir le niveau qu'auraient atteint les émissions liées au déboisement, en l'absence des activités entreprises dans le cadre de la REDD.

Si un niveau de référence des émissions validé sert de pré-requis aux fins d'incitatifs relatifs à la REDD, il sera nécessaire de fournir de nouveaux conseils afin de faciliter le travail d'une équipe d'examen composée d'experts ou d'un organisme décisionnaire régi par la Convention-cadre des Nations Unies sur les changements climatiques (CCNUCC). En fait, d'après l'expérience des parties et des organisations engagés dans les activités de démonstration dans le cadre de la REDD, le SBSTA devra déterminer les facteurs (par exemple, les circonstances pertinentes à l'échelle nationale) qui devront être examinés en vue de l'établissement des niveaux de références des émissions.

Dépérissement des forêts

Il est largement reconnu que les exigences méthodologiques servant à mesurer le dépérissement des forêts et a évaluer les changements connexes au niveau des stocks de carbone, tout en conservant une certaine mesure d'exactitude, est un défi important pour bon nombre de pays en développement. Bien que ce défi puisse être relevé, et que de nombreux efforts soient déployés pour y parvenir, le Canada croit que l'incapacité de satisfaire aux exigences méthodologiques liées au dépérissement des forêts ne devrait pas contribuer à exclure complètement une partie d'une mesure incitative touchant la réduction d'émissions issues du déboisement, pourvu que la partie mentionnée satisfait aux exigences méthodologiques liés à la déforestation.

Ottawa, Canada
Avril 2008

PAPER NO. 2: COLOMBIA

Submission of Colombia

Reducing Emission from Deforestation: Consideration of Relevant Methodological Issues

Introduction

The Conference of the Parties (COP), at its 13th session, requested the Subsidiary Body for Scientific and Technological Advice (SBSTA) to undertake a program of work on methodological issues related to a range of policy approaches and positive incentives that aim to reduce emissions from deforestation and forest degradation in developing countries, and invited Parties to submit their views on how to address outstanding methodological issues including, *inter alia*:

- Assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions,
- Incremental changes due to sustainable management of the forest,
- Demonstration of reductions in emissions from deforestation, including reference emissions levels,
- Estimation and demonstration of reduction in emissions from forest degradation,
- Implications of national and sub-national approaches including displacement of emissions.

Moreover, Parties are invited to provide views and criteria for evaluating the effectiveness of actions to:

- Further strengthen ongoing efforts on a voluntary basis;
- Support capacity building, provide technical assistance facilitate the transfer of technology to improve, *inter alia*, data collection, estimation of emissions from deforestation and degradation, monitoring and reporting and address the institutional needs of developing countries to estimate and reduce emissions from deforestation and forest degradation;
- Explore a range of actions, identify options and undertake efforts, including demonstration activities, to address the drivers of deforestation relevant to their national circumstances with a view to reducing emissions from deforestation and forest degradation and thus enhancing forest carbon stocks due to sustainable management of forests.

Colombia welcomes this opportunity to contribute to the SBSTA work program on methodological issues related to REDD and look forward to a constructive exchange of views with other Parties leading to a successful outcome by COP14.

I. Introduction

As we have seen during more than two years in which we have been involved in the discussion about REDD and a future mechanism to accommodate this important activity within the UNFCCC, real reductions in this area will require a level of capacities

and resources that many developing countries lack. We believe that discussion on the financial mechanism that will power the future REDD mechanism is not only urgent but imperative for the negotiations on this agenda item to move forward.

Colombia reiterates its belief that the only source of sufficient and long-term financing is a market mechanism in which all developing nations are able to participate. We also point out the need for financing for capacity building and up-front financing of activities in non-Annex I parties, which should be based on the principle of common but differentiated responsibilities.

In addition, we would like the negotiations to focus, as originally intended, on actions to reduce emissions from deforestation and forest degradation. Other issues of the highest importance for Colombia, like conservation, should be considered primarily in discussions about adaptation.

II. Views on how to address outstanding methodological issues

Although we recognize the high value of technology that could be used for REDD such as remote sensing analysis, we would like to point out that relying heavily on these tools brings problems such as limiting the number of parties due to its cost and lack of installed capacity and countries with abundant cloud cover over forested areas. We also recommend that there always be ground-proofing of remotely sensed data.

- Furthermore, we share the view of several Latin-American countries that

1- "the carbon stocks of different ecosystems around the world are poorly known and this aspect lags behind remote sensing. Carbon inventory methods and tools require high investment for broad-scale national inventories. When emissions from deforestation represent a key category, the IPCC guidelines for GHG national inventories recommend the use of Tier 2 or 3. Deforestation is almost always a key category for developing countries. Thus a great effort needs to be undertaken to allow countries to develop ecosystem-specific equations and/or models rather than using default values.

2- the lack of data on both, changes in forest cover and, more critically, changes in carbon stocks often hampered reliable and transparent emissions' estimates. And

3- that scientific research indicates that national level estimates of emissions are plagued with very large uncertainties. Estimates would be much more precise at the project scale where sampling efforts could be more thorough."

III. Views on incremental changes due to sustainable management of the forest

In view of the inclusion of three new concepts in Decision 2/CP13: a) sustainable management of forests, b) enhancement of carbon stocks and c) forest conservation, we believe that:

a) The term "sustainable management of forests" compromises not only activities to avoid deforestation, but also to use resources included in that type of

ecosystems wisely. Specific activities within this concept should be determined to examine their potential to REDD. Sustainable management of forests is not necessarily equal carbon-maximizing processes, and practices that could potentially be related to REDD should be applied with sustainability and carbon stocks in mind.

b) Although we acknowledge that the enhancement of carbon stocks captures carbon rather than avoiding it's emission to the atmosphere, we encourage the development of methodologies that include both.
c) Colombia considers forest conservation as a national priority, and acknowledges that REDD activities will evidently result in conservation of forests. Nevertheless, we do not consider that the activity of forest conservation in itself reduces emissions from deforestation.

In general, we see the need for discussion to begin on what will be considered as forest, deforestation, degradation, conservation and sustainable forest management for the future REDD mechanism, and suggest it be an agenda item for the Tokyo workshop on REDD.

III. Views on the demonstration of reductions in emissions from deforestation, including reference emissions levels

As stated in previous submissions, Colombia believes that each party should be able to choose the level of activities that they see fit to reduce deforestation emissions, from sub-national to national. In any case, reference levels and verification schemes are required.

For this purpose, UNFCCC should approve or elaborate methodologies for sub-national activities, that may be prepared using a top-down approach and consist of several "compartments" or parts that may be used depending on applicability conditions, i.e. including degradation or not.

There are existing approaches to estimate baseline emissions, of which we consider; i) extrapolation of past trends into the future, ii) prevailing technology or practice, and iii) logical arguments made by activity participants based on observed trends, to be adequate. Tradable and fully fungible emission reduction credits should be issued against the aforementioned reference levels.

With regards to verification, each activity should have their reference emissions, actual emission reduction and leakage verified by an independent and accredited body, this capacity already exists.

IV. Views on estimation and demonstration of reduction in emissions from forest degradation.

As stated on previous occasions, we support the inclusion of degradation in REDD. We believe that each activity should decide whether it is cost effective to include the measurement and accreditation of degradation or not.

As there is very little work done on methodologies to measure and account for carbon lost due to forest degradation, we suggest that such methodologies be developed by the UNFCCC as one of the “compartments” mentioned above.

Such methodologies could be developed by defining classes of degraded forests. Each, category should be based on percentage of biomass remaining in comparison with intact forest of the same type.

Such data could be defined using direct approaches such as inventories or indirect ones such as canopy openness.

V. Views on the implications of national and sub-national approaches including displacement of emissions

As expressed in previous occasions, we believe that a sub-national option would ensure the participation of all developing countries. A national-or-nothing approach would, on the other hand, exclude or significantly difficult the participation of countries with less than optimal institutional and technical capacities, financing capabilities for up-front needs of their RED activities, or deforestation drivers that are difficult to control in the short term. Furthermore, it would determine the involvement of the private sector, and could pose a problem with the extent of voluntary participation of indigenous communities, as representatives from both sectors have expressed.

Displacement of Emissions

Taking into account, that displacement of emissions or leakage from localized REDD activities is a significant concern, we examine the issue at a variety of scales as well as propose solutions or ways to manage this issue.

First, we would like to clarify that although it has been stated many times, that a national scale of RED activities would eliminate the risk of leakage, we strongly disagree with this statement. In a national accounting system, sub-national activities **would** take place (as proposed by several parties), and these activities are also prone to producing leakage. The difference with the sub-national proposal is that a) the leakage will be accounted for nationally but b) the host country will still have the issue of displacement of deforestation activities to contend with.

It is our view, that the issue of leakage can be addressed in the following manner:

> Methodological solution for leakage: displacement of emissions could be determined using an approved methodology and the amount of displacement of emissions detected should be deducted from the project credits, thus creating a disincentive to displace deforestation elsewhere. The methodology would require a “leakage belt”, or area around the project that will be monitored for deforestation using satellite imagery or ground techniques. The width of this monitoring area would be correlated to the main deforestation driver(s) in the area including a socioeconomic study of the driver(s) and communities involved.

VI. Views and criteria for evaluating the effectiveness of actions to inter alia, strengthen ongoing efforts, support capacity building and explore demonstration actions

Support from Annex I countries is absolutely necessary to enhance developing nations' capacities to address RED.

We support the proposal from several Latin-American countries: "that Annex I parties should submit annual reports to the COP as of its 14th session. These reports should be posted on the REDD web platform requested by Decision 2/CP13.

Such reports should provide information on the following:

1. Specific actions supported during the year to further strengthen ongoing efforts;

2. Specific actions to support capacity building, provide technical assistance facilitate the transfer of technology to improve *inter alia*, data collection, estimation of emissions from deforestation and degradation, monitoring and reporting and address the institutional needs of developing countries to estimate and reduce emissions from deforestation and forest degradation, including data on how the support provided by the Annex I country will contribute to enhance the capacity of the developing country counterpart to scale up its efforts to REDD;

3. The actions, including demonstration activities, carried out cooperatively with developing countries, including, *inter alia*, data on:
    a. The number of demonstration activities supported;
    b. The amount of emissions reduced and expected to be reduced by each demonstration activity supported;
    c. The cost of the emissions reduced by such activities;
    d. How these activities improved or are expected to improve the capacities of the developing country counterparts;
    e. How, in the view of the Annex I country, these activities contribute to the broader sustainable development goals of developing country counterparts;
    f. How, as a whole, the activities supported by the Annex I country reflect an equitable treatment across approaches (national and sub national), activities (avoided deforestation, degradation and enhancement of carbon stocks), levels of capacity and geographical regions.

4. How the Annex I country is promoting the equitable participation of developing countries through the actions carried out through 1, 2 and 3 above.

Furthermore, the web platform could also serve as a window to highlight the progress of demonstration activities. Each demonstration activity should upload its PIN to provide a way of sharing methodological approaches and, on a voluntary basis, could provide an assessment of successes and difficulties encountered as the implementation takes place."

PAPER NO. 3: COSTA RICA

REDUCING EMISSIONS FROM DEFORESTATION IN DEVELOPING COUNTRIES: APPROACHES TO STIMULATE ACTION

SUBMISSION BY:

COSTA RICA

1. THE MANDATE

The 13th Conference of the Parties (COP-13) on the United Nations Framework Convention on Climate Change (UNFCCC), in its Decision 2/CP.13, invited Parties to submit to the Secretariat, by 21 March 2008, their views on outstanding methodological issues related to reducing emissions from deforestation and forest degradation in developing countries. Decision 2/CP.13 also requested the Secretariat to compile these views for consideration at the Subsidiary Body for Scientific and Technological Advice (SBSTA) at its Twenty-Eighth Session.

2. PREAMBLE

According to Decision 2/CP.13 and the Bali Action Plan Decision 1/CP.13, along with the ultimate objective of the Convention, a system of policy approaches and positive incentives to reduce carbon emissions from deforestation and forest degradation should be designed to address deforestation and degradation drivers relevant at national levels, and using methodological approaches that effectively reduce deforestation and forest degradation. Further, such system should not lead to perverse incentives that may increase deforestation or stop existing programs of forest sustainable management and conservation that are effectively reducing deforestation and forest degradation, and therefore, reducing carbon emissions.

The Stern Report shows that reducing deforestation and forest degradation has a cost for the countries, it also represents an opportunity cost to the land owners, and to the countries in general, costs that do not allow developing countries to reduce carbon emissions from land use, land use change and forestry sources. However, two environmental principles can be used to design a system of policy approaches and positive incentives to reduce deforestation and forest degradation in developing countries. They are the “polluters pay” and the “pay to service providers” principles. In fact the second is the mirror of the first one, and they complement each other when it is necessary to create a market based system to reduce deforestation and forest degradation. Experience generated by Costa Rica during the pilot phase of the Activities Implemented Jointly (AIJ) shows that market based mechanisms offer many advantages over traditional command and control approaches, including cost-effectiveness, and the provision of an additional and diversified income for rural development. In virtue of this, Costa Rica suggests to financially compensate emissions reductions stemming from the reduction of the deforestation in developing countries and, as a mean to facilitate significant non Annex Parties’ contribution to the ultimate objective of the Convention. Within this context, Non Annex Parties that voluntarily elect or have early elected as a national policy to reduce their emissions from deforestation, would be financially compensated by Annex I Parties on the basis of their

performance. The implementation of the proposed market based mechanism should be based on solid technical and methodological procedures, that allow to reduce the costs of operation of the mechanism once it is in place, while increasing effectiveness and reducing the possibility of creating perverse incentives that may, by the contrary, increase deforestation and forest degradation. The objective of this submission is to present the views of Costa Rica to address technical and methodological issues to reduce emissions from deforestation and forest degradation in developing countries, according to UNFCCC/Decision 2/CP.13 mandate, and taking into account the above mentioned guidelines.

~~3.~~3. GENERAL PRINCIPLES

~~3.1~~*3.1 Voluntary & Host Party Approval*

Developing countries´ efforts to reduce emissions from deforestation and forest degradation, to maintain and enhance forest carbon stocks due to sustainable forest management, must remain voluntary, and such countries alone will determine how to best implement specific measures toward this objective.

3.2 Consistent with Sustainable Development and Poverty Eradication

In keeping with Article 3 of the Convention, activities that may be undertaken in pursuit of the objective of reducing emissions from deforestation and forest degradation, maintaining and enhancing forest carbon stocks due to sustainable forest management should not limit legitimate rights of developing countries to achieve sustained socioeconomic growth and eradicate poverty as stated by the principles of UNFCCC.

3.3 Equitable and Fairness

Mechanisms and instruments designed to reduce emissions from deforestation and forest degradation, to maintain and enhance forest carbon stocks due to sustainable forest management, must ensure equitable and fair distribution of benefits both within and amongst participating developing countries, and under the principle of common but differentiated responsibilities, Annex I countries should enhance the mobilization of financial resources to this end.

3.4 Credit for Early Action

Decision 2/CP.13 paragraph 1, encouraged all Parties to further strengthen and support ongoing efforts to reduce emissions from deforestation and forest degradation on a voluntary basis. Further, Decision 1/CP.13 decided to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012. Within the context of these two Decisions, the Parties should support immediate and early actions of developing countries to reduce emissions from deforestation and forest degradation by ensuring that any emissions reductions obtained during the period from the year 1990 up to the commencement of any future international agreement on climate change can be used to assist in achieving future compliance; in order to avoid the creation of any perverse incentive that may deteriorate ongoing programs or planned efforts to reduce emissions from deforestation and forest degradation.

3.5 Solid technical and methodological procedures

Estimates of reductions or increases of emissions should be results based, demonstrable, transparent, and verifiable, and estimated consistently over time. The use of the Good Practice Guidance for LULUCF and independent expert review should be encouraged.

~~4.~~4. METHODOLOGICAL ISSUES

4.1 Assessment of changes in forest cover, carbon stocks and greenhouse gas emissions

To assess and report changes in forest cover and associated forest carbon stocks and greenhouse emissions, including those resulting from sustainable forest management, the most appropriate methodological procedures to ensure transparency, completeness and consistency of these estimates, are the IPCC. 2003 Good Practice Guidance for Land Use, Land Use Change, and Forestry (LULUCF), and/or the IPCC 2006 Guidelines.

However, the scientific community is already improving the IPCC methodological approaches, therefore we request the IPCC to evaluate further development of the above mentioned Guidance and Guidelines in order to meet the technical requirements of the expected mechanism and to guarantee their full applicability in the context of developing countries.

To address the uncertainties and the potential incompleteness of REDD estimates according to IPCC guidelines, and thus to increase their credibility, it is proposed that the **conservativeness criteria** be upgraded to a reporting principle to lower the probability of overestimating reduced emissions.

4.2 Reference emissions levels

Reference emission levels should be estimated once using historical data on changes in forest cover area, and IPCC procedures to estimate their associated carbon stocks and carbon stock changes. The changes in carbon stocks should be assessed in periods of at least 5 years. Those developing countries that have adopted early policy approaches and positive incentives, including forests conservation policies which have had an impact on deforestation rates should be permitted to adjust their reference emission levels to a date appropriate to national circumstances, in order to generate positive incentives necessary to further strengthen ongoing efforts to reduce emissions and maintain existing carbon stocks, while overcoming the deforestation risks derived of increasing land opportunity costs.

Reference emission levels should be calculated utilizing available data sources such as LANDSAT, SPOT, or ASTER to estimate forest cover areas changes. The use of the best spatial and spectral resolution remote sensing imagery available at any given time should be encouraged to determine forest cover area. Default values to estimate carbon stocks should be used only when there are not other data. Annex I countries should make available financial resources to fill the needs of developing countries to be able to prepare all data set to make the appropriate estimation of their own reference emissions levels. Increasing levels of confidence and precision of estimations would likely lead to higher costs, and therefore compensation mechanisms must fully recognize those costs.

4.3 Enhancing sinks due to sustainable management of the forest and the Role of Conservation

Forest carbon stocks enhancement generates real benefits for climate and should be considered as an eligible mitigation activity. Parties should recognize that sustainable management of forests is not only a tool to reduce emission from deforestation and forest degradation, but also a tool to maintain and even increase the amount of forest carbon stocks. On the other hand, Parties must recognize that forest conservation is a valid option of sustainable forest management, and that it is part of the solution to address emissions from deforestation and degradation and to preserve current forest carbon stock over the long term.

4.4 Estimation of reduction in emissions from forest degradation

Parties must recognize that in the context of assessing and reporting emissions due to forest degradation, there is no need to develop additional definitions and procedures, since IPCC guidelines to estimate carbon stocks and carbon stock changes in 'forest land remaining as forest land' section, is suitable to estimate reduction in emissions due to forest degradation.

4.6 Activities at the National of Sub-National Level

The implementation of activities at the national or sub-national level will be determined by each country on a voluntary basis, as their sovereign right, taking into account their specific national circumstances and requirements, however, sub-national approaches should constitute a step towards the development of national approaches. Reference levels and estimates should be calculated, in a way that the environmental integrity of the Convention is fully accomplished. In such cases, countries should consider measures and mechanisms to avoid leakage, including reserve accounts, and insurance mechanisms, among others.

4.7 Options for assessing effectiveness and criteria for actions

The effectiveness of the adopted activities to reduce emissions from deforestation and forest degradation should be assessed in terms of the amount of the emissions reductions obtained by the Host Country, in order to avoid any perverse incentive in the proposed mechanism. Additional issues that should be considered in the design of the new mechanism to reduce emissions from deforestation and degradation are:

- Annex I countries should report on their contributions to support capacity building, technical assistance, transfer of technology, and additional financing to support REDD activities in developing countries.

- Revenue streams must ensure to cover overall program design and implementation costs, which must be kept regularly over future decades to permanently overcome the existing drivers of deforestation in developing countries.

- Carbon emissions resulting from natural disasters, excluding natural and man-made forest fires, affecting forest areas should not be included in any REDD mechanism.

- An ex-ante payment system should be designed to favor the participation of all the developing countries. Since the initial costs of the implementation of measures to address deforestation and forest degradation are very high, they need to be able to access new and additional financial resources.

- On an annual basis, a proportion of the projected emission reductions could be kept in reserve. Each Party should calculate the proportion of emission reduction that must put in reserve, by assessing its delivery risks. These reserve units could be drawn from the reserve account during periods where emissions unpredictably increased, thereby providing continuity of funding to support ongoing emission reduction activities.

PAPER NO. 4: GABON ON BEHALF OF CAMEROON, CENTRAL AFRICAN REPUBLIC, CONGO, EQUATORIAL GUINEA, GABON AND DEMOCRATIC REPUBLIC OF THE CONGO

SOUMISSION DES PAYS DU BASSIN DU CONGO

Cette soumission est présentée par le Cameroun, le Congo, le Gabon, la Guinée Equatoriale, la République centrafricaine et la République Démocratique du Congo.

Libreville, le 20 mars 2008

Objet : Soumission des pays du Bassin du Congo (Cameroun, Congo, Gabon, Guinée Equatoriale, République Centrafricaine, République Démocratique du Congo), en rapport avec la Décision 2 /CP.13 portant sur les questions méthodologiques relatives aux « Approches en faveur de l'action » dans le REDD.

1- PREAMBULE

Cette soumission est présentée par les Pays du Bassin du Congo réunis au sein de la Commission des Forêts d'Afrique Centrale (COMIFAC), conformément à la Déclaration des Chefs d'Etat de 1999, dite « Déclaration de Yaoundé », relative à la conservation et à la gestion durable des écosystèmes forestiers d'Afrique Centrale. Cette déclaration a été soutenue par la signature et la ratification du Traité de la COMIFAC.

Dans ce traité, les Chefs d'Etat proclament très clairement leur intérêt à la mise en place par la communauté internationale d'un mécanisme de financement pour soutenir de manière durable les pays de la sous région dans leurs efforts de lutte contre la déforestation et la dégradation des forêts, d'aménagement durable, de conservation et de recherche sur les écosystèmes forestiers.

La COMIFAC regroupe 10 pays : Burundi, Cameroun, Congo, Gabon, Guinée Equatoriale, République Centrafricaine, République Démocratique du Congo, Rwanda, Sao Tomé et Principe et Tchad. L'Angola est actuellement membre observateur.

La COMIFAC est un organe créé par les Chefs d'Etat en vue de gérer de manière concertée les forêts du Bassin du Congo à travers une plate-forme commune dénommée « Plan de Convergence », qui comprend dix axes stratégiques. Le premier axe met un accent tout particulier sur les Conventions de Rio de Janeiro de 1992 dont la Convention Cadre des Nations Unies sur les Changements Climatiques (CCNUCC).

Le Partenariat pour les Forêts du Bassin du Congo (PFBC), lancé en 2002 lors du Sommet Mondial sur le Développement Durable de Johannesburg, regroupe 34 membres composés des pays du Bassin du Congo, des ONG internationales et des partenaires au développement (bilatéraux et multilatéraux).

Pour appuyer les pays de la COMIFAC, plusieurs membres du PFBC contribuent à la mise en œuvre du Plan de Convergence. Dans ce cadre, l'appui apporté à la COMIFAC vise à assurer une meilleure prise en compte de la forêt dans le régime post-2012, tel que réaffirmé par les chefs d'Etat durant le sommet spécial des Nations Unies sur les changements climatiques tenu à New York en septembre 2007.

La présente soumission portant sur « Approches en faveur de l'action » a été préparée pour répondre à la demande du Secrétariat de la convention dans sa décision 2/CP13, dans son article 7 (a). Elle a été élaborée lors d'un séminaire tenu à Paris, France, du 10 au 14 mars 2008. Elle intègre les spécificités des forêts d'Afrique Centrale, engagées dans un processus de gestion durable à travers l'aménagement forestier et les aires protégées.

Aussi, en vue de mener à bien ce mécanisme de mitigation, les pays du Bassin du Congo proposent la feuille de route suivante :

- **Mai 2008** : initiation par le SBSTA d'un projet de décision pour définir plus précisément les approches politiques et les incitations positives.
- **Avant septembre 2008** : le Secrétariat de la Convention devra fournir un canevas de présentation pour les projets pilotes, afin de faciliter la préparation des communications.
- **Décembre 2008** : le SBSTA29 devra s'accorder sur un projet de décision à adopter à la COP14.
- **D'ici à Décembre 2009** et la COP15 de Copenhague, les questions en suspens devront être résolues, afin de faciliter l'intégration des décisions dans un régime post-2012.

2- MANDAT

La Conférence des Parties (COP- 13) de la Convention Cadre des Nations Unies sur les Changements Climatiques (CCNUCC), a invité, dans sa décision 2/CP13, les Parties à soumettre au Secrétariat d'ici le 21 mars 2008, leurs avis portant sur les questions méthodologiques non résolues relatives aux Réductions des Emissions issues de la Déforestation dans les pays en développement. La COP 13 a également demandé au Secrétariat de compiler ces avis dans un document soumis l'examen du SBSTA lors de sa 28ème session.

3- INTRODUCTION

Dans le contexte de cette soumission, le terme déforestation désigne une disparition du couvert forestier avec changement d'usage des terres.

La dégradation de la forêt est entendue comme un processus dynamique qui conduit à une baisse progressive du stock de carbone par unité de surface pouvant aboutir sur le long terme à la déforestation

Les deux processus conduisent à des émissions de gaz à effet de serre (GES) relevant d'activités humaines.

Les causes de la déforestation sont multiples et complexes et diffèrent entre et au sein des pays et régions. Toutes mesures prises pour contrôler les émissions liées à la déforestation devront prendre en compte ces spécificités locales, nationales et régionales.

En dépit des nombreux efforts effectués pour lutter contre la déforestation dans les pays en développement, les expériences réussies sont peu nombreuses.

La vulnérabilité face au changement climatique exige des efforts supplémentaires pour diminuer effectivement les émissions liées à la déforestation. A cet effet, les pays en développement, particulièrement ceux d'Afrique Centrale, ont besoin de ressources financières nouvelles et additionnelles, d'assistance technique et de partenariats divers.

La dégradation est liée notamment à l'exploitation forestière à fort impact et/ou non maîtrisée qui ne s'inscrit pas dans un cadre de gestion durable, à la collecte de bois de feu, l'agriculture itinérante sur brûlis et certaines pratiques d'élevage. Elle constitue un phénomène important.

La gestion durable des forêts ne constitue pas pour les pays du bassin du Congo un facteur de dégradation mais au contraire une forme de préservation.

Dans le contexte des pays d'Afrique Centrale, la déforestation et la dégradation restent modestes comparée à d'autres régions du monde.

Les pays du bassin du Congo considèrent que les efforts réalisés sont bénéfiques pour le climat et revendiquent leur prise en compte dans le régime futur.

Les pays du bassin du Congo souhaitent également faire référence aux principes-clés énoncés dans leurs soumissions précédentes, à savoir :

- Bénéfices réels pour le climat,
- Responsabilité commune mais différenciée,
- Souveraineté des Etats et Développement Durable,
- Equité,
- Rapport coût efficacité,
- Ressources additionnelles,
- Actions rapides préservant l'intégrité des mécanismes existants.

4- Questions méthodologiques

4.1- Evaluation des changements de couvert forestier, des stocks de carbone et émissions de GES associées

Bien que perfectibles, certaines techniques et méthodes sont utilisables pour évaluer les changements de couvert forestier, les stocks de carbone et les émissions de GES associées. Des données existent mais doivent être complétées notamment dans la traduction des observations en termes d'émission. Globalement les synergies sont insuffisantes et les moyens techniques et humains doivent être renforcés.

Le guide des bonnes pratiques du GIEC sur les forêts, l'évaluation des facteurs d'émissions et les procédures de révision garantissent la qualité des données. Plus important encore, les méthodologies existantes permettent à tous les pays de participer dès maintenant en fonction de leurs spécificités et de leurs capacités nationales.

Cependant les pays du bassin du Congo souffrent d'un certain nombre de limitations techniques comme l'absence de station de réception de données satellitaires, le manque de capacités locales, le manque de références propres à la région dans les guides du GIEC.

Les pays du Bassin du Congo ont donc besoin de financements préalables pour se doter de ces équipements et réaliser des travaux complémentaires dans ces domaines. Afin de trouver des synergies régionales, un Observatoire pour les Forêts de l'Afrique Centrale est en cours de développement au sein des pays de la COMIFAC.

4.2 - Changements additionnels lies à la gestion durable des forêts

La mise en place d'aménagements durables permet de préserver les massifs et d'éviter ainsi les émissions qui découleraient de l'absence d'aménagement. Ces émissions évitées devraient être prises en compte. Par contre les émissions initiales liées à l'exploitation des concessions forestières aménagées durablement ne devraient pas être comptabilisées. Dans la même logique, une amélioration des aménagements forestiers peut conduire à des réductions d'émissions qui devraient également être comptabilisées et rémunérées.

De même l'augmentation des stocks de carbone de forêts en croissance liée à un aménagement durable devrait être aussi comptabilisée et rémunérée.

La définition des termes « forêts aménagées » et « aménagements forestiers durables » relève de la compétence des pays hôtes.

4.3 - Démonstration des réductions d'émissions issues de la déforestation et de la dégradation incluant les niveaux d'émission de référence

Les pays du bassin du Congo ont eu un comportement vertueux dans le passé qui explique aujourd'hui que dans cette région, les taux de déforestation sont faibles par rapport aux autres massifs forestiers des zones intertropicales.

A l'échelle nationale, des scénarii de référence uniquement basés sur des tendances historiques pénalisent fortement les pays du bassin du Congo. Ces niveaux de référence devront tenir compte des besoins de développement et des circonstances nationales, par exemple : l'évolution démographique, l'agriculture, l'autosuffisance alimentaire, le développement des infrastructures, les énergies renouvelables. Ces scénarii de référence pourraient être établis sur la base d'une concertation supra nationale (région du bassin du Congo par exemple).

A l'échelle sous nationale, les scénarii de référence tiendront compte des contextes et dynamiques locales selon des méthodologies robustes basées sur des principes agréés internationalement.

4.4 - Estimation et démonstration des réductions d'émissions issues de la Dégradation des forêts

La définition de la dégradation proposée par les lignes directrices du GIEC n'est pas encore consolidée. Cependant, les mesures de changements de stocks dans les forêts restant forets permettent de mesurer la dégradation. Comme indiqué précédemment, les émissions initiales liées à l'exploitation des concessions forestières aménagées durablement ne devraient pas être comptabilisées.

Le rapportage des émissions devrait être différencié de la comptabilisation afin de ne pas pénaliser le développement des aménagements durables.

4.5 - Implications des approches nationale ou sous nationale incluant le déplacement des émissions

Face à la diversité des circonstances nationales, il est important de garder de la souplesse et de la flexibilité dans le choix des approches et du niveau d'action pertinent à adopter. Les approches sous nationales et nationales sont compatibles et pertinentes dans les pays du bassin du Congo.

L'approche sous nationale permet d'acquérir de l'expérience nécessaire pour évoluer progressivement vers une approche nationale. Il ne faut cependant pas limiter l'approche sous nationale à la période 2008 – 2012.

4.6 - Options et critères pour évaluer l'efficacité

Ces options et critères d'évaluation varient en fonction des approches sous nationale et nationale, du contexte et des objectifs propres aux pays. Cette efficacité reposera à la fois sur une valorisation des expériences actuelles et des projets pilotes qui seront mis en œuvre et un renforcement des capacités et des transferts de technologie.

5. Option de marché pour le mécanisme REDD

La réduction des émissions résultant de la déforestation et de la dégradation nécessite des investissements lourds en termes de gestion durable des forêts et autres. A titre indicatif, le coût d'opportunité de la protection des forêts dans 8 pays responsables de 70% des émissions résultant des activités de changement d'usage du sol, est estimé par le rapport Stern entre 5 et 11 milliards de dollars par an.

Les efforts pour réduire les émissions résultant de la déforestation et de la dégradation dans les pays en développement ne pourront générer des bénéfices additionnels sur le climat que si une demande effective des pays de l'Annexe I, basée sur un mécanisme de marché de type « Cap and Trade » lié à des engagements des Pays du Nord existe réellement. Seul le mécanisme de marché de carbone peut générer des telles ressources et assurer la pérennité des financements via l'imposition de contraintes constantes des pays développés en termes de réduction de leurs émissions.

Le mécanisme financier à mettre en place doit permettre de générer des ressources prévisibles, stables et suffisantes.

6. Mécanismes de financement

Les Pays du bassin du Congo détiennent le deuxième massif forestier tropical dense et humide du monde. Ces forêts représentent une réserve de carbone d'importance mondiale pour la régulation du climat. A ce titre, les pays du bassin du Congo ont une responsabilité importante dans le régime climatique et font des efforts pour conserver et gérer durablement leurs forêts.

En conséquence, les pays du Bassin du Congo proposent la mise en place d'un mécanisme de financement rémunérant les stocks de carbone sur pied. Ce fonds doit être prédictible à long terme et alimenté par :

- une taxe sur les permis d'émission,
- des financements additionnels fournis par les pays de l'annexe 2,
- une taxe sur les produits et services à fort impact en carbone dans les pays annexe I,
- d'autres instruments financiers,

L'allocation de ce mécanisme financier pourrait être soumise à une clé de répartition bâtie, en plus des stocks de carbone, sur des critères tels que les surfaces aménagées et les surfaces protégées, qui reconnaissent les efforts notables dans la gestion durable des écosystèmes forestiers. Des systèmes de pondération sont envisageables pour privilégier certains des critères évoqués ci-dessus.

[TRANSLATION AS SUBMITTED]

SUBMISSION BY COUNTRIES OF THE CONGO BASIN

This submission is tendered by Cameroon, Central African Republic, Congo, Democratic Republic of Congo and Equatorial Guinea.

Libreville, 20 March 2008

Subject: Submission by countries of the Congo Basin (Cameroon, Central African Republic, Congo, Democratic Republic of Congo and Equatorial Guinea) relative to Decision 2/CP.13 on methodological issues in respect of REDD Approaches to Stimulate Action.

1- PREAMBLE

This submission is tendered by countries of the Congo Basin gathered under the Central African Forest Commission (COMIFAC), pursuant to the Declaration of Heads of State known as the Yaounde Declaration on conservation and sustainable management of Central African forest ecosystems. The declaration was crystallized by the signature and ratification of the COMIFAC Treaty.

Under the treaty, the Heads of State clearly voiced their interest to the establishment by the international community of a funding facility to back, in a sustainable fashion, efforts by countries of the sub-region to control deforestation and forest degradation, as well as foster sustainable management, conservation and research on forest ecosystems.

COMIFAC gathers 10 countries: Burundi, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of Congo, Equatorial Guinea, Gabon, Rwanda and Sao Tomé and Principe. Angola is currently an observer.

COMIFAC is a body established by Heads of State to ensure the collective management of the Congo Basin forests through a common platform dubbed the Convergence Plan, comprising ten strategic thrusts. The first thrust lays special emphasis on the 1992 Rio de Janeiro conventions including the United Nations Framework Convention on Climate Change (UNFCCC).
The Congo Basin Forest Partnership (CBFP), launched in 2002 during the Johannesburg World Summit on Sustainable Development, gathers 34 members including countries of the Congo Basin, international NGOs and development partners (bilateral and multilateral).

In a bid to support COMIFAC countries, several CBFP members contribute to the implementation of the Convergence Plan. In this regard, support lent to COMIFAC seeks to further mainstream forest in the post-2012 regime, as reaffirmed by Heads of State during the United Nations High Level Meeting on Climate Change held in New York in September 2007. This submission on Approaches to Stimulate Action is a response to the request by the Convention Secretariat in Article 7(a) of decision 2/CP13. It was drafted during a seminar held in Paris, France from 10 to 14 March 2008. It addresses the specificities of Central African forests that have embarked on sustainable forest management through management and protected areas. Furthermore, in order to ensure sound implementation of this mitigation tool, countries of the Congo Basin propose the following road map:

- ***May 2008****: drafting by SBSTA of decision to define more specifically policy approaches and positive incentives.*

- ***Before September 2008****: Convention Secretariat should provide a template for the pilot projects to ease the preparation of presentations.*

- ***December 2008****: SBSTA29 should agree on a draft decision for adoption during COP14.*

- ***By December 2009*** *and COP15 in Copenhagen, pending issues should be resolved to ease the incorporation of decisions in thepost-2012 regime.*

2- MANDATE

The Conference of Parties (COP- 13) of the United Nations Framework Convention on Climate Change (UNFCCC) in its decision 2/CP13 urged Parties to tender by 21 March 2008 to the Secretariat their views on outstanding methodological issues relative to Reducing Emissions from Deforestation in Developing countries. The COP 13 also called on the Secretariat to compile the views in a document to be submitted to the 28th session of SBSTA for consideration.

3- INTRODUCTION

For the purpose of this submission, deforestation refers to the depletion of forest cover resulting in land-use changes.
Forest degradation is construed as a dynamic process that causes gradual reduction of carbon stocks per surface unit that may result in deforestation over time. The two phenomena cause anthropogenic greenhouse gases emissions.
The causes of deforestation are multi-pronged and complex albeit different between and within countries and regions. All measures to check emissions from deforestation should take into account local, national and regional specificities.

Despite numerous efforts to control deforestation in developing countries, success stories are few and far between. Threats posed by climate change command further efforts to actually abate emissions from deforestation. Accordingly, developing countries, notably those from Central Africa, need fresh and additional funding, technical assistance and various partnerships. Degradation stems from wanton and/or unbridled forest exploitation which is inconsistent with sustainable management, collection of firewood, slash and burn farming and some breeding practices. It is a major phenomenon.

Sustainable forest management is not a factor of degradation in Congo Basin countries; it is a means of conservation.

In Central African countries, deforestation and degradation are mild compared to other regions of the world. Congo Basin countries contend that efforts have been beneficial for the climate and advocate their consideration in the upcoming regime.
Countries of the Congo Basin also seek to invoke the key principles outlined in their previous submissions, namely:
• real benefits for the climate,
• shared but specific responsibility,
• sovereignty of States and Sustainable Development,
• equity,
• cost effectiveness,
• top-up resources,
• swift actions to ensure the integrity of existing mechanisms.

4- Methodological issues

4.1- Assessment of changes in forest cover, associated carbon stocks and greenhouse gas emissions

Although there is room for improvement, some techniques and methods can be used to assess changes in forest cover, associated carbon stocks and greenhouse gas emissions. Data is available but need to be refined specifically in interpreting emission reports. Generally speaking, synergies are inadequate while technical and human capacities need a boost.
The IPCC Good Practice Guidance on Forestry, Evaluating Emission Factors and Review Procedures provides data quality assurance. What is more, existing methodologies enable all countries to sign up based on their specificities and national capacities.
However, countries of the Congo Basin are plagued by some technical shortcomings such as lack of stations to receive satellite data, lack of local capacities, lack of specific regional references in IPCC guidelines.

Congo Basin countries thus need prior funding to acquire appropriate equipment and conduct complementary studies in these areas. In an effort to build regional synergies, a Central African Forest Watchdog is under way in COMIFAC countries.

4.2 – Incremental changes due to sustainable forest management

The establishment of sustainable management schemes seeks to conserve forests and prevent emissions arising from lack of management schemes. Preventable emissions should be taken into account. However, initial emissions caused by exploitation of forest concessions under sustainable management are not expected to be factored in. In the same vein, improved forest management may help mitigate emissions which ought to be estimated and compensated.
Similarly, enhanced forest carbon stocks achieved through sustainable management should also be estimated and compensated.
The definition of the terms “managed forests” and “sustainable forest management schemes” is the prerogative of host countries.

4.3 – Demonstration of reductions in emissions from deforestation, including reference emissions levels

Congo Basin countries adopted positive practices in the past which accounts for the low deforestation levels in the region compared to other forests of intertropical zones.
At the national scale, reference scenarios based exclusively on historical data seriously undermine countries of the Congo Basin. These reference levels should mainstream development needs and national peculiarities such as: population growth, agriculture, food sufficiency, infrastructure development, renewable energy. These reference scenarios may be developed through supra national consultations (Congo Basin region for instance).
At the sub-national scale, benchmarks should take into account local contexts and dynamics relying on sound methodologies based on internationally agreed principles.

4.4 – Estimation and demonstration of reduction in emissions from forest degradation

The definition of degradation outlined in IPCC guidelines is still to be consolidated. However, levels of changes in forest stock are a yardstick for degradation. As mentioned previously, initial emissions arising from exploitation of forest concessions under sustainable management should not be calculated.
Reporting emissions should be distinguished from estimation in order to promote the development of sustainable management of forests.

4.5 - Implications of national or sub-national approaches including displacement of emissions

Given the diversity of national circumstances, it is essential to be flexible in selecting approaches and relevant action levels for consideration. Sub-national and national approaches are compatible and relevant in Congo Basin countries.
The sub-national approach helps to garner requisite experience to gradually glide toward a national approach. However, the sub-national approach should not be restricted to the period 2008 – 2012.

4.6 - Options and criteria for assessing effectiveness

Assessment options and criteria differ in respect of sub-national and national approaches, context and country objectives. Such effectiveness will hinge on showcasing current experiences and pilot projects awaiting implementation as well as capacity building and transfer of technology.

5. REDD Mechanism Market Option

Reducing emissions from deforestation and forest degradation requires huge investments in terms of sustainable forest management and others. By way of example, the opportunity cost of forest protection in the 8 countries accounting for 70% of emissions caused by changes in land use, is estimated by the Stern report at between USD 5 and 11 billion yearly.
Efforts to reduce emissions from deforestation and forest degradation in developing countries can generate additional benefits for the climate only after a request from Annex I countries, based on a Cap and Trade market mechanism, where genuine commitments of countries of the North exist. A carbon market mechanism alone can generate such resources and sustain funding by consistently imposing obligations on developed countries to reduce their emissions.
The expected funding facility should generate predictable, stable and adequate funds.

6. Funding facilities

Congo Basin countries are home to the second largest tropical dense and humid forest in the world. These forests constitute a carbon reserve of global importance in climate regulation. In this respect, countries of the Congo Basin hold a crucial responsibility in climate regulation and strive to conserve and manage their forests in a sustainable fashion.
Consequently, countries of the Congo Basin propose the establishment of a funding facility to compensate carbon stocks. The fund should have a long-term outlook and funded by:

- a tax on emission permits,
- top up funding provided by Annex 2 countries,
- a tax on carbon-intensive products and services in Annex I,
- other financial instruments.

Replenishment of the funding facility may be based on an allocation driving, in addition to carbon stocks, by criteria such as managed areas and protected areas, which recognize remarkable efforts in the sustainable management of forest ecosystems. Rating systems should be envisaged to prioritize some of the aforementioned criteria.

PAPER NO. 5: INDIA

Government of India Submission to UNFCCC on REDD

1. Background:

COP 13 has invited Parties to submit, by 21 March 2008, their views on "*how to address outstanding methodological issues including, inter alia, assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions, incremental changes due to sustainable management of the forest, demonstration of reductions in emissions from deforestation, including reference emissions levels, estimation and demonstration of reduction in emissions from forest degradation, implications of national and subnational approaches including displacement of emissions, options for assessing the*……" for consideration at the Subsidiary Body for Scientific and Technological Advice at its twenty-eighth session (SBSTA 28).

India submits its views as appended below on the outstanding methodological issues in so far as these relate to ***assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions, incremental changes due to sustainable management of the forest.***

2. Submission:

The Indian submission on the subject is as follows:

2.1 Policy Approach:

India favours a comprehensive REDD mechanism that encompasses all policy approaches that enhance forest carbon or save it. With aforesaid in focus, following two policy options emerge from the international negotiations and deliberations held so far.

1) Conservation, sustainable management of forest, and increase in forest cover
2) Reducing deforestation and degradation

2.2 Incentives:

India would seek positive incentives for enhancement of carbon stocks as well as for maintenance of baseline stocks as a consequence of following the policy option of "Conservation, sustainable management of forest, and increase in forest cover". Incentives are proposed to be claimed for the following positive outputs of forest carbon stocks.

1) Incremental carbon stocks
2) Baseline carbon stocks

2.3 Methodological Approach:

India would support a "Common Methodology" for i) assessment of baseline stocks, and assessments of changes in forest cover and associated carbon stocks and GHG emissions, incremental changes due to conservation and sustainable management of forest, and ii) assessment of reductions in emissions from deforestation and degradation. In essence, the "Common Methodology" would be insisted upon for covering both policy options given in para 2.1 above.

"Common Methodology" based on application of remote sensing, and minimum ground verification is proposed to be developed to cover following elements of monitoring and verification of forest carbon stocks.

1) Assessment of baseline stocks
2) Assessment of incremental stocks due to conservation, sustainable management of forest, and increase in forest cover
3) Assessment of reduction in deforestation and degradation, and thereby emissions

PAPER NO. 6: INDONESIA

INDONESIAN SUBMISSION ON REDUCING EMISSIONS FROM DEFORESTATION IN DEVELOPING COUNTRIES

INTRODUCTION

The Conference of Parties at the thirteen sessions inviting Parties to submit their views on *how to address outstanding methodological issues*, by 21 March 2008. Scope of submission includes:

Assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions, incremental changes due to sustainable management of the forest, demonstration of reductions in emissions from deforestation, including reference emissions levels, estimation and demonstration of reduction in emissions from forest degradation, implications of national and sub national approaches including displacement of emissions, Options for assessing the effectiveness of actions in relation to paragraphs 1, 2, 3 and 5 of the COP-13 decision on *Reducing Emissions from Deforestation in Developing Countries : approach to stimulate actions*, and criteria for evaluating actions.

INDONESIAN VIEWS

A. Outstanding methodological issues

1. Definitional issues

Estimation of deforestation is affected by the definitions of „forest" and „non-forest" area that vary widely in terms of tree size, area, and canopy density. Forest definitions are numerous, however, common to most definitions are threshold parameters including minimum area, minimum tree height and minimum level of tree crown cover. The FAO forest resource assessment of 2005 used a minimum tree crown cover of 10%, tree height of 5 m and area of 0.5 ha. However, the FAO approach of a single worldwide value does not consider variability in ecological conditions and differing perceptions of forests.

Definitional issues are critical for REDD implementation. Definitions will affect baselines/reference emissions level, monitoring methods, and potential credits from reduced emissions. If forest cover falls below the minimum crown cover, it qualifies as deforestation, but if this is only a temporary change, such as for timber harvest with regeneration expected, the land remains as forest.

Most definitions characterize deforestation as the long-term or permanent conversion of land from forested to non-forested. Under Decision 11/CP.7 the UNFCCC defined deforestation as "the direct, human-induced conversion of forested land to non-forested land" . This means a reduction in crown cover from above the threshold for forest definition to below this threshold.

IPCC defined degradation as a direct, human-induced, long-term loss (persisting for X years or more) or at least Y % of forest carbon stocks [and forest values] since

time T and not qualifying as deforestation. The parameters X,Y and T have not been defined. Carbon stock reduction may occur without degradation and conversely degradation possible without carbon stock reduction, e.g. soil compaction, acid rain, felling damages to residual trees will impair the capacity of the forest to deliver goods and services in the future, but will not result in short-term carbon emissions. Vice versa, reductions in crown cover causing immediate carbon emissions, e.g. selective harvesting, shelter wood systems, do not degrade a forest according to the established meaning, and the contrary, they improve future capacity for goods and services.

Degradation is attrition of carbon stocks, while accrual of carbon stock reduction may not be forest degradation. Forest degradation in this context refer to “forests remaining forests”. To avoid mis-interpretation, inconsistencies and conflicts with the established term “forest degradation” and other processes, and would be measurable and relate directly to carbon emissions, the term “carbon stock degradation” may be used for REDD as suggested by FAO.

2. Assessments of forest cover and carbon stocks changes, and incremental changes due to sustainable forest management

COP-13 decision on REDD encourages the use of the most recent reporting guidelines as a basis for reporting greenhouse gas emissions from deforestation, noting that non-Annex I Parties are encouraged to apply the *Good Practice Guidance for Land Use, Land-Use Change and Forestry* for their national communications.

The IPCC guidelines represent a major international effort on approaches, methods and default data for monitoring and reporting emission from all land-cover. As a readily available tool they should be employed as far as possible. On the other hand, this guidance was elaborated for the purpose of enabling all countries, independent of their state of information and capacity, to report unbiased emissions related to forest. Uncertainty is therefore not constrained for reporting under UNFCCC, countries are to employ the highest tiers possible.

REDD will lead to compensation for reduced emissions. Therefore, higher tiers must be applied, more stringent accuracy requirements must be met, or very conservative claims of achieved reductions should become standard. Applicable tiers, accuracy requirements, and the concept of “key sources” might need to be redefined for REDD. Many default values appear inapplicable for REDD, as they are static and are very uncertain. Since Bali explicitly stress technical assistance, capacity building and provision of financial resources, the situation for REDD differs from reporting under UNFCCC. Information gaps should be filled by a joint effort.

It is challenging to reliably estimate either carbon gains from forest growth, or carbon losses due to harvest or disturbances. Of the two main methods of the IPCC Guidance for estimating carbon emissions from “forests remaining forests”, the “gain-loss method” appears inapplicable. Greenhouse gas emissions will need to be estimated by repeat inventories according to the “stock change method.”

Monitoring emissions under REDD will often involve defining a falling reference level of emission. However, forest loss is not linear but decreases over time.

Monitoring for REDD will involve intensive remote sensing for baseline/reference emission level and actual emissions. Added guidance on this aspect will be needed. While the basic idea of the IPCC guidelines was enabling all countries to report on their emissions from forests, recent reporting for FRA 2005 reveals apparent problems. Only few countries, provided with the GPG and detailed instructions, managed to report on carbon in deadwood, litter and the major soil carbon pool using IPCC GPG.

In summary, 2003 IPCC~~-~~ GPG on LULUCF ~~guidelines~~ provide a ready and sound basis for monitoring and reporting carbon stock changes under various land/forest categories. ~~-under REDD.~~ However, ~~modifications and~~ a complementary section for REDD implementation in the GPG is needed. ~~s to the GPG is necessary.~~
~~. A complementary special chapter on REDD should be elaborated and incorporated by IPCC into guidelines.~~

3. Measuring and monitoring emissions reduction from deforestation and forest degradation.

Existing proposals on monitoring for REDD are currently rely on effort for carbon accounting and compensation, there might be very little to compensate. Relying exclusively on existing IPCC Guidelines for greenhouse gas monitoring, measurement and reporting might not be advisable, basically because these guidelines were written under a different foundation and with a different objective. An analysis suggested that country reporting on biomass and carbon according to the guidelines for FRA 2005 revealed shortcomings and knowledge gaps in forest carbon inventory methods. Complements to these guidelines, specifically for REDD, will be necessary. With such complements, the IPCC guidelines would cover all forest cover modifications currently considered under REDD.

There are multiple reasons to not limit REDD to negative, detrimental activities, such as deforestation and carbon stock degradation. Including carbon stock accruals, carbon stock enhancements and carbon stock conservation via more sustainable forest management would increase the likelihood for success of REDD. In principle, incentives for doing right appear inherently more promising than payoffs to not doing wrong. However, current proposals do not accommodate carbon stock gains, other greenhouse gases and significant carbon pools. Most importantly they do not enable sustainable forest management and policy in the forest and related sectors. Integrating a remote sensing survey in the context of the next global forest resource assessment by FAO and its existing programme of National Forest Monitoring and Assessments with its optimized terrestrial inventory component would alleviate these shortcomings, lower marginal costs, accommodate added activities and create multiple synergies for consistent international reporting and national forest adaptation.

Forest degradation in the “traditional” forestry sense appears unfortunate to capture carbon stock changes under REDD: suggested to refer explicitly to carbon stock degradation in order to avoid mis-understandings. Certain types of degradation, e.g. soil compaction, acid rain, felling damages to residual trees will impair the capacity of the forest to deliver goods and services in the future, but will not result in short-term carbon emissions. Conversely, reductions in crown cover

causing immediate carbon emissions, e.g. selective harvesting, shelter wood systems, do not degrade forest according to the established meaning. On the contrary, they improve future capacity for goods and services.

“Forest degradation” cannot be detected easily in remote sensing survey. FAO (2006) recorded that over 80% of wood removal in developing countries are fuel wood. Remote

sensing cannot detect fuel wood removals or selective logging which does not disrupt crown cover, remotely sensed data are most likely under estimates, and therefore ground check surveys are needed.

Several options exist for including carbon stock degradation in the historic reference emissions level/baseline. Very high resolution remote sensing is a very expensive and may not be highly reliable method, for example, for losses that cause little crown cover disruption. Terrestrial assessments, on the other hand, could detect and reconstruct even small past round wood and firewood removals in forests remaining forests. Possible option for compensation is as follows : Countries would be compensated for any carbon stock accrual or enhancement through forest management between a first and a second carbon stock inventory. This would eliminate the need for a technically and financially challenging reference level of emission for past carbon stock degradation within forests, and would compensate countries commensurate with one of the core requirements of sustainable forest management, that is, setting the annual allowable cut below annual increment.

In addressing outstanding issues on this matter, synergy with other initiatives, such as FAO is crucial. Besides the periodic global forest resource assessment, FAO has established a programme of training, financial and methodological support for countries to establish national forest assessment and monitoring systems and carry out inventories according to an optimal design. An extension of this programme could help assess actual deforestation and carbon stock degradation rates based on field inventories and combined with the FRA remote sensing survey for 2010. Linking such national forest assessments to current proposals for REDD would lead to many synergies. Plots of the inventory could replace expensive ground truthing. Growing stock, biomass and carbon pools, as well as emission factors for carbon accounting would become available. Measuring carbon stock degradation, accrual and enhancement would be possible on a continuous scale, facilitating the added activities considered by COP 13.

The acceptable measurement and monitoring methods should be supported by institutional mechanism in country which is appropriate with institutional system at national and local government levels. This is necessary to ensure the objectivity of the monitoring results based on good governance principles. Therefore the monitoring result is not necessary to be validated by an institution or an expert outside of the country. Indonesia - which has outstanding forest areas with various ecosystems and a dynamic communities - has developed a relatively low cost and a reliable monitoring method and mechanism based on the integration of the satellite imagery uses, ground truth, and government as well as public participations in a good governance principles.

4. Reference emissions level

Measurements of past emissions and forest monitoring in the future is needed to provide the best possible information on emissions reductions from deforestation and degradation. Reference emissions level or baseline can be defined as a reference for measuring reductions in emissions from deforestation and degradation or future projection of emissions from deforestation and degradation under the absence of REDD. This reference level or baseline could be either strictly based on historical emissions or be based on a future projection of emissions.

Reference level represents historical emissions and baseline or BAU (business as usual) represents projected emissions. Both are related, as the BAU projection will be based on both past emissions (historical emissions) as well as future emissions resulting from planned development activities. A reference emissions level involves combining estimates of the change in forest cover at the national level over some

historical period and estimates of the carbon stocks for preferably the same period and their change caused by deforestation and degradation.

Baseline projection of emissions into the future is more difficult to estimate and to be uncertain because future rates of land-cover change are subject to many socio-economic and political factors that are difficult to predict over the long term. Baseline projections of rates of land cover change can be made based on historical data for some recent past period or on economic models of likely planned development.

To be able to determine that real reductions against the reference level have taken place at future monitoring periods, the uncertainty bounds around the reference level estimate should be small. This needs a credible system, therefore, several data sources and systems have to be used and integrated, which implies additional costs and the needs for capacity building.

Reduction of emissions from deforestation and degradation in a country like Indonesia is not easy to achieve given the complexity of the deforestation problem and the cost and barriers of such a wide-scope activity. Since emissions from deforestation and forest degradation occurs due to planned and unplanned activities, basis for demonstrating emission reduction from deforestation and degradation from planned and unplanned activities should be treated differently. For the unplanned deforestation and forest degradation, emission reduction is measured based on level of emission reduction from unplanned activities compare to the historical emissions from such activities. For the planned activities, emission reduction is measured based on carbon stock saved by a country from not implementing planned natural forest conversion. In other word, the later approach is applicable to areas of forest which have already been allocated for conversion to other land uses. By law these forests is allowed to be converted to other land uses, thus, for these forests, REDD provides a potential financial incentive for them to remain as forest.

Adopting the above approaches, reference level of emission from unplanned activities may be developed from a linear projection of the historical emissions from unplanned activities, or an average of historical emissions. Using this approach, the main issue would be the time frame chosen for the historical projection, as it will influence the result. The baseline emission for planned activities should be developed based on country policy in defining designated forest area for conversion. In this context, the baseline is set according to the carbon stock existing at the commencement of the REDD commitment.

~~d1~~.5. Scale of reference emissions level and displacement of activities

Indonesia views that considering differences in size and distribution of forest areas in each country, and national circumstances, efforts on REDD should allow country to choose whether national or sub-national scale in implementation. However, sub-national scale REDD activities in one area may result in increase of deforestation and degradation outside the boundary of the activities. This displacement of activities must be address when sub-national REDD implementation is chosen. On methodological aspect, to address problem of displacement of activities within the country boundary, national approach on determining reference emission level should be applied, which can be broken down into sub-national scales where Party chose for sub-national scale implementation. In addition, Party may apply non-

methodological measures which could address the issues according to their national circumstances, for example, through regulatory framework, removing institutional barriers and ensuring sustainable management of forests at various scales.

B. Assessing effectiveness of actions

1. Strengthen and support ongoing efforts on REDD

A number of non-climate policy instruments in forestry, including forest policy reform, in developing countries indirectly address drivers of deforestation and forest degradation and improving forest management. Assessment of the actions relating to REDD should be seen in the context of national sustainable development, not only from the output but also from the magnitude of the problems encountered.

2. Support for capacity-building, technical assistance and technology transfer

REDD in developing countries requires extra costs that beyond the capacity of the existing resources of developing countries. Additional investments both on human resources development, institutional strengthening and to improve existing forest information system are crucial. It is clear in Bali Action Plan on the important of capacity building, technological and financial supports. Assessment should not only be based on the financial flows but also from the increase of human resource and institutional capacity including technological capacity relevant to REDD efforts.

3. Demonstration activities

Allowing and encourage sub-national level activities and participation of private sector could enhance national and local institutional capacities. Successful sub-national level activities will further encourage governments to take further actions and will steepen the learning curve. Effectiveness of demonstration activities should be assessed based on indicative guidance as in Annex of the COP-13 decision on REDD, as well as other criteria relevant to sustainable forest management.

4. Resource mobilization

Resource mobilization is critical to support national and sub-national efforts that enable the implementation of REDD (i.e. policy development, technical capacity, technology, and financial mechanism, public awareness, data accessibility). Indonesia welcome initiatives to mobilize resources for these purpose, however, it should not result in diversion of existing resource flows for supporting a broader scope of sustainable forest management and national development. The effectiveness should be reviewed on that basis and the impacts on the improvement to forest resource management for sustainable development.

Jakarta, 18 March 2008

PAPER NO. 7: JAPAN

Views on Methodological issues, Reducing Emissions from Deforestation in Developing Countries, 2/CP.13

1. The issue of Reducing Emissions from Deforestation in Developing Countries (REDD) was proposed at the COP11 to be considered as one of the agenda items related to climate change. The basic idea of this proposal is to provide incentives to developing countries when they are successful in achieving emission reduction from deforestation, and thus to encourage their efforts to reduce emissions as well as to promote sustainable forest management. In the discussions after the COP11 the importance of this issue and the necessity to urgently address it were shared among Parties, which culminated in the COP13 Decision 2/CP.13.

2. In order to reach an agreed outcome and adopt a decision in 2009 as decided as "Bali Action Plan", and to substantially deal with REDD after 2013, it is expected that feasible options would be presented and concrete images of future actions would be shared among Parties after considering this in a constructive manner. Japan presents its views as follows, based on its experiences relevant to the issue of REDD;

1) Necessity to appropriately grasp the status of forest resources

With REDD it is envisaged that certain incentives would be provided when emission reduction from deforestation and forest degradation be achieved through measures taken by developing countries. It is necessary that the followings be materialized in the developing countries participating in the REDD scheme;

a) Monitoring and assessment of the past and present status of forest resources,
b) Estimation of future deforestation and associated emissions based on the past and present status of forest resources (establishment of reference level),
c) Formulation and implementation of measures to deal with deforestation and forest degradation,
d) Measurement of impact to deforestation and forest degradation through the implementation of the measures (possibility of certification by third-party institution),

Item a) above forms the basis of all the measures and is of utmost importance. Data on the status of forest resources are not fully equipped in many of the developing countries, and it is expected that those data would be prepared in a cost-effective manner. More specifically, satellite data analyses and ground truth research in forests should be appropriately combined. Through the analyses of satellite images it is facilitated to carry out stratification/classification of forests and to detect "hot spots" where deforestation and/or forest degradation is taking place, but it does not mean that forest biomass, carbon stock and their changes could automatically be assessed. On the other hand, it is possible to conduct, through ground truth research, assessment of forest with high accuracy, including analysis of composition of tree species, but it is not realistic to cover vast tracts of forest. It is therefore appropriate to carry out satellite data analyses and ground truth research in proper combination and thus estimate chronosequential changes of forest resources in a rational manner both cost and human resource wise. Meanwhile assessment of status of forest resources in the past is to provide basis for estimating the trend of change in forest resources, expected level of accuracy is obviously different from that of assessment of present status of forest.

It is considered appropriate to utilize images of satellites, such as LANDSAT, carrying out continuous data collection, which enables assessment of historical change of status of forest resources. Through combining images of lower resolution covering wider area as well as ones of higher resolution, it would be possible to obtain data sets with rational level of precision in an efficient manner. In case of tropical rain forest areas where there is difficulty with optical sensors in obtaining complete pictures without cloud cover, it would be useful to utilize images of Synthetic Aperture Radar (SAR) using microwaves to complement them. (For example, PALSAR on board of a Japanese satellite ALOS is

applicable.) A technique establishing a complete image by compiling multiple pictures from the same satellite is also available.

2) Estimation of future deforestation and associated emissions based on the status of forest resources

In order to set a basis that incentives are provided when emission reduction from deforestation and/or forest degradation is performed through efforts by developing countries, it is necessary to carry out estimation of future deforestation and associated emissions (i.e. establishment of reference level). Basically the reference level would be set based on historical change of forest resources. More specifically it is assumed that the reference level would be established based on monitoring of present forest resources making use of both analyses of satellite images and ground researches in forests, and assessment of forest resources in the past with previous satellite images and/or forest inventory.

With regard to the establishment of reference level, it is expected that thorough discussion would be done on whether the countries should apply the same standard methodology to set their levels, or variety of methodologies would be allowed by countries and regions.

In countries and/or regions where the history of forest exploitation is rather short so that present level of deforestation/forest degradation is not very significant but large scale exploitations are foreseen, future prospects of socioeconomic trend could also be reflected when setting the reference level. In such case, socioeconomic factors to be considered should be presented and explained in an objective manner. Where forest resources are near to exhaustion in spite of measures implemented to realize sustainable forest management, deforestation/forest degradation would also come to an end soon. This should also be reflected. On the other hand, in countries and/or regions where forest resources have already been under development for years, the level of deforestation/forest degradation might fluctuate drastically year by year because of various socioeconomic and natural factors. As forest resources are under quite diverse circumstances from country to country, establishment of reference level should be conducted based on historical change of forest resources, taking account of socioeconomic factors when necessary, in such a way that reflect context of countries/regions in an objective and flexible manner.

3) Forest degradation

Similar to deforestation, forest degradation would lead loss of forest biomass followed by greenhouse gas emission. As the ultimate objective of REDD is emission reduction, forest degradation should also be included in the scheme. This has been Japan's position during COP13, and Japan considers that the meeting concluded with an appropriate decision, referring to forest degradation in parallel with deforestation (2/CP.13).

Deforestation is the case where a forest cover goes below the threshold of definition of forest mentioned in the Marrakech Accord (a minimum area of land, tree crown cover and a minimum height at maturity in situ), so that there is little problem regarding definition. Meanwhile, there is no definition of forest degradation under the accord, even though there have been numbers of definitions proposed. As the ultimate objective of REDD is emission reduction, in principle, all the loss of forest resources associated with emission should be accounted for as forest degradation. It would not be constructive to go into an unnecessarily lengthy discussion on the definition of forest degradation.

There might be an argument on how logging activities under legal framework of forestry law and/or national forest program be treated in relation to forest degradation. This issue should further be studied, however it is assumed that such logging activities would not lead to huge emissions if logging would be carried out in a way to fulfill sustainable forest management, because reforestation and/or natural regeneration would be ensured, and then forest vegetation would come back rather soon. On the other hand, if a logging activity would cause long-term loss of forest resources and emissions, it is difficult to consider it an appropriate logging activity so that its emission should be accounted for as forest degradation. Furthermore, it should be considered whether a certain forest degradation is human-induced, caused by natural phenomena, or both factors are entangled, and the approach might be different

owing to the nature of cases. In this regard, there is a distinct difference with deforestation which is associated with land use change, and is undoubtedly human-induced.

If forest is heavily disturbed by a large-scale fire or human-induced activities and the main species forming climax forest are lost and no mother tree is left, the forest might regenerate but typical pioneer species would occupy the majority so that recovery of forest through succession would be hindered. It is then not expected that the forest would recover back to the former status. In such a case measures such as underplanting with major tree species forming climax forest would be needed and could be identified as one of the REDD measures.

It would be cost-effective and beneficial if a rule could be established allowing not to account for emissions if proved to be negligible. With regard to AR CDM, all five carbon pools namely above-ground biomass, below-ground biomass, litter, dead wood and soil organic matter, should be accounted for in principle. However it is possible not to account for some of the pools if it can be explained objectively that they would not turn to emissions. This rule simplifies the procedure of AR CDM project activities.

Regarding REDD, all five carbon pools should be accounted for in principle as well, however in the case of forest degradation, it might be possible that emissions from carbon pools other than above-ground biomass would be negligible enough to conclude not necessary to be accounted for. Further data collection is needed to verify the adequacy of such a measure.

4) Tree plantation

Tree plantation is to develop a forest on abandoned cropland or grazing land or to facilitate recovery of degraded forest. It contributes to mitigation of climate change through sequestration of carbon by growth of forest, so that it could be one of the important elements of REDD measures. With regard to carbon sequestered by the plantation, it is assumed most reasonable that it would be accounted for within the total emission reduction realized by a set of REDD measures.

In the first commitment period, the removals achieved by project-based AR CDM activities can be accounted for as credits. However it is yet to be discussed how AR CDM would be treated in the next commitment period. In theory, parallel implementation of both REDD and AR CDM would be possible, though it is assumed to be technically complicated and cumbersome if project base AR CDM should be accounted separately from surrounding REDD on national base. It should be further analyzed how both REDD and AR CDM would be implemented jointly.

There are tree plantations with species like oil palm aiming at bio-energy production, or ones with fast-growing species such as *Eucalyptus* aiming at production of raw material for pulp and paper. It is also necessary to discuss how the growth of those plantations should be accounted properly. If industrial tree plantations are established after clear-cutting of old growth forest, it would be problematic from such a viewpoint as biodiversity. Meanwhile it is also assumed that industrial tree plantations could contribute to generating income for local farmers so that the plantation would be entitled as an important element of REDD measures. Further in-depth discussions should be needed on how such plantations should be treated.

5) Emission reduction activities

It is expected that experiences and knowledge obtained from previous and ongoing activities on sustainable forest management would be reflected when considering measures to reduce emissions from deforestation and forest degradation. For example, establishment and/or adjustment of institutional framework of forest management, participatory forest management, prevention of forest fires, and combating illegal logging would be the potential options as emission reduction activities, though the effectiveness of the activities and the combination of them would vary by regions. It is important to initiate the demonstration activities as soon as possible, with collaboration among host countries, donor countries and relevant organizations.

PAPER NO. 8: NEPAL

Submission by NEPAL
21 March 2008

Reducing Emissions from Deforestation in Developing Countries

(Outstanding Methodological Issues Relating to REDD with special reference to degradation and involvement of local stakeholders)

Background

Decision (FCCC/SBSTA/2007/L.23) of the 13th Session of the Conference of Parties (CoP13) to the UN Framework Convention on Climate Change (UNFCCC) invites Parties to submit, by 21 March 2008, their views on how to address outstanding methodological issues (decision 7.a), including, *inter alia*, assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions, incremental changes due to sustainable management of forest, demonstration of reductions in emissions from deforestation, including reference emissions levels, estimation and demonstration of reduction in emissions from forest degradation, implications of national and subnational approaches including displacement of emissions, and options for assessing the effectiveness of actions.

Nepal considers this agenda item a forward looking approach to reduce greenhouse gas emissions from deforestation and forests degradation at the global level, in particular in the developing countries. This initiative should best utilize the appropriate methods and efforts made to address methodological issues that would help the communities and individuals involved in reducing deforestations and forests degradation, and benefit them for their untiring self-motivated sustainable forest management initiatives.

Forests have multi-fold benefits to maintain and improve the environmental condition at all levels (global, regional, national and local levels), and people are involved in developing, conserving and managing the forest resources. There are several examples where communities have played significant role in managing the forest resources even by daring to put their immediate livelihood benefits at stake. Such efforts should be recognized and rewarded in such a way that it provides benefits from environmental goods and services thereby also increasing the income level of the rural population.

A number of methodological challenges are of significance as regards to stakeholder involvement in reducing greenhouse gas emissions from deforestation and forests degradation. In order for national governments and local communities involved in forest management benefited, and contributing to the global efforts of minimizing the greenhouse gas emission from reducing deforestation and forests degradation in the developing countries, Nepal proposes the following technical issues relating to proven effective policy measures including community-based forest resource management for consideration in the forth-coming session of the SBSTA and the COP to UNFCCC.

1. ***Reference scenario (baselines) for deforestation and forests degradation is required to assist developing countries, in particular the least-developed mountainous countries, to benefit from REDD mechanism***

In order for the new REDD policy to be fair, effective and efficient, and to enable stakeholders, including community groups involved in forest management to participate in the mechanism, it is urgently required to:

a) Develop reference scenarios, and assist in particular the least-developed mountainous countries to develop national reference scenarios, separately, for accounting (a) deforestation (in terms of hectares forest lost/annum), and (b) forest degradation (in terms of tons carbon/ha/annum). In case of degradation relating to subsistence use of forest products by local communities, the reference scenario should be developed on the basis of average per capita extraction of forest biomass.

However, for degradation relating to selective logging, the reference scenario should consider the statistical records relating to timber and/or biomass extraction.

b) Develop a system of nested reference scenarios (baselines) specific to different regions (areas) within a country, whose total emissions and sinks sum up to the national reference scenario.
c) Adopt a system in which not only the carbon saved by reduced deforestation and forests degradation, but also the additional carbon sequestered by sustainable forest management, shall be subject to crediting.
d) Set up a transparent system of institutional arrangement for implementing REDD, to support communities, individuals and institutions to benefit from REDD mechanism.

2. Assessment of reductions in forests degradation rate would provide a basis for the effective participation in REDD initiatives

Once a reference scenario has been established for forests degradation including deforestation, assistance should be provided to countries for assessments of greenhouse gas reductions from those activities. This opportunity will be conductive to the local stakeholders whose actions may have had direct bearing to reduce forests degradation. In order for validation of these carbon credits, a statistically sound sample check will be needed. For this, Parties should be encouraged and assisted to:

a) Identify forest areas managed and improved, including the ones by the communities, to counter forests degradation;
b) Undertake stakeholder carbon assessments in the identified forest areas at time t_1 and t_2 using IPCC Good Practice Guideline 2003 Tier 3 procedures; and
c) Assist least-developed mountainous countries to carry out routine spot check following credible methods to validate carbon credit claims and to ensure no degradation leakage, if any, in other areas.

3. A Nested Baseline should be in place

As also proposed by other Parties before COP13, a system of nested baselines for both deforestation and forests degradation should be in place. This will reflect different conditions in different parts of the forest of a country and it together will give full coverage of the different forests and which, summed, add up to the national reference emission scenario. For this, it is necessary to:

a) Encourage and assist countries to develop nested baselines for forests degradation and deforestation which reflect spatially definable areas under different management types and ecological zones.
b) Follow the Tier 3 Country-Specific Methods as described in the IPCC Good Practice Guidelines, 2003 for carbon accounting system for the national baseline as well as for the nested baselines for deforestation and forests degradation in order to maintain uniformity in accounting emissions and removals from forest areas.
c) Carry out reporting on emissions and removals for national and nested baselines in the format outlined by the IPCC Good Practice Guidelines 2003.

4. Rewarding system for carbon sequestered as a result of sustainable forest management is urgently required to put in place

A system of incentives for carbon stocking and sequestration should be recognized and rewarded to benefit poor people involved in developing, conserving and managing the forest resources even by putting their immediate livelihood benefits at risk. This would (also) encourage mountainous countries to increase carbon stocks in natural and man-made forests, thereby also supporting sustainable livelihood of the forest dependent communities. It is equally important to recognize and reward the role of conservation in improving the forest conditions. In order to recognize and reward the community-based forest management, it is necessary to:

a) Put in place the crediting mechanism for the increase in carbon stock that would result from sustainable forest management in addition to the avoided losses due to deforestation and forests degradation; and

b) Carry out measurement of incremental carbon stock brought about by stakeholders themselves as suggested in # 2 (assessment of reductions) above and may be validated as suggested in #5 below.

5. Validation of emission claims should be simple and affordable

Under REDD, validation is bound to be cumbersome particularly in the remote mountain areas. Transaction cost would also be high and measurement would be expensive in small patches of forests scattered across the mountainous terrain. In order to address it, remote sensing technique might be one of the appropriate tools in the mountain forests for validations (over the large areas. Hence, Nepal proposes to:

a) Use affordable and credible validation method including remote sensing to the largest extent possible with the objective to lower transaction cost; and
b) Base the validation on a credible ground.

20 March 2008, Thurday

PAPER NO. 9: PARAGUAY ON BEHALF OF ARGENTINA, HONDURAS, PANAMA, PARAGUAY AND PERU

Submission of the Republic of Paraguay on behalf of Argentina, Honduras, Panamá and Peru on methodological issues and criteria for evaluating actions for reducing emissions from deforestation and forest degradation in developing countries

Introduction

The Conference of the Parties (COP), at its 13th session, requested the Subsidiary Body for Scientific and Technological Advice (SBSTA) to undertake a program of work on methodological issues related to a range of policy approaches and positive incentives that aim to reduce emissions from deforestation and forest degradation in developing countries, and invited Parties to submit their views on how to address outstanding methodological issues including, *inter alia*:

- Assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions,
- Incremental changes due to sustainable management of the forest,
- Demonstration of reductions in emissions from deforestation, including reference emissions levels,
- Estimation and demonstration of reduction in emissions from forest degradation,
- Implications of national and sub-national approaches including displacement of emissions.

Moreover, Parties are invited to provide views and criteria for evaluating the effectiveness of actions to:

- Further strengthen ongoing efforts on a voluntary basis;
- Support capacity building, provide technical assistance facilitate the transfer of technology to improve, *inter alia*, data collection, estimation of emissions from deforestation and degradation, monitoring and reporting and address the institutional needs of developing countries to estimate and reduce emissions from deforestation and forest degradation;
- Explore a range of actions, identify options and undertake efforts, including demonstration activities, to address the drivers of deforestation relevant to their national circumstances with a view to reducing emissions from deforestation and forest degradation and thus enhancing forest carbon stocks due to sustainable management of forests.

We welcome this opportunity to contribute to the SBSTA work program on methodological issues related to REDD and look forward to a constructive exchange of views with other Parties leading to a successful outcome by COP14.

I. Overview

Paraguay and other Latin American countries did put forward a flexible and inclusive approach to REDD known as the Nested Approach (**FCCC/SBSTA/2007/MISC.14**). In the present submission, we detail methodological approaches associated with the proposed national and sub-national scales that would ensure the environmental integrity of the climate change regime.

Moving on REDD will require a level of capacities that most developing countries currently lack. Therefore, we reiterate the need for timely and sufficient support from Annex I countries for capacity building activities. In our view, the decision adopted by the COP13 in Bali merely "*encouraging* Parties

in a position to do so to support these activities" is not sufficient. Further guidance on financing is urgently needed, taking into account the need for up-front financing according to the principle of common but differentiated responsibilities.

Finally, we want to recall that the current negotiations aim at stimulating actions to reduce emissions from deforestation and forest degradation. As a consequence, any mention of conservation and sustainable forest management should be understood in the context of climate change mitigation.

II. Views on how to address outstanding methodological issues

1. Assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions

The background paper prepared by the UNFCCC Secretariat for the first SBSTA Workshop on REDD provides a comprehensive overview of the existing capacities and data on the assessment of forest cover and associated carbon stocks. Among the most relevant issues to be addressed by SBSTA, we identified the following:

- Remotely sensed data provide a practicable approach for monitoring changes in forest and vegetation cover.

- Established methods and tools are available for estimating carbon stocks of forests.

- Methods for estimation of emissions from areas with measurable deforestation are available in the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories and the IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry.

However:

- The costs of remote sensing analysis is very high, especially for countries with large areas of forests and most countries lack the capacity to work with such data.

- The carbon stocks of different ecosystems around the world are poorly known and this aspect lags behind remote sensing. Carbon inventory methods and tools require high investment for broad-scale national inventories. When emissions from deforestation represent a key category, the IPCC guidelines for GHG national inventories recommend the use of Tier 2 or 3. Deforestation is almost always a key category for developing countries. Thus a great effort needs to be undertaken to allow countries to develop ecosystem-specific equations and/or models rather than using default values.

- The lack of data on both changes in forest cover and, more critically, changes in carbon stocks often hampered reliable and transparent emissions' estimates.

- Furthermore, scientific research indicates that national level estimates of emissions are plagued with very large uncertainties. Estimates would be much more precise at the project scale where sampling efforts could be more thorough.

Our proposed Nested Approach recognizes these issues and allows countries to scale-up their level of participation from sub-national to national as their capacities are strengthened and adequate scientific methods are being developed.

2. Incremental changes due to sustainable management of the forest

Three new concepts were included in Article 11 of Decision 2/CP13: (1) sustainable management of forests, (2) enhancement of carbon stocks and (3) forest conservation. Activities in *forest land remaining forest land* can lead to enhanced carbon stocks or reduced emissions. It must be stressed however that enhancement corresponds to emissions removals rather than to emission reductions.

Carbon stock enhancement generates real benefits for climate and should be considered as an eligible mitigation action. The IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry and the Revised IPCC Guidelines 1996 provide methodologies to measure increases in carbon stocks.

3. Demonstration of reductions in emissions from deforestation, including reference emissions levels

Demonstrating emissions reduction requires (A) defining a reference level and (B) verifying the emissions reduction.

(A) Reference level:

- National scale: Any projection of future emissions at the national level is subject to high uncertainties. Taking this into consideration, in the Nested Approach, a national reference emission level would be negotiated under the UNFCCC by each interested non Annex I Party and remain fixed for a future predefined period (e.g. ~10 years). One possible way to begin the negotiations of the national reference level is to determine historic rates of emissions based on a sufficiently long past period, e.g. 5-10 years. To take into account national circumstances, such level may allow for an increase in emissions from deforestation during the commitment period compared with an historical emission level. Tradable and fully fungible emission reduction credits could be issued against this reference level.

- Sub-national scale: Emission baselines for sub-national activities under the Nested Approach could be determined using one of the following two options:
- Option 1: The sub-national activity determines its emission baseline using a UNFCCC approved methodology. This option will most likely be applicable in countries that have not adopted a national emission reference level. Methodologies to establish sub-national baselines may be (i) prepared using a top-down approach and (ii) approved *ex ante* by a competent UNFCCC body. Sub-national activities could use a number of already existing approaches to estimate baseline emissions, amongst them: a) extrapolation into the future of past trends; b) hypothetical future scenarios; c) prevailing technology or practice; and d) simple logical arguments based on adjusting observed trends. Furthermore, spatial statistical models offer a new and appropriate way to identify and evaluate the relationship between deforestation and spatially-explicit explanatory variables such as accessibility and pressure on forests. Tradable and fully fungible emission reduction credits could be issued against this reference level.

- Option 2: The host country assigns an emission reference level to each sub-national activity it authorizes. This approach will be applicable where the host country has adopted a national emission reference level (i.e. the country has negotiated a national reference level). Tradable and fully fungible emission reduction credits could be issued against this reference level.

(B) Verification:

- At the national level, emission reductions from REDD activities could be reviewed by an independent review team named by UNFCCC as in Annex 1 countries.

- At sub-national level, reference emissions, actual emissions reduction and leakage could be verified by an independent accredited body.

4. Estimation and demonstration of reduction in emissions from forest degradation.

Forest degradation is the persisting and long-term reduction of carbon stocks in *forest land remaining forest land* due to human activities. No more specific definition is required in the context of REDD.

Methodologies to determine the emission reference level of forest degradation are not yet available and no guidance currently exists in the IPCC literature.

Such methodologies could be developed by defining classes of degraded forests and estimating activity data for categories of change (e.g. "degraded forest" to "severely degraded forest"). Under this approach, methodologies for forest degradation would be similar to methodologies for deforestation (where the category of change is "forest" to "non forest").

Activity data for degraded forest categories could be defined using either direct approaches (e.g. remote sensing and forest inventories) or indirect approaches (e.g. relation between degradation and proximal causes such as the presence of roads).

In the Nested Approach, options to estimate and demonstrate reduction in emissions from forest degradation would be similar to those presented in paragraph 3 above.

5. Implications of national and sub-national approaches including displacement of emissions

In the short term, national and sub-national approaches may have different implications on relevant aspects, which need to be recognized and addressed, such as institutional and methodological requirements, level of uncertainties, requirements of up-front financing and number of countries able to participate. Moreover, national approach requires strengthening governance, without which the involvement of private sector, the participation of local communities and indigenous peoples may not be guaranteed.

In the Nested Approach, national and sub-national approaches are compatible and could easily coexist over the long term. A country starting with sub-national activities shall engage in a national approach XX years after having started the first sub-national activity, or once YY% of its forest area will be included in approved sub-national activities. This does not mean that sub-national activities have to finalize after a country adopts a national approach.

6. Displacement of emissions:

Because displacement of emissions is a real preoccupation of many Parties, we provide a thorough discussion of the implication of scale for such displacement. While it is generally accepted that national reference level would address concerns over displacement of emissions, sub-national activities should implement displacement of emissions prevention measures. We stress however, that examples exist, such as the Noel Kempf Mercado Climate Action Project, where leakage has been successfully measured and accounted for at the project level.

The Nested Approach introduces the notion of reserve credits. Reserve credits are a part of the realized emissions reduction that would be set aside by the host country engaging in sub-national activities to provide insurance, *inter alia*, against displacement of emissions or failure of these activities. For countries that have negotiated a reference level, displacement of emissions could be addressed in either of two ways:

a. A country could request to each sub-national activity to transfer a percentage of its sub-national REDD credits to the national reserve account. No UNFCCC methodology would be necessary to quantify leakage as it is controlled at the national level.

b. Alternatively, displacement of emissions could be determined using an approved methodology and the amount of displacement of emissions detected should be deducted from the project credits. UNFCCC approved methodology would be necessary to quantify the displacement of emissions.

For countries that have not negotiated a national reference level, only option b. would be available. Clear reliable and transparent accounting would follow:

- At the national level, two types of credits are proposed: tradable and reserve. Tradable credits, at the national level, do not include credits from sub-national activities to avoid double accounting.

  Tradable credits = Reference level emissions – Observed Emissions – Tradable Project Credits – Reserve credits

  Reserve credits = X% * (Reference level emissions – Observed Emissions – Tradable Project Credits) + Credits deducted from projects as per Option a.

- At the sub-national level, accounting will depend on the option chosen by the host country to account for displacement of emissions.

  As per Option a. Tradable Project credits = Baseline – Actual Emissions – Project credits assigned to the national reserve.

  As per Option b. Tradable Project credits = Baseline – Actual Emissions – Verified leakage

III. Views and criteria for evaluating the effectiveness of actions to inter alia, strengthen ongoing efforts, support capacity building and explore demonstration actions

As we have previously mentioned, support from Annex I countries to enhance the capacities of developing countries in the short term is paramount for scaling up the efforts of developing countries to reduce their GHG emissions from deforestation. In order to evaluate the contribution of Annex I countries to the efforts by developing countries on REDD, we propose that the former should submit annual reports to the COP as of its 14th session. These reports should be posted on the REDD web platform requested by Decision 2/CP13.

Such reports should provide information on the following:

1. Specific actions supported during the year to further strengthen ongoing efforts;

2. Specific actions to support capacity building, provide technical assistance to facilitate the transfer of technology to improve, *inter alia*, data collection, estimation of emissions from deforestation and degradation, monitoring and reporting and address the institutional needs of developing countries to estimate and reduce emissions from deforestation and forest degradation, including data on how the support provided by the Annex I country will contribute to enhance the capacity of the developing country counterpart to scale up its efforts to REDD;

3. The actions, including demonstration activities, carried out cooperatively with developing countries including, *inter alia*, data on:

    a. The number of demonstration activities supported;
    b. The amount of emissions reduced and expected to be reduced by each demonstration activity supported;
    c. The cost of the emissions reduced by such activities;
    d. How these activities improved or are expected to improve the capacities of the developing country counterparts;
    e. How, in the view of the Annex I country, these activities contribute to the broader sustainable development goals of developing country counterparts;
    f. How, as a whole, the activities supported by the Annex I country reflect an equitable treatment across approaches (national and subnational), activities (avoided deforestation, degradation and enhancement of carbon stocks), levels of capacity and geographical regions.

4. How the Annex I country is promoting the equitable participation of developing countries through the actions carried out through 1, 2 and 3 above.

Furthermore, the web platform could also serve as a window to highlight the progress of demonstration activities. Each demonstration activity should upload its PIN to provide a way of sharing methodological approaches and, on a voluntary basis, could provide an assessment of successes and difficulties encountered as the implementation takes place.

PAPER NO. 10: SLOVENIA ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES

SUBMISSION BY SLOVENIA ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES

This submission is supported by Bosnia and Herzegovina, Croatia, Serbia and Turkey

Ljubljana, 17 March 2008

Subject: **Reducing emission from deforestation in developing countries: approaches to stimulate action**
Views on how to address outstanding methodological issues

1. Introduction

Slovenia, on behalf of the European Community and its Member States, welcomes the decision *Reducing Emissions in Developing Countries: approaches to stimulate action* that was adopted at the 13th Conference of Parties (COP 13) of the United Nations Framework Convention on Climate Change (UNFCCC) in Bali in December 2008. The EU believes that the Indicative Guidance contained in the Annex to the Decision will be very helpful to Parties and other organisations wishing to participate in demonstration activities. Experiences from implementing such activities will help achieve successful integration of policy approaches and positive incentives to reduce emissions from deforestation and forest degradation in the decision on long-term cooperative action to be concluded at COP 15. The EU notes that the indicative guidance will need to be extended by further methodological work, as provided for in paragraph 7 of the Bali Decision on deforestation. The EU believes that solutions can be found to the outstanding methodological issues (identified in para 7a of the same Decision) that need to be resolved in order to operationalise the REDD Decision in the context of the Bali Action Plan, and the Work Programme adopted by the Ad-hoc Working Group on Further Commitments for Annex I Parties. The EU is therefore pleased to submit views on these issues, as requested, and has used the order of the issues identified in para 7a to structure its submission.

2. Methodological Issues

2.1 Assessing changes in forest cover and associated forest carbon stocks and GHG emissions

The guidelines produced by the Intergovernmental Panel on Climate Change (IPCC), and encouraged for use by Parties in estimating emissions and removals from all categories including land-use, land use change and forestry should be used as a basis for assessing changes in forest cover and associated forest carbon stocks and greenhouse gas emissions. The EU notes that reporting tables for emissions from deforestation will need to be worked out with a view to ensuring comparability of reporting between countries, and that in some cases additional methodological work would be needed to apply the guidelines. The Guidelines should in all cases be applied transparently and the application be open to review. Application should be consistent over time, and consistent between the reference level and the emissions estimates compared with it. In some cases identified below it may be conservative not to account for pools of carbon and this may reduce monitoring costs provided there is evidence to support the conservative nature of the omission.

The EU believes that the application of the IPCC's guidance to estimating emissions from deforestation in developing countries will generate methodological experience that should be shared and the IPCC may wish to provide a forum for this [1].

The IPCC's Guidance provides appropriate methodologies to estimate forest areas and changes in forest area, and the associated uncertainties. The Guidance covers ground based and remote sensing methods. The EU recognises that the national circumstances of developing countries will often increase the emphasis on remote sensing, though in practice a combination of methods is likely to be necessary. The EU recognises that providing historical data on deforestation rates may be challenging but believes that archived remote sensing data provide a basis for doing this. The EU believes that estimating historical emissions from forest degradation is likely to be more challenging and may require additional information on the current extent of degraded ecosystems.

To estimate changes in forest carbon stocks, the EU notes that, although the IPCC's guidance provides default values for undisturbed forest, additional work including ground based observations will be necessary to establish carbon densities where deforestation is taking place on forests that have already been subject to human activity, and that ground based measurements are also likely to be necessary where default values are not appropriate to particular ecosystem types, or where countries wish to depart from default values and use higher Tier methods. The EU notes that, where data are not available for some carbon pools, eg dead organic matter or soil carbon, it may be conservative to omit them from the accounting, and that there is a precedent for this in the accounting rules adopted for LULUCF activities under the Kyoto Protocol.

The EU notes that incidence of large fires can be detected by remote sensing. The IPCC guidance provides methods for estimating greenhouse gas emissions associated with fire, though to apply these is likely to require country specific data to apportion between the biomass burnt and that which decays without burning. The assumption that biomass decays rather than burns may be conservative; however Parties may wish to consider further the type of country-specific data are necessary where countries do account for non-CO_2 emissions from burning.

The EU recognises that the IPCC 1996 Guidelines supplemented by the 2003 Good Practice Guidance [2] are the current Guidelines encouraged for use by Parties, and notes that the 2006 Guidelines [3] agreed by the IPCC in 2006 contain useful additional scientific information and should be available for use in applying the currently agreed Guidelines.

2.2 Assessing incremental changes due to Sustainable Forest Management

In general incremental changes in forest carbon stocks due to forest management should be assessed using the IPCC Guidance identified in section 2.1 above. Tier 2 or 3 methods will be necessary to estimate the effect of specific management practices. In the context of positive incentives to reduce emissions from deforestation and forest degradation the EU recognises that additional action to promote and implement sustainable forest management may be a response to increased pressure that would otherwise lead to deforestation or forest degradation, and the incremental change achieved by action of this type could be assessed relative to an agreed reference level, in the same way as emissions from reduced deforestation or forest degradation. In this case causal understanding of the factors leading to

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1 In the same way that the IPCC's Emission Factor Database provides a forum for sharing information on emission factors.

2 IPCC. 2003. Good practice guidance for land use, land-use change and forestry. Institute for Global Environmental Strategies, Japan.

3 IPCC. 2006. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Institute for Global Environmental Strategies, Japan.

increased pressure, for example increased opportunity cost associated with higher timber prices are likely to be particularly important.

The EU notes that the international community has developed guidance on sustainable forest management, under the auspices of the UN Forum on Forests, UNCED (which has adopted Forest Principles), the CBD, ITTO and FAO. The EU notes further that the NLBI as adopted by the UN General Assembly provides holistic policy framework for promoting SFM. The UNFCCC should seek to use the concepts and guidance developed in such processes.

2.3 Demonstration of reductions in emissions from deforestation

2.3.1 Reference emission levels

In the EU's view the reference emission level should be based on historical data on deforestation rates modified if necessary to take account of variation in the causal factors which determine the rate of deforestation or forest degradation. The EU notes that deforestation and forest degradation can be understood in terms of processes affecting generalised forest types. For example Chomitz [4] has identified:

- *Forest-agriculture mosaiclands* (land ownership relatively well defined, relatively high population density, access to markets, natural forest under pressure from agriculture or plantation forestry)
- *Frontier and disputed areas* (pressures for deforestation and degradation increasing, control often insecure and conflict possible)
- *Areas beyond the agricultural frontier* Relatively large forest resources, mainly indigenous inhabitants, remote form market access.

The EU believes that deforestation rates can be understood causally in terms of socioeconomic factors (commodity prices, tenure rights, forest policies, law enforcement), and that the reference emission level may need modification to reflect a causal understanding of these factors, rather than being simply be set equal to the historical rate. This will help ensure that the positive incentives produce additional action leading to a reduction in emissions from deforestation and forest degradation. The same approach should be used to ensure that positive incentives produce additional action on sustainable forest management, and hence increases in forest carbon stocks, in forests where forest degradation or deforestation would otherwise occur.

Reference levels should be agreed for a period of at least five years, to help smooth out the effects of statistical fluctuations in the deforestation rate. Although the EU recognises that there may be a case for a longer assessment period, coherence with other agreements under the Bali Action Plan is crucial. In this case a buffer could be used to smooth fluctuations between assessment periods. Assessment periods will need to be contiguous. The associated reference levels will be revised for each assessment period. The sum of emissions represented by the reference levels will need to decline over time, consistent with our shared vision.

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[4] Chomitz, K.M., P. Buys, G. De Luca, T.S. Thomas, S. Wertz-Kanounnikoff. 2007. At Loggerheads? Agricultural Expansion, Poverty Reduction, and Environment in the Tropical Forests. World Bank, USA.

As indicated in its submission of July 2007, contained in FCCC/SBSTA/2007/MISC14, incentives based on quantified achievement in reducing emissions from deforestation would be linked to performance beyond an agreed emission reduction level. The EU believes that agreed levels should be developed on the basis of the reference levels and negotiated periodically. They should be ambitious, yet realistically achievable, taking into account national circumstances. In the EU's view, a submission on methodological issues is not the place to discuss agreed levels, which should be linked to negotiations on incentives.

The EU notes that the coverage of emissions and carbon pools quantified in the reference emission level needs to be consistent with the emissions estimates that are to be compared with the reference level.

The workshop referred to in para 7(b) of the deforestation decision should, in our view, focus on the methodologies for establishing national reference emission levels.

2.3.2 Estimation and demonstration of reduction in emissions from forest degradation

EU recalls that in 2003 the IPCC assessed existing definitions of forest degradation and decided that none was entirely satisfactory[5]. The IPCC proposed a definition including the idea of a minimum percentage loss. However the EU notes that using the IPCC methods for forest land remaining forest land over successive inventory periods would detect long term loss, and that setting of a fixed percentage, below which degradation is not counted, is unnecessary in practice, and might introduce perverse incentives. The EU believes that since forest degradation occurs within the remaining area of forest, the methods for estimating carbon stock changes and greenhouse gas emissions associated with forest land remaining forest land can be used for estimating emissions associated with it. However since the IPCC Guidance does not provide default values for degraded forest, further work is likely to be necessary to put these methods into practice.

2.3.3 Implications of national and subnational approaches including displacement of emissions

The EU recognises that subnational approaches may be appropriate under some national circumstances, as a step towards the development of national approaches, reference levels and estimates. National approaches are essential to avoiding the risk of displacement within the national boundary. The EU believes that agreements reached under the Bali Action Plan should refer to national approaches, reference levels and emissions estimates.

2.4 Criteria for assessing effectiveness of actions

The EU notes that a the purpose of the actions described in paragraphs 1, 2, 3 and 5 of the COP 13 Decision on reducing emissions from deforestation in developing countries is to provide experience relevant to outstanding methodological issues.

2.4.1 In relation to ongoing efforts

The EU believes that criteria for assessing the effectiveness of on-going efforts should have been established when the on-going efforts were put in place. Presumably these would include estimation of emissions within the relevant forest area (which could be national or sub-national), assessment of the effect on emissions within the relevant jurisdiction but outside sub-national areas covered by the on-going efforts, assessment by stakeholder consultation of the effects including on local communities and indigenous peoples, and assessment of the effect on biodiversity.

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[5] IPCC. 2003. Definitions and methodological options to inventory emissions from direct human—induced degradation of forests and devegetation of other vegetation types. Institute for Global Environmental Strategies, Japan

2.4.2 In relation to capacity building and technical assistance

Success in these efforts should be assessed by the progress made in development and implementation of a national plan to reduce emissions from deforestation and forest degradation, and the establishment (where they do not already exist) of the necessary institutions to put it into effect. These would deliver the ability to estimate emissions, define a reference level, develop policies to reduce emissions, and put them into effect. The EU notes that these efforts include those under the United Nations Forum on Forests and of the Non Legally Binding Instrument in 2007 whereby Member States committed to reinforce the role of institutional capacity building, technology transfer and technical cooperation, law enforcement and information networks in the context of illegal deforestation. These efforts also include those that will be undertaken under the auspices of the World Bank's Forest Carbon Partnership Facility, which has a Readiness Mechanism devoted to capacity building. The EU welcomes these and other bilateral and multilateral activity undertaken to the same end.

2.4.3 In relation to further efforts

The criteria discussed under 2.4.1 and 2.4.2 apply, and in addition further efforts that constitute demonstration activities should be reviewed in the light of the indicative guidance set out in the Annex to the Decision. The EU notes that stakeholders, including local communities and indigenous peoples, should be involved from the outset and not just during the assessment period.

2.4.4 In relation to mobilising resources

EU recognizing the need for effective mobilisation of resources and welcome all efforts to this end. Success in mobilising resources should be assessed not only in terms of amounts of money transferred but also against the criteria set out in 2.4.1 to 2.4.3.

3 Conclusions

The EU has emphasised the need to include concrete policies and actions to reduce emission from deforestation in developing countries as part of a comprehensive post-2012 agreement, and identified the need to halt these emissions and reverse them within the next two to three decades. We shall not, in the EU's view, succeed in limiting global warming to 2C without efforts in all sectors. This includes action to reduce emissions from deforestation and forest degradation. The EU considers that the deforestation Decision in Bali, which contains a cross-reference to the Bali Plan of Action, provides the necessary framework to achieve this. A submission on methodological issues is not, in the EU's view, the place to discuss issues such as sources of support for positive incentives to reduce emissions but the EU notes that a sound methodological approach, such as that outlined here, would be a prerequisite for success in mobilising sufficient funding for this.

PAPER NO. 11: SRI LANKA

Item 14. Reducing Emission from Deforestation in Developing Countries: Approaches to stimulate Action. Referred to in document FCCC/SBSTA/2007/L.23/Add.1/Rev.1, paragraph 7a

1. The Government of Sri Lanka is of view that REDD should not be restricted to reducing deforestation. It is necessary that REDD encompass more sustainable and effective objectives with relation to Carbon stocks, and hence conservation of forests should be considered more strongly in accordance with the para ib (iii) of the Bali Action Plan.

Though the decisions in FCCC/SBSTA/2007/L23 Add. 1/Rev 1 recognizes past efforts of developing countries in conservation, there are no provisions to compensate the opportunity cost forgone.

This indirectly pushes developing countries towards deforestation in pursuing their pressing and urgent economic development goals.

Therefore, Sri Lanka would like REDD to include methodologies to assess values of conservation of highly productive tropical forests as well as the value of increasing forest cover in accordance with para 1b of the Bali Action Plan.

2. Sri Lanka views Remote Sensing and Satellite Imaging as appropriate methodologies for assessment of changes in forest cover and associated Carbon stocks. However, issues faced by low income countries like Sri Lanka in implementing REDD projects due to lack of resources for carrying out such high-tech methodologies needs to be resolved.

Furthermore, it is necessary to identify possible methodologies to compensate the opportunity cost of conservation of forests as against using them for developmental activities. The efforts of developing countries in increasing forest cover as well as attempts at sustainable management of forests needs to be considered.

3. Sri Lanka feels that REDD should provide the same incentive for Carbon saved and Carbon added. Accordingly we suggest that REDD determines on a one-time payment of 'Baseline Stocks' as an incentive to keep these important sinks intact, amidst high drivers for deforestation.

As such, provisions are needed in REDD for compensated conservation, while technological and financial assistance are needed for determination of baseline stocks.

SWITZERLAND

SBSTA
Forest Sector Governance as a prerequisite for successful REDD activities

The SBSTA, at its twenty-seventh session (Bali, 3-11 December 2007) invited Parties to submit to the Secretariat, by March 2008, their views on how to address outstanding technological issues relevant to reducing emissions from deforestation in developing countries (FCCC/SBSTA/2007/L.23/Add.1/Rev.1, paragraph 7a).

Switzerland is pleased to provide this submission in response to that invitation. We recognize the significant progress made at COP13 in this matter, especially with the initiation of the demonstration phase and the launching of the Forest Carbon Partnership Facility (FCPF), which received significant contributions from many countries, including Switzerland.

Switzerland believes that an intensive cooperation and sharing of tasks between global and regional, national, sub-national, and local actors, as well as cross-sectoral cooperation is key to the successful implementation of REDD activities. In this context, emphasis should not only be given to deforestation, but also to biomass degradation within forested areas. Studies have shown that a considerable amount of emissions is generated within forested areas and fall under the category of forest degradation. Thus, reducing emissions in the land-use context should not only address deforestation *per se*, but also degradation of carbon stocks within forests (REDD).

At the present stage priorities should be given to demonstration activities aiming at developing strategies that address forest sector governance and the integration of forest mitigation options, including REDD, in sustainable forest management.

The creation of incentives for strengthening the effective participation of all stakeholders, notably of non-state actors from civil society and private sector and indigenous people in REDD activities, will not only help reduce unsustainable forest management practices and combat illegal logging and unauthorized land use change, but will secure the provision of other services provided by forests and will contribute to create the necessary capacities to responsibly manage forest resources.

A number of forest sector-based initiatives provide a platform to share experience on Forest Sector Governance practices and derive lessons to tackle the governance challenges which lie at the core of a successful REDD implementation. Most relevant in this context besides FCPF are the Forest Law Enforcement and Governance Processes (FLEG) of the World Bank, the work conducted by IUCN and the Swiss Foundation for Development and International Cooperation in the framework of the Rights and Resources Initiative and programmes conducted under the auspices of the International Tropical Timber Organization (ITTO) as well as the Country Lead Initiatives on Forest Governance in support of the UNFF – which includes the regional Workshop on Forest Governance and Decentralization for Africa, initiated by South Africa and Switzerland, to be held in Durban, South Africa. The Durban Workshop is a follow up of the UNFF Interlaken Country Lead Initiative initiated by Indonesia and Switzerland held in 2004 in Interlaken, Switzerland, on Decentralization in Forestry (E/CN.18/2005/10).

PAPER NO. 13: UNITED STATES OF AMERICA

Submission of the United States
Response to FCCC/SBSTA/2007/L.23/Add.1/Rev.1, paragraph 7a

Views on how to address outstanding methodological issues related to reducing emissions from deforestation in developing countries

The United States appreciates the invitation to submit views on how to address outstanding methodological issues related to Reducing Emissions from Deforestation in Developing Countries (REDD). We anticipate the SBSTA, over the coming year, will make progress on the methodological challenges of measuring, reporting, and verifying emissions from deforestation and forest degradation.

Our submission includes substantive elements the U.S. considers important for Parties to address at the SBSTA in Bonn, and in the workshop following hosted by Japan. We seek a work program on methodological issues that provides opportunities to learn from a variety of practical national and sub-national experiences in reducing emissions from deforestation, and anticipate ongoing demonstration activities will inform our deliberations over the following two years. We recognize there is a tight timeline for resolving outstanding REDD methodological issues, as the topic of REDD will be considered by the Ad Hoc Working Group for Long-term Cooperative Action.

We also recognize that significant work already has been accomplished under the IPCC and believe the appropriate methodological starting point for both national and project based approaches for this work program should be consistent with the IPCC Good Practice Guidance for LULUCF. All Parties in a position to do so are also encouraged to gain experience with the 2006 IPCC GHG Inventory Guidelines.

The issue of REDD methodologies and national capabilities are linked. Therefore, this submission includes a recommendation for what the U.S. believes is a critical first step in our work program—conducting a needs assessment to identify capacity building needs and data availability for key countries and regions.

General Views

Decision-making and assessment will vary based on the scale of implementation for REDD activities. The technical work program should address how both assessment and decision-making will vary based on scale of implementation for each of the technical/methodological issues. The work program should also evaluate and identify those issues that may be unique to a particular scale and how the issue should be addressed. At a minimum, the scales that should be dealt with are national and sub-national, the latter including both regional/State level and project scale. This would include policies and/or programs that could be implemented at any of these scales.

It is also the United States' view that a comprehensive approach for measuring and monitoring greenhouse gas fluxes associated with the AFOLU sector leads to increased environmental integrity. In particular, such a comprehensive approach helps to address both definitional issues and accounting for displacement of emissions. A comprehensive approach to land use data collection also builds the information systems and institutional structures that will enable countries to manage natural resources for sustainable development, including the ability to respond and adapt to changes in environmental and economic conditions. Therefore, REDD should be assessed within such a comprehensive framework, as appropriate to national circumstances and scale of decision-making and implementation.

Methodological issues

There are a number of technical/methodological issues that must be examined as part of the technical work program. Though issues have been discussed during previous workshops and negotiations, the technical work program called for in COP-13 allows Parties the opportunity to propose a program of work to effectively advance resolution of these issues, providing more guidance and certainty to pilot efforts to reduce emissions from deforestation and degradation, implement or enhance sustainable forest management, and other efforts related to forest conservation. The United States has, as have a number of other Parties, emphasized the need for methodologies and monitoring for REDD to be based on IPCC guidance for the LULUCF sector. The technical work program should build off of this platform.

Data Collection, Measurement, and Reporting

Comparable, periodic, and scientifically rigorous inventory and monitoring data, measuring changes in carbon stocks, are critical to the success of any future REDD mechanism. Such data systems inform climate mitigation strategies, land use policy decisions (at multiple geographic scales), and provide assurance to the international community about the effectiveness of mitigation and adaptation activities. This poses both challenges, and opportunities for developing countries interested in participating in a potential REDD mechanism.

Systems developed by countries to provide data on REDD will likely vary depending on national context and efforts to date at collecting land use and forest data. Frameworks that use criteria and indicators[1] and other assessment tools will be useful for creating rigorous and comparable inventory and monitoring systems for REDD implementation and assessment.

Definitional issues

Inconsistency in land use definitions, including the definition of forests, makes it difficult to compare datasets, hindering the usefulness of the data. In turn, this hampers the ability to assess trends, and link changes in land-use to policy or management decisions. Definitional issues should be examined as part of the technical work program. Broad options for resolving definitional issues were identified at the Rome workshop. These options can and should be used as a basis for evaluating definitional issues within the framework of the technical work program. The definitional options recorded in the Rome workshop report (FCCC/SBSTA/2006/10) are as follows:

(1) use of existing forest and forestry related definitions
(2) development of new definitions
(3) modification of existing definitions to facilitate a more consistent approach
(4) adopting a range of definitions, taking into account varying implications dependent on national circumstances.

The work program could assess the implications of choosing each of these broad options. For example, adopting a general, but consistent definition for a relevant activity, such as the general UNFCCC definition of deforestation as “the direct, human-induced conversion of forested land to non-forested land” does not necessarily address the inconsistencies among countries in defining the forest crown cover thresholds differently. With varying thresholds, countries would record deforestation at different points, raising the potential issue of comparability.

[1] Criteria and indicator (C&I) processes, such as the Montreal Process and under the International Tropical Timber Organization, offer common international frameworks for monitoring and reporting on sustainable forest management. C&I frameworks have been adopted by over 150 countries, and are now reflected in national reporting to many international institutions, such as the FAO Global Forest Resources Assessment, the UN Forum on Forests and other member organizations of the Collaborative Partnership on Forests (CPF).

As another example, applying a consistent definition for "forest" excludes variability in ecological conditions and differing perceptions of forests. For forest degradation, a clear definition or set of definitions within the REDD context are particularly necessary. The IPCC definition for degradation as "a direct, human-induced long-term loss (persisting for X years or more) of at least Y% of forest C stocks (and forest values) since time T and not qualifying as deforestation" would require specifications for C loss thresholds, minimum area affected, and defining "long-term" in order to be operationalized. To date, there has been no detailed discussion of what Parties are referring to, in terms of scope and cause, when using the term "forest degradation" within the REDD context.

Reference Emissions Levels

Options for addressing the effectiveness of actions, and the implications of various options to do so—including historical assessments and/or projections—need to be examined and evaluated in more detail. Though a single, consistent method for estimating reference emissions would not necessarily be feasible across scales of projects or across countries, it has been demonstrated that applying different methods for developing reference emissions levels to REDD projects at the same scale can lead to substantially variable results. Addressing this issue will improve the likelihood of having projects and programs measured against credible, comparable and transparent reference levels.

Displacement of emissions

Displacement of emissions, or leakage, is a key methodological issue associated with REDD at the project/sub-national scale, but can also occur with national level accounting. A focus of the work program should be assessment of the relative importance of leakage and discussion of options to address leakage at a variety of scales.

Estimation of Forest Carbon Stocks and Fluxes

Further research and analysis on estimation of forest carbon stocks in tropical countries would be a useful product of the technical work program. Specific areas of work that could be addressed include variability in biomass among forest types and data availability for the changes in C stocks due to fires in tropical forests. Studies on how C fluxes vary based on severity and extent of fire are limited.

Measurement/Monitoring of Degradation and Sustainable Forest Management

There are a number of monitoring issues specific to forest degradation and incremental sustainable management. Though it has been demonstrated that remote sensing approaches combined with forest inventory data collection can be applied to deforestation, research has not shown that incremental changes associated with degradation and changes in forest management can be captured accurately solely through remote sensing techniques. In order to capture regrowth, and therefore the net flux of such activities, repeated survey sampling is required. Research has not demonstrated that incremental changes due to these two activities are sufficient to produce reliable pattern changes in remote sensing imagery, thereby allowing a basis to estimate changes in carbon stocks. Methods for estimating the carbon effects of and monitoring forest degradation are a key area for further analysis. In particular, monitoring methods for small-scale degradation in the form of over-exploitation of fuel-wood coupled with the animal grazing that often follows could be advanced under the work program. This is an area in which very little work has been done, in terms of the carbon impacts of such activities.

<u>Needs Assessment</u>

It is the United States' view that a comprehensive needs assessment would be an extremely valuable initial step for the technical work program. A number of capacity-building needs have been highlighted in the REDD negotiations, as well as by the scientific community. These include access to data, as well

as development of in-country technical skills like visual interpretation of remote sensing imagery or forest field survey methods.

The U.S. has demonstrated through national greenhouse gas inventory capacity-building efforts in Central America that it is possible to effectively evaluate data and capacity needs for assessing greenhouse gas emissions associated with the AFOLU sector in developing countries, address those needs and create rigorous and cost-effective monitoring systems, using a combination of remote sensing technology, ground-truthing, and land surveys. This foundation work is now being used as a model in Southeast Asia. This includes adapting the tool that USAID/EPA developed in Central America to conditions in Southeast Asia. This tool converts information on land use changes into greenhouse gas emissions data. The FAO has also prepared an initial report in November 2007 discussing the capabilities of countries currently engaged or interested in inventory assistance from that institution. The report highlighted that the systems currently used for forest inventories are often limited and vary considerably for different Parties. These efforts may be looked to as a foundation for assessing and addressing needs in a variety of regions and may be built upon to contribute to REDD.

The United States requests the Secretariat conduct a needs assessment built upon but not limited to those projects and studies described above. Such an assessment, in order to be valuable and lead to progress under the work program, should be completed by the Fall and the results presented by the Secretariat at the following meeting of the SBSTA.

PAPER NO. 14: VANUATU

Outstanding Methodological Issues – REDD

Views of Vanuatu

March 2008

Mandate

UNFCCC Decision -/CP.13 (Reducing Emissions from Deforestation in Developing Countries: Approaches to Stimulate Action) calls for submissions from Parties on methodological issues to feed into a SBSTA work programme on this theme. The specific mandate for submissions is contained in the text of this Decision whereby The Conference of the Parties:

> 7. *Requests* the Subsidiary Body for Scientific and Technological Advice to undertake a programme of work on methodological issues related to a range of policy approaches and positive incentives that aim to reduce emissions from deforestation and forest degradation in developing countries noting relevant documents; the work should include:
>
> (a) Inviting Parties to submit, by 21 March 2008, their views on how to address outstanding methodological issues including, inter alia, assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions, incremental changes due to sustainable management of the forest, demonstration of reductions in emissions from deforestation, including reference emissions levels, estimation and demonstration of reduction in emissions from forest degradation, implications of national and subnational approaches including displacement of emissions, options for assessing the effectiveness of actions in relation to paragraphs 1, 2, 3 and 5 above, and criteria for evaluating actions, to be compiled into a miscellaneous document for consideration at the Subsidiary Body for Scientific and Technological Advice at its twenty-eighth session;

The Government of Vanuatu welcomes the opportunity to express its views on outstanding methodological issues associated with REDD policy development at the UNFCCC. This provides an opportunity to share its recent experiences in building capacity for REDD readiness, indicate where it needs further support, and highlight priorities for countries in a similar situation. The Government of Vanuatu provides these views in addition to the submission by the Countries of the Coalition for Rainforest Nations with the goal to provide more details on specific national achievements and objectives for achieving REDD readiness and foster dedicated implementation activities.

Rationale

UNFCCC Decision -/CP.13 (Reducing Emissions from Deforestation in Developing Countries: Approaches to Stimulate Action) recognises and affirms the need for urgency and pragmatism in (a) reducing deforestation and forest degradation, (b) the conservation of forests, and (c) the increase of existing forest carbon stocks through sustainable forest management. Vanuatu recognized potential opportunities in all these areas contributing to climate change mitigation.

Vanuatu recognizes the special role of developing countries in contributing to the problem through deforestation at the current stage in history, but also that there is an opportunity for a global solution to the deforestation problem if the UNFCCC addresses this issue with the energy this issue deserves. One of the reasons for this relates to the loss of not only carbon

from world forests but also of innumerable ecosystem services provided by natural forests – many of which are climate-related.

Policies and incentive mechanisms need to be developed that are capable of having a real and permanent effect on the loss of carbon sinks and reservoirs in this sector. To be “real” such activities need to be of a sufficient scale to be detected in local, national and global carbon stock and carbon emissions monitoring systems (measurable and additional). To be “permanent” these activities need to involve a change in the deforestation/degradation development pathways in a locality, district, or country. Such a change in the development pathway is enabled by a shift or removal of the socio-economic and political drivers of deforestation/degradation in those (and often neighbouring) localities.

The removal of these drivers becomes possible only when the local and national political economy “accepts” an alternative development pathway. Such acceptance will only occur if/when a climate-friendly development option is perceived by local political and economic actors to be genuinely capable of delivering core development goals (as defined by those actors), at least as effectively as the Business As Usual path.

Accordingly, it is crucial (from a pragmatic point of view) that climate-friendly development options in forested nations are designed to deliver substantial core and co-benefits to resource owners. The challenge for the development of a robust REDD policy platform, therefore, is to provide a pragmatic and enabling (rather than prescriptive) framework to successfully integrate a set of different and sometimes competing realities.

Vanuatu Carbon Credits Project

The Government of Vanuatu has recently developed a programme for climate-friendly sustainable development called the Vanuatu Carbon Credits Project (VCCP). This followed a request in May 2006 by the UNFCCC SBSTA Chair and negotiating Parties for pilot projects to inform intergovernmental policy development on Reducing Emissions from Deforestation in Developing Countries.

The purpose of this project is to:

a. build capacity to assist Vanuatu to gain access to carbon and ecosystem services finance for climate change mitigation and sustainable development in the forest and energy sectors, and
b. inform international policy development as a consequence of demonstration/pilot activities

The Vanuatu National Advisory Committee on Climate Change (NACCC) is the Governing Board for the VCCP and project owner. The NACCC has engaged an international technical advisory team to assist the VCCP in design, technical and international policy matters.

Phase 1 of the VCCP is complete and focused on activities for the evolution of a national forest carbon emissions estimation and accounting system, and the development of potential national and sub-national implementation activities. Efforts included project establishment, design, building initial stakeholder relationships, project governance structures and operational procedures, capacity building, national forest area change assessment, socio-economic good practice guidelines, and international policy.

The REDD related monitoring in Vanuatu follows an approach advocated in the IPCC Good Practice Guidelines (2003 and 2006) of deriving the area of deforestation (from satellite data) and changes in carbon stocks (primarily from ground data). Progress was made in terms of the deforestation activity data by developing a historical satellite image database for three time

steps (data from 1990-2000-2005 [+- 2 years]) exploring Landsat, SPOT, and ASTER archives. A full coverage is available for these three time steps for all Vanuatu's land areas with some constraints in areas of persistent cloud cover (~10-20% of area not available for change analysis). An assessment of gross deforestation area for the period 1990-2000 has been completed. The results indicate comparatively low rate of historical deforestation for Vanuatu with at least half of the observed forest loss being due to subsistence land use. Forest degradation has been an issue and will be addressed in the next phase of developing the monitoring system.

Estimating the area of deforestation in Vanuatu, currently, relies on satellite observations. For 1990-2005 such data have been available for no or low cost, and Vanuatu encourages countries maintaining satellite observation and pre-processing systems, and in a position to do so, to help to provide continuous and consistent satellite image data suitable to support a national forest monitoring using the IPCC reporting guidelines.

The completion of Phase 1 was marked by a national VCCP Phase 2 Roadmap Workshop held in February 2008. Outcomes of the Workshop included:

- Establishment of DNA (Designated National Authority) and recognition of need to design approval criteria and procedures as a core aspect of further institutional capacity building,
- MOU with International Technical Advisory team to set up a partnership with the Vanuatu government having full ownership of the activities and results,
- Definition of a set of priorities for national forest monitoring (details below)
- Development of an operational roadmap for Phase 2, including a number of potential pilot types.

The Government of Vanuatu has developed the following set of priorities for capacity building and seeking international support for REDD readiness and implementation:

Forest priorities	**Carbon credits dimension / REDD issues and opportunities**
National forest inventory: ➢ Some useful existing data and experiences ➢ Goal: full national inventory of forest resources	• Capacity building • Improve REDD readiness with full carbon stock assessment • Include remote sensing area change for historical emissions estimates (See below on "Vanuatu REDD Monitoring System Proposal")
Conservation activities: ➢ Some existing, some to be initiated, some proposed ➢ Guidelines for monitoring and management	• Carbon credits pilot projects on "avoiding deforestation", • e.g. for high at risk/concession areas (pilot type 2) • e.g. Erromango Kauri/Sandalwood tree conservation area (pilot type 1) • Evolve national monitoring system • Inventory of existing and proposed of conservation areas
Production forestry/plantations: ➢ Focus on indigenous/local tree species ➢ Production of biofuels	• CDM A/Reforestation projects to increase forestry/carbon sequestration/biofuel production capacities (pilot type 3) • Reuse invasive species plantations: Cordia Alliodora plantations / link to bioenergy (pilot type 4) • Monitoring/quantification of forest "sink" capacities
Research on Agroforestry	• Establish an Agroforestry unit and boost

	agroforestry capabilities in the Department of Forests • CDM projects for sustainable land use (of degraded forest area)with link to energy production • i.e. Butmas case of Agro-silvopastural project and potential link with avoiding deforestation (pilot type 5)
Institutional capacity to engage in climate change issues	• REDD national monitoring capacity • Capacity building, support and participate in national/international policy development • Multiple benefits of improved forest monitoring
National forest policy to accommodate climate change issues	• Vision of "Carbon Neutrality" and role for forest sector • Option for climate change mitigation masterplan for Vanuatu • Role of forests/forestry in nationwide land use planning

The establishment of a national forest monitoring system for estimating forest area change and associated carbon emissions will provide the basis for Vanuatu's REDD participation, and accounting and reporting framework. Progress has been made in the forest area change assessment. Capacities to estimate carbon stocks and carbon stock changes are currently weak, and Vanuatu intends to start with rather uncertain but conservative estimates (Tier level 1 and 2) and improve the estimations over time. Vanuatu is open to support from the international community to further establish a national level REDD relevant monitoring and carbon accounting system for the forest sector. More specifically, the Vanuatu REDD monitoring system improvement includes a number of proposed actions:

Overall monitoring objectives:

1) Finalize and consolidate 1990-2000-2005 national deforestation assessment from satellite data (incl. accuracy assessment)
2) Build Vanuatu's capacities to establish within country satellite data processing and analysis (incl. associated field surveys)
3) Complete project-based and national carbon stock and emissions assessment based on UNFCCC/IPCC Good Practice Guidelines
4) Support national and international policy development including joint benefits with other development priorities and ecosystem services

The detailed work items include:

Objectives 1 and 2:

- Complete national 2000-2005 change and beyond:
    - Establish pilot areas for cooperative change assessment and field surveys, while full national monitoring to be completed by international partners
    - Building Forestry Department capacities (interpretation training, hard/software, field surveying and assessment)
    - Sample areas to study degradation and associated emissions
    - Test cases overcome known remote sensing challenges (cloud cover)
    - Study historical deforestation processes & drivers
    - Accuracy assessment

Objective 3:

- Inventory of available/historical carbon stock data (for potential level Tier 2 estimations):
    - Ongoing national forest monitoring regularly done by Forestry Department

    - Existing forest inventories (date, focus)
    - Ecological monitoring plots
    - Biomass plots
    - Project studies with field samples
- Thorough approach for REDD relevant carbon stock assessment:
    - Planning and implementation of a national/project-level forest carbon inventory
    - Build capacities for Vanuatu to conduct such surveys in the future
- Apply IPCC Good Practice Guidance for carbon emission estimations:
    - Start with suitable Tier-level and improve system over time

Objective 4:

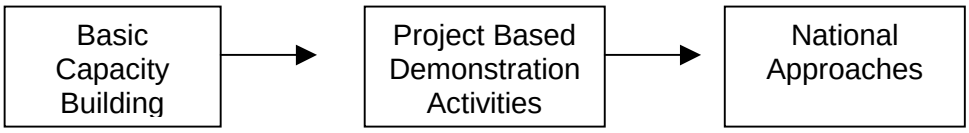
- Link REDD policy development and national monitoring capabilities
- Support UNFCCC input and negotiations
- Build institutional capacities:
    - Climate change data infrastructure (data assimilation/dissemination)
    - Joint benefits with development priorities and ecosystem services and international reporting requirements (UNFCCC, FAO/FRA etc.)

In addition, Vanuatu has identified opportunities to start dedicated pilot implementation activities with potentials to reducing emissions from deforestation and forest degradation, for the conservation of forests, and the increase of existing forest carbon stocks through A/R.

Outstanding Issues

The Government of Vanuatu wishes to point out that methodological issues are closely linked to the design of policy instruments – each of which have different methodological implications. It is difficult to comprehensively define methodological challenges without clear guidance on the incentive mechanisms that such methodologies are supposed to support. For this reason it seems important that the UNFCCC develop some lowest common denominators in both the policy and the methodological arenas in order to progress negotiations. Such lowest common denominators may include the minimum methodological requirements needed for countries to participate in UNFCCC supported incentive mechanisms.

It is also important to define a process of progression in REDD sector capacity building that may be linked to different types of incentive mechanism:



This can take into account the different stages in REDD Readiness a country might be and help to define the most appropriate form of support for countries wishing to address REDD in practice. It is also important to develop a framework that is capable of fully accommodating the stage a country might be in the loss of carbon stock from forests.

Vanuatu believes it is important to avoid attempting to design a single overarching mechanism that attempts to do all things possible in the REDD management space. Instead Vanuatu believes that it is a priority for the UNFCCC to provide an enabling environment for a shift in the drivers of deforestation and forest degradation in a non-prescriptive manner that takes adequate account of preference of governments.

Linking Methodologies with Policy Instruments

Vanuatu has been exploring the development of policy instruments compatible with its national circumstances. These have been presented in an earlier submission (2007) and include a project based mechanism (the Carbon Stock approach), a sectoral mechanism (Sectoral Crediting Baselines), and a national mechanism (Direct Barter). Each of these approaches have different methodological implications which are being examined by Vanuatu along with others being developed in other countries.

The Vanuatu situation has shown that it is useful to consider how national level and nested project level commitments around baselines could be denominated in carbon stocks (versus just deforestation emissions and/or degradation emissions per se). This may provide a wider set of opportunities for sustainable forest management including agroforestry and timber plantations (i.e. a REDD programme could then integrate carbon sink elements of activities as well, rather than forcing the need to frame these separately as A/R). This is particularly relevant to the design of programmes capable of transforming the economic drivers of deforestation at the local and national level.

National Forest Monitoring

Underlying any incentive mechanism is the need for a number of basic forms of capacity building in the form of national forest monitoring and carbon stock assessments. It is important that countries without a national forest monitoring system gain access to both funding and technical support to undertake this monitoring as a first step in REDD Readiness.

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