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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION UNDER THE CONVENTION
Third session
Accra, 21–27 August 2008

Agenda item 3 (a–e)
Enabling the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012, by addressing, inter alia:
A shared vision for long-term cooperative action
Enhanced national/international action on mitigation of climate change
Enhanced action on adaptation
Enhanced action on technology development and transfer to support action on mitigation and adaptation
Enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation

Ideas and proposals on the subjects of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention workshops scheduled for 2008

Submissions from Parties

Addendum

1. In addition to the three submissions contained in document FCCC/AWGLCA/2008/MISC.4, seven further submissions have been received.

2. As requested by the AWG-LCA, these submissions have been posted on the UNFCCC website.[1] In accordance with the procedure for miscellaneous documents, they are attached and reproduced[2] in the language in which they were received and without formal editing. The secretariat will continue to post on the relevant web page the submissions received after the issuance of the present document.

[1] <http://unfccc.int/meetings/items/4381.php>.

[2] 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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PAPER NO. 1A: AUSTRALIA

Cooperative sectoral approaches

Submission to the AWG-LCA and the AWG-KP

Australia supports consideration of cooperative sectoral approaches to reducing emissions under both the Ad hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) and the Ad hoc Working Group on Long-term Cooperative Action (AWG-LCA).

Australia welcomes the conclusion of the AWG-KP at the resumed fifth session "that approaches targeting sectoral emissions could be used by Annex I Parties as a means to reach, but not replace, their emissions reduction targets". This outcome accords with Australia's initial submission on sectoral approaches (KP/AWG/2008/MISC.1/Add.2).

Parties which adopt fixed national emission reduction targets set a binding economy-wide constraint in the form of an assigned amount of emissions. Given the relative stringency of national targets over other forms of mitigation policies, there is no compelling rationale for those Parties that take such targets to adopt subsidiary binding international commitments, including targets, for individual sectors already included within their economy wide commitment. Sectoral targets are subordinate, and not additional, to economy-wide national targets adopted under the UNFCCC or Kyoto Protocol.

Where Parties do not adopt a binding national target as part of the post-2012 outcome, there may be scope for these Parties to commit to binding actions based on cooperative sectoral approaches.

Sectoral approaches offer several advantages:

1. Existing initiatives, such as the Asia-Pacific Partnership for Clean Development and Climate, suggests that such approaches can expedite the research, development and diffusion of low-carbon technologies and sector-specific expertise between countries and regions;

2. Collaborative activities may lower transaction and risk-associated costs and provide attractive incentives for private sector investors;

3. Sectoral collaboration can help build capacity between Parties facing similar challenges; and

4. Given that technological advancement and expertise in many sectors will vary from country to country – often irrespective of Annex I and non-Annex I status – collaborative sectoral approaches can facilitate joint R&D and enable world's best practice to be applied across a given sector.

International Maritime and Aviation Emissions

Australia considers that sectoral approaches are important for dealing with emissions that cannot be attributed to any particular economy, and that multilateral collaborative action is the most appropriate means to address emissions from the international aviation and maritime sectors. The International Maritime Organisation (IMO) and the International Civil Aviation Organisation (ICAO) should continue to develop effective sectoral approaches towards international maritime and aviation emissions respectively as a matter of priority.

PAPER NO. 1B: AUSTRALIA

Reducing emissions from deforestation and forest degradation in developing countries

Submission to the AWG-LCA

This submission provides views from Australia on the matter of Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD).

REDD is crucial to reducing global greenhouse gas emissions as this sector contributes almost twenty percent of global emissions. The post-2012 outcome should adequately address emissions from REDD in a manner that is fair, environmentally effective and economically efficient.

Australia considers that REDD will be most effectively and sustainably addressed through market-based mechanisms. Although REDD may be one of the most cost-effective means to reduce emissions in the short term, the scale of resources required is beyond the means of governments alone[3]. We must find a way to facilitate the involvement of the private sector in REDD, with a premium placed on developing mechanisms that are credible and sustainable.

There are a number of ways to advance REDD in the post-2012 outcome in a measurable, reportable and verifiable manner:

- Develop incentives to support developing countries in their efforts to address REDD;

- Design policy approaches that:

  - Are flexible to enough to support different national REDD frameworks and are sensitive to national circumstances, given causes of deforestation differ between countries;

  - Deal with issues such as permanence, additionality and leakage;

  - Do not penalise Parties for taking action on REDD now;

  - Place a priority on achieving emissions reduction, whilst maximising the co-benefits of action to address deforestation.

- Establish credible institutional and methodological conditions that are independently verified to provide Parties and investors with confidence, including:

  - appropriate national level governance, policy, law enforcement and regulatory frameworks in host countries; and

  - robust forest carbon monitoring and accounting systems applied to provide robust, reliable, timely and transparent information.

The AWG-LCA should explore a range of actions and identify options for developing REDD, including:

- how demonstration activities can best inform policy discussions on REDD. Lessons learned from these demonstration activities should be shared freely between Parties; and

[3] While estimates of the cost of addressing REDD vary, Sir Nicholas Stern has estimated that an annual investment in the order of $10-15 billion would be needed to halve the rate of global deforestation.

- determining the opportunity costs of addressing REDD. A thorough and balanced analysis of opportunity costs will be crucial to the success of our endeavours to reduce emissions in this sector.

Australia has commenced activities to trial approaches to REDD. Australia's $200 million International Forest Carbon Initiative is already supporting international efforts to reduce deforestation and forest degradation. A central element of this is the Initiative's focus on developing practical demonstration activities in our region, particularly in Indonesia and Papua New Guinea.

Additional workshop

Australia considers that two workshops on REDD in 2008, while useful, will not be sufficient to resolve the many issues that are under discussion. An additional workshop would provide an opportunity for further discussions on outstanding policy and technical issues, such as leakage, permanence and additionality.

Australia understands that this workshop would put pressure on the resources of some Parties, and is willing to consider options for supporting this workshop.

PAPER NO. 2: INDONESIA

Sectoral approaches

SUBMISSION BY INDONESIA
Jakarta, '10 August, 2008

Third session of the Ad Hoc Working Group on Long-term Cooperative Actions under the Convention (AWG-LCA 3)

21-27 August 2008

Subject: Sectoral Approaches

Background

Indonesia welcomes the opportunity to submit the views to ensure the achievement of the objectives of the Convention. There is a concern to elaborate further the global efforts to reduce GHG emission in achieving the target for the stabilization. Sectoral approach could be viewed as a complement instrument to reduce the emission as address in Decision 1/CP.13-Bali Action Plan, paragraph 1(b)(iv) to enhance the implementation of Article 4 (1)(c) of the Convention.

However in introducing sectoral approach as one of the proposed elements of the climate change policy there are several issues that need to be considered, such as social and economic conditions and other relevant factors at national level Since there are still some different perception on this issue, then a focused discussion is required and should be directed to assess the possibility of sectoral approach application as climate change complement instrument in formulating further the principle common but differentiated responsibilities and respective capabilities.

Overall objectives on Sectoral approach

- Derivation on sectoral approach with the appropriate guidelines that could contribute to exploring further mitigation efforts and strengthen the international technological cooperation and transfer of technology.
- A sector based mitigation effort will lead to effective and efficient mitigation by sector based actions as well as by cross border sharing of Best Available Technologies/Best Practices (BATs/BPs), and in accordance with common but differentiated responsibilities and respective capabilities. Furthermore, it is hope that it will also strengthen the cooperation not only on the technological aspect but also on the financial aspect between Parties based on the principle guideline for implementing sectoral approach.
- A complement instrument that will formulate further the principle common but differentiated responsibilities and respective capabilities.
- Shall contribute in achieving the ultimate objective of the Convention as a part of Shared Vision.

Basic Principles

- Should take into account the social, economic condition and other relevant factors at national level.

- Should be a complement tools in formulate further the principle common but differentiated responsibilities and respective capabilities.

Guiding principles

- Enhancing the implementation of Article 4, paragraph 1(c) of the Convention.
- Complementing instrument for climate change in formulate further the principle of common but differentiated responsibilities and respective capabilities and taking into account social and economic conditions and other relevant factors.
- Bottom up analysis of mitigation potentials that can be useful tools for calculating reduction targets and can provide scientific and objective knowledge that contribute further to the formulation of an effective future regjme.
- Not intended to be used for quantification of national target. lt should complement, rather than replace national strategies and mid term goals.
- Not trying to apply the uniform standard for developed and developing countries equally.
- As analytical tool to inform national mitigation efforts depending on the capabilities of each sector, but not to replace the national targets.
- Should not lead to commitments for non Annex I Parties and constitute a means for unjustifiable discrimination or disguised restriction of access for non-Annex I parties to international trade.
- Should contribute in enhancing the measurable, reportable and verifiable actions to ensure the environmental integrity.

Next to be elaborated further in Accra

Indonesia recognizes that there is a lot of different perceptions and concern around the conceptual definitions of sectoral approach. lt is therefore believes that further discussion would benefit from having agreement and clarity on key principles in how sectoral approaches could be implemented by Parties.

ln Accra Indonesia would therefore like to focus the discussion on the following issues:

- Definition of sectoral approach and its integration under the Convention;
- Further clarification of the meaning of "cooperative sectoral approach" in Bali Action Plan paragraph 1(b) (iv) and its derivation including its required elements;
- How common but differentiated responsibilities (CBDR) and respective capabilities (RC) could be reflected in transnational agreement on global sectoral approach;
- Introduction of sectoral approach within the global market;
- Introduction of sectoral approach outside the global market;
- How is the derivation of MRV to be adapted in sectoral approach
- Further elaboration to define the required associated instruments for the implementation of sectoral approach;

With this respect Indonesia would therefore like to explore further the sectoral approach be a part of a future agreement to enhance mitigation efforts and enhance the financial and the technology collaboration between Parties.

PAPER NO. 3: JAPAN

Reducing emissions from deforestation and forest degradation in developing countries

Submission on REDD

The Government of Japan submitted the document below as submission regarding the paragraph 1 of the Bali Action Plan in May 2008;
http://unfccc.int/files/meetings/ad_hoc_working_groups/lca/application/pdf/submissionjapan.pdf

In addition to this submission, Japan would like to issue 5 submissions which include updated information on the following issues.
(1) Global long-term goal
(2) Innovative technology development
(3) Commitments or actions by developed countries and actions by developing countries
(4) Sectoral approach
(5) REDD

In this submission, the Government of Japan outlines its view on 'REDD'.

The proportion of the emissions from deforestation and forest degradation, which is said to be nearly 20 percent of the global anthropogenic carbon dioxide emissions, indicates the significance, urgency and necessity of the promotion of the "reducing emissions from deforestation and forest degradation in developing countries" (REDD) activities. In this context, the issue of REDD could be considered to have more urgency than "conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries".

The SBSTA REDD methodology workshop hosted by Japan in June produced fruitful outcomes, and contributed to promotion of sharing the common image of REDD activities among experts of Parties. The output of the workshop indicates that the robust methodologies are indispensable regardless of the choice of policy approaches. Japan believes that the output of the workshop will also contribute to the discussion of the policy workshop during the AWG-LCA3 in Accra.

The followings are some ideas of Japan and its proposals for further consideration on the issues relevant to REDD.

1. When considering implications of choices of policy approaches, it will be useful to take into account the experiences from preceding activities including those outside of the convention process in order to draw feasible conclusions.
2. An appropriate and transparent distribution of benefits from REDD among stakeholders, including local communities, is necessary in order to achieve sustainable reduction of emissions under the perspective of sustainable forest management.
3. The issue of social implications to the indigenous people and local communities should be appropriately addressed.
4. Introduction of market mechanism to REDD activities needs careful consideration, taking into account the balance between the robustness of the methodologies and the impact of the market linkage.
5. In parallel with these considerations of the above policy aspects, the consideration on definitional issues on degradation of forest and so on is needed as a next stage.

6. In the post 2012 framework, the afforestation and reforestation clean development mechanism (AR-CDM) or alike should be improved in the process placed under the broader context of the consideration on the whole flexibility mechanism.

PAPER NO. 4: MEXICO

Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries

SUBMISSION BY MEXICO

15 August 2008

Subject: Enabling the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012

(b) Enhanced national/international action on mitigation of climate change.

Parragraph 1. (b) (iii) of the Bali Action Plan: Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

The Second Session of the Ad Hoc Working Group on Long Term Cooperative Action (AWG-LCA) under the United Nations Framework Convention on Climate Change (UNFCCC), held in Bonn, Germany, invited Parties and accredited observer organizations to provide views related to Paragraph I of the Bali Action Plan, before the Third Session of the AWG-LCA to be held in Accra, Ghana, between 21st-27th August, 2008.

With the aim of contributing to the negotiations on policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries (REDD), and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, Mexico submits the following points of view to the AWG-LCA.

In order to ensure sustainability and equity, Mexico's interest in policy approaches and positive incentives on issues relating to REDD, is to ensure the broadest country participation possible. To this end, it is vital to recognize that different national circumstances across countries will determine different levels of participation and will require targeted, positive incentives to move forward.

We also consider that any scheme for the promotion of REDD activities should be progressive and founded upon capacity building, institutional strengthening and the development of technological and financial enabling environments. These aspects should be promoted according to each country's needs and national circumstances.

In this regard, there is a need for the development of criteria that could shed light on how to configure groupings of countries of similar characteristics that could pursue similar objectives. It will be critical to guarantee that any grouping of countries does not pre-determine the scale at which REDD activities be conducted, rather allowing each country to decide, based upon their actual capacities, the appropriate scale at which REDD activities be initiated.

Other areas of interest for Mexico, as stated in our Special Climate Change Program -currently in its final stages of completion-, are carbon conservation, carbon sequestration, carbon substitution and the stabilization of the forest-agriculture frontier. We consider that positive incentives should also be channeled towards such areas where actions result in local and global benefits.

Some identified specific actions where positive incentives are needed for capacity building and institutional strengthening are: monitoring, modeling, data collection and use, ecosystem protection infrastructure, operational needs and the conducting of public consultations, amongst others.

Positive incentives will also be of critical importance for allowing countries to attain adequate capacities for participating in REDD activities. Mexico favors allowing sufficient flexibility to accommodate any financial scheme or source of positive incentives that could cover different countries' needs, according to their national circumstances.

Some of the positive incentives identified as relevant to the promotion of REDD activities, as well as of conservation, sustainable management of the forest and other means to increase the forest carbon stock, are:

Financing for capacity building. Developing countries need support for capacity building at the individual, institutional and systemic level, during all stages of implementation of REDD activities. Differences amongst countries reveal the need for targeted support in this regard. Provision should also be allowed for countries applying for support to develop a market condition stage, so that all stages - readiness, implementation and/or market development- can be eligible for support.

Technological and technical cooperation. REDD activities depend on the existence of appropriate technology, know-how and the diffusion of best practices. In the development of REDD activities, national technology development and deployment as well as North-South and South-South technology transfer and technical cooperation should be included as project assessment criteria.

Participation in the carbon market. In order to increase the cost-effectiveness of REDD activities, it will be fundamental to account for their participation in the carbon market. In this regard, Mexico considers that the CDM, as it currently stands, does not seem to be the most convenient tool for promoting REDD activities and that therefore a need exists for an in-depth analysis on how to best to integrate REDD into the carbon market. We consider that the AWG-LCA should recognize the importance of the carbon market for the deployment of REDD activities, and that discussions on how to appropriately integrate REDD activities within this market should be conducted in the context of the Second Review of the Kyoto Protocol, pursuant to its Article 9 for the current commitment period, and in the context of the AWG-KP for the post-2012 period.

Creation of Funds. While the carbon market should be the main source of financing for REDD activities, they would also benefit from a funding scheme that could complement this source. Funds will play a critical role for activities such as capacity building (including the strengthening of national capacities for monitoring, assessment and modeling of carbon stocks and carbon storage potential), institutional strengthening, conservation, sustainable management of the forest and other means to increase the forest carbon stock, which need non-return funds in order to be deployed.

Mexico also considers that early actions undertaken by developing countries on the issue of REDD should be recognized and rewarded with positive incentives from any financial scheme.

With regard to institutional arrangements, there is a need to integrate the work of relevant agencies, multilateral banks and diverse mechanisms relevant to REDD, in order to combine efforts, avoid duplication, assure consistency, guarantee fund source coordination and the provision of a single REDD platform.

Mexico's proposal for the creation of a World Fund on Climate Change (or "Green Fund") has the objective of scaling-up global mitigation efforts by expanding the participation in clean development activities to include as many countries as possible, through the provision of an equitable, efficient, effective and scalable multilateral mechanism, aimed at transforming financial resources into action on mitigation, with possible derivatives for adaptation and clean technology transfer projects.

In short, we need to reinforce our capacities to advance in these areas and Mexico considers that the provision of positive incentives could favor the strengthening of national capacities.

PAPER NO. 5: NEW ZEALAND

Reducing emissions from deforestation and forest degradation in developing countries

14 August 2008

New Zealand Submission: Reducing Emissions from Deforestation and Forest Degradation in Developing Countries

Introduction and Mandate

Under paragraph 1(b)(iii) of the Bali Action Plan (Decision 1/CP.13), the international community has initiated consideration of possible policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

This process should build upon the consideration of relevant methodological issues under the SBSTA agenda item on REDD. These discussions have demonstrated that robust methodologies are available, or can be developed, to allow an effective REDD mechanism to be implemented.

New Zealand considers that it is now appropriate to discuss the development of a mechanism to provide economic incentives to reduce emissions from deforestation and forest degradation in developing countries.

Discussions to Date

During discussions on methodological issues a number of key issues have emerged regarding policy approaches and positive incentives; in particular, how a financial incentive might be provided. Two leading approaches have developed:

1. A fund that is paid to developing countries that reduce their rate of deforestation and degradation; or
2. Using a Kyoto Protocol-type trading regime to allow avoided deforestation to create tradable 'emission units'.

Both of these approaches have major challenges, which if not addressed effectively, may ultimately mean any REDD mechanism lacks environmental integrity and durability.

New Zealand notes that under either approach, some other sources of funding are likely to be necessary to assist developing countries to build capacity, provide technology transfer, assist in improving governance and enforcement, initiate national programmes, provide demonstration projects, and the like.

While the development of specific methodologies to assess emissions and create baselines will be essential, these should follow the international community's agreement to a policy approach to provide economic incentives for REDD. New Zealand considers that SBSTA's consideration of REDD methodological issues has clearly shown that non-biased, verifiable methodologies for assessing emissions from deforestation and forest degradation are available and that these can be refined once a policy approach is agreed.

The Economics of Reducing Deforestation and Degradation

Any REDD mechanism must provide developing countries with adequate financial resources to compensate them for the economic benefits they forgo by reducing deforestation (and a corresponding reduction in development, especially of agriculture, forestry and mining).

Modelling from a number of sources puts the financial incentive needed to significantly reduce deforestation rates in developing countries at somewhere in the range of $10 - $40 billion per year (see Annex 1) depending on assumptions , though there are a number of other estimates outside this range.

Economic analysis has found that for many developing countries the opportunity cost to retain their current area of forest (and therefore forego development opportunities and incur significant enforcement costs) was higher than the marginal benefit of retaining that area of forest. Many governments are therefore responding in an entirely economically rational way given the costs and benefits before them.

Without an incentive mechanism, forest area will therefore continue to decline until a country reaches an optimal forest area cover where its national-level marginal cost of retention is equal to its national-level marginal benefit of retention[1]. It is important to note that:

1. The national-level socially optimum forest coverage will be well above the forest coverage that would arise considering only the marginal costs and benefits at the individual level. This is because the individual does not value many of the benefits of forests that are valued by wider society.

2. The national-level socially optimal forest cover is not static. As countries become more developed the benefits of forests tends to rise - for example as recreation and biodiversity become more valued by a wealthier society. In addition, as wages rise with development then conversion of forest land that is marginal for agriculture becomes less economic. As a consequence, the national-level socially optimal forest cover rises also. Therefore, as countries develop they tend to increase their forest area; something that is occurring across most of the developed and a significant proportion of the developing world.

3. Countries that may currently be at their national-level socially optimal forest cover may recommence forest clearance if the opportunity cost of forest retention rises; for example if the value of agricultural products rise.

Once countries fall to or are below their national-level socially optimal forest cover, then governments tend to regulate and strongly enforce regulations to prevent or significantly control further forest clearance. This is common in most developed countries and in a number of key developing countries.

Critically, when the global values of forest retention are also considered, especially the value to the climate system, then the socially optimal area of forest retention becomes significantly greater than the national-level socially optimal forest coverage. This is supported by a number of economic analyses that conclude that, deforestation in developing countries would virtually stop even at quite modest carbon prices.

[1] though experience, for example in developed countries, shows that often actual deforestation tends to over-shoot this optimal level because of delays in recognizing the external costs of deforestation (such as erosion, flooding and biodiversity loss) and delays in governments taking action, such as legislating, to limit deforestation.

In summary, the values of retaining forest cover increase as consideration moves from individual, to country-level, to global levels. This is because more of the non-financial services provided by forests are incorporated moving from the individual, to the national, to the global values.

Why are these underlying economics of deforestation important for negotiations?

Considering the underlying economic incentives facing countries is fundamental to establishing an effective and efficient REDD mechanism. A number of key conclusions can be drawn from the discussion above, including:

1. Proposals to avoid deforestation that focus solely on capacity building, governance, and enforcement will not, in most instances, significantly reduce deforestation, since they will not transfer sufficient value to a country to compensate it for the costs (in terms of foregone development) of greater forest retention.

2. Similarly, individual project-based mechanisms will also be largely unsuccessful at a country-level, since they will only increase the benefits of forest retention in the area subject to the project. The country may still face powerful economic incentives to allow deforestation and development elsewhere outside the project boundary.

3. To be effective, the mechanism must, at a minimum, transfer value to the national government of a country in return for that government retaining forest cover at a level higher than optimal for that country had the additional payment not been made. It can be expected that, should funding stop, then deforestation activity would return to pre-REDD mechanism levels. Therefore, all other things being equal, ongoing incentives are likely to be necessary; in effect meaning that the international community is 'leasing' the additional retained forest area for a period of time.

4. It is probably not necessary to compensate countries at a rate equal to the sum of individuals' opportunity costs, which would be much more costly than compensating for the opportunity costs at the country level.

5. Any country that has forest area above its national-level socially optimal forest coverage will require compensation if it is to avoid deforestation. This is regardless of its recent deforestation rates[2] which are not necessarily a good predictor of future deforestation rates.

6. Any country already at its socially optimal forest cover (that is, that had been deforesting and has now stopped of its own accord) will not require compensation to retain that level of forest cover. The exception is where the opportunity costs of forest retention rise in future; something that could readily happen with rising food prices and therefore increasing benefits of forest conversion to agriculture. In such cases, some financial incentive may be required for countries to maintain forest cover even though they had recently had little or no deforestation.

7. It is important to note that, even where countries have stopped deforestation either of their own accord or as a result of a REDD mechanism, such countries may still have a forest cover below the optimal level when viewed from a global benefits perspective. This is because such countries will not be facing efficient economic incentives to expand their forest cover (such as through an efficient afforestation/reforestation mechanism). This is where carbon-value based incentives for afforestation could play a role, as intended through the sinks in the CDM mechanism, albeit unsuccessfully.

[2] For example countries experiencing conflict may have had a low deforestation rate in recent times, though this is likely to increase rapidly as conflicts are resolved.

8. As countries develop they generally receive greater benefits from retained forests and the country is incentivised to retain a greater of area of forest without additional incentives. It may be therefore that over time the need for avoided deforestation incentives will diminish to some extent.

Options for a REDD Mechanism

A variety of options have been discussed as potential REDD mechanisms; some are complementary and could be considered as part of a package of options. The approach usually proposed is to either manage the drivers causing deforestation (input management options) or provide incentives to participants commensurate with the reduction of deforestation (output management options), or a combination of both approaches.

New Zealand has considered a wide range of options for a REDD mechanism. In general New Zealand considers that:

- To provide the primary financial resources to address REDD, a market-based approach is likely to be more durable and economically efficient than a fund-based approach. However, both approaches have their benefits and drawbacks. New Zealand is open to exploring both options.
- Despite its benefits, a market-based approach comes with significant risks of either:
    - flooding the carbon market and therefore reducing focus on fossil fuel abatement; or conversely,
    - 'avoided deforestation credits' not materialising in the volumes expected, and therefore countries are forced into far more costly abatement options in order to meet their obligations.
- Some degree of matching increased potential supply of units with increased demand for units could help address the risks described above. However, this is likely to be very difficult in the absence of any market evidence for supply of units from a REDD mechanism. It may therefore be appropriate to explore an interim mechanism using a funds-based approach that can provide evidence for supply of emission reductions from avoided deforestation.
- There should be no presumption that the source of financial resources to address REDD is limited to Annex 1 countries only.
- One option would be to explore a new Protocol under the UNFCCC, linked to the Kyoto Protocol, in which countries in addition to Annex 1 countries take on obligations to provide financial resources for a REDD mechanism (through either a market, fund or combination approach);
- A national-based mechanism (be it market or funds based) is likely to be significantly superior to a project-based mechanism, primarily because it is better at addressing intra-country leakage; will have lower compliance/administration costs; will allow a more accurate baseline to be developed in aggregate; and is likely to allow better assessment of possible "hot-air".
- Some form of project-based mechanism may be appropriate as an initial step to aid countries' development of a national-level approach. However, such an approach would ideally not involve crediting of tradable emission units due to concerns over leakage and consequently the environmental robustness of any units generated. New Zealand considers, therefore, that the international community should explore a funds based approach for initial projects, even if a market-based approach at the national level is ultimately agreed as the primary funding mechanism.

- Any mechanism should have maximum potential for global coverage, as this is the best way to address issues of inter-country leakage. The mechanism should not apply arbitrary adjustments to financial incentives to 'correct' for possible inter-country leakage.
- Overall, an output management scheme (that is funding based on actual reductions in emissions) will be necessary to achieve the substantial resource flows required. However, capacity building will be required to put countries in a position to participate in output management options.

Domestic Policies to Reduce Emissions from Deforestation

An effective REDD mechanism potentially offers significant financial incentives to reduce deforestation. However, the development of an international financially based mechanism (providing marketable units or funds) does not mean that domestic policies need to be credit based or even economic instruments. They simply must produce real, measurable reductions in emissions at the national level. The precise mix of domestic policy approaches and measures employed by developing countries is a matter for sovereign governments. New Zealand notes that this is the same framework that applies to Annex 1 Parties in their selection of policies and measures.

This said, any potential revenue from REDD should facilitate development and implementation of effective domestic policies. Under a market-based approach in particular, it is also likely to lead to those countries that want to purchase REDD derived units being actively involved in assisting developing countries to establish effective domestic policies and measures.

New Zealand does not consider there should be specific requirements incorporated into the operative elements of any REDD mechanism agreed under the UNFCCC that would govern the domestic policies and measures of a country[3]. However, the development of principles may be appropriate to assist countries in the development of their policies and measures.

It will also be important that technology transfer, capacity building, assistance with developing a sustainable forestry industry and alternative regional employment opportunities, and the experiences gained from pilot and demonstration projects are readily available to developed countries to assist them.

[3] Though there would be a mandatory requirement for an appropriate national system to "measure" and report in a manner that allows verification of any "emissions units" issued at a national-level.

Annex 1: Summary of Some Economic Estimates of the Opportunity Costs of REDD

Opportunity costs of REDD

The make up of the financial flows associated with REDD may be complex and varied. At a minimum these will probably need to provide for: compensation for the lost opportunity to use the land for other purposes (opportunity cost); finance to promote alternate development pathways; and finance for capacity to reduce the demand and/or otherwise control deforestation.

While a wide range of 'aggregate' REDD figures have been presented in the international literature.

Table 1 is derived from one review of these analyses – a paper prepared by Boucher and presented to the World Bank's Workshop on the Costs of REDD, 27 May 2008.

The parameters presented in table 1 for the opportunity cost estimates are:

- for "Regional empirical studies"; the mean of 29 studies ± 3 Standard Error;
- for "Stern Review"; mid-point of high-low range; and
- for the "Global models", mean and minimum-maximum range of the 3 models.

The values presented here are for 50 percent[4] of abatement of global emissions and 100 percent abatement of global emissions.

The Boucher paper indicates that the shape of the abatement cost curve is non-linear and rapidly plateaus after approximately 60% of the emissions abatement potential. In other words the modeling suggests that abatement above 60% of BAU emissions has a relatively high marginal cost per tonne (over ~US$20/tonne).

Table 1: Summary of Estimates of Opportunity Costs for REDD

Analysis Approach	Opportunity Cost Estimate **US/tCO_2$**	High **US/tCO_2$**	Low **US/tCO_2$**	Implied global range of opportunity cost ($US billion, at 50% reduction of global deforestation emissions)
Regional, empirical	**2.51**	4.18	0.84	15.9>9.6>3.2
Stern Review	**5.52**	8.28	2.76	31.5>21.0>10.5
Global models	**11.26**	17.86	6.77	68.0>42.9>25.8

PAPER NO. 6: PAPUA NEW GUINEA

Reducing emissions from deforestation and forest degradation in developing countries

I. Mandate

The Second Session of the Ad Hoc Working Group on Long-Term Cooperative Action under the United Nations Convention on Climate Change (UNFCCC), held in Bangkok Thailand, invited Parties and accredited observer organizations to provide additional information, views and proposals on paragraph 1 of the Bali Action Plan by 14 August 2008. Further, the Parties agreed that at the 3rd Session of the AWG-LCA, a workshop would consider policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

For this purpose, a number of like-minded developing countries met to consider these issues in Santa Cruz, Bolivia, on July 28 - 29, 2008. Considering the short of time for final review and approval, this submission has been prepared by Papua New Guinea in reflection of those general discussions and incorporating input from many Parties, including but not limited to, Belize, Bolivia, Costa Rica, Dominican Republic, Ecuador, Equatorial Guinea, Ghana, Guatemala, Guyana, Honduras, Kenya, Malaysia, Mexico, Nicaragua, Panama, Papua New Guinea, Paraguay, Thailand, and Uganda.

II. Introduction

The IPCC's 4th Assessment Report estimates that around 5.8 GtCO2 is released annually into the atmosphere from global deforestation. Therefore, without prompt action to reduce emissions from deforestation, almost 30 GtCO2 may be released into the atmosphere between 2008 and 2012.

It is estimated that deforestation in developing countries may today contribute approximately 20% of the world's GHG emissions. As a result of human activities, large-scale deforestation has been occurring for several centuries with the balance shifting from developed to developing countries in recent decades. While has not carried a long-lasting correlation with economic development, it has been found that as rural incomes rise, rates of deforestation tend to decrease over time.

Along with the objectives of the Convention, therefore, a system of policy approaches and positive incentives to reduce emissions from deforestation and forest degradation should recognize the rights and roles of rural communities, native and indigenous peoples in order to ensure the sustainability of REDD implementation. The REDD mechanism should also recognize their traditional knowledge, their intrinsic relationship with tropical forests and should significantly support their social, environmental and economic development.

At present, however, most developing countries struggle to adequately address the drivers of deforestation because of insufficient domestic resources and overly cumbersome requirements from international agencies. Further, effective implementation will be unlikely without confidence that the opportunity costs associated with forgone land-use activities will be replaced. As such, REDD mechanisms should be on voluntary basis and developed to be fair and equitable, recognizing differing national circumstances.

Therefore, substantial and sustainable resources must be mobilized in order for mechanisms to reduce emissions from deforestation to be effective. Further, any alternative revenue streams must be transparent, predictable, sustainable and sufficient.

III. Maximizing Participation while Accommodating National Circumstances

a. Category I: Readiness & Capacity Building

Objective: Consistent with individual national circumstances, each Party should take leadership over their own REDD process of analysis, capacity building, institutional evaluation and policy development along with demonstration activities in preparation for expanded implementation of related efforts to reduce deforestation and forest degradation.

Voluntary: Participation by developing countries in such 'readiness activities' is voluntary and should not prejudice any future negotiations within the context of the Convention, the AWG-LCA, the AWG, or any such processes.

Readiness Coordination: The Parties may consider inviting interested multilateral, bilateral and international agencies to use existing platforms such as the World Bank Forest Carbon Partnership Facility (FCPF) to coordinate programs and initiatives for efficiency, consistency and to avoid redundancy. Inconsistency and lack of coordination between donors, agencies, and programs will complicate developing country participation and the effectiveness of related actions. Parties should rely upon and strengthen local capacities, and when possible, also promote South-South cooperation.

Coordination of Funding Sources: The Parties must consider better coordinating the mobilization of resources, including donors, non-governmental organizations, and the private sector, in order to maximize the access to, and the flexibility of, necessary funding sources. Such funding must be based on the specific financial needs of REDD countries, not be subject to stringent conditionality nor linked to issues not within the scope of climate change, and where possible, be designed to improve knowledge, increase transparency and standardize relevant methodologies, modalities, formats, templates and strictly defined procedures.

Institutional REDD Platform: Parties may consider leveraging the FCPF Participant's Committee into an international 'Institutional REDD Platform' for developing countries, donors, international agencies, and along with representatives from the private sector, civil society and indigenous peoples as observers, to better coordinate, evaluate and reach consensus related to activities, standards and performance.

Integrating the UN-REDD Initiative: While there is general understanding on how developing and donor Party participation may be organized under the FCPF, there is a need to further

integrate other relevant agencies within the United Nations System, such as the UNDP, UNEP and UNFAO, now operating under the mandate by the UN Secretary General as the 'UN-REDD Initiative'.

In order to effectively leverage existing programs and avoid redundancy while increasing the effectiveness of efforts, under the guidance of the Participants Committee, the World Bank and the UN-REDD Program should jointly coordinate and manage the FCPF as an 'Institutional REDD Platform' by:

- Joint Chairing the Participants Committee, in a non-voting role;
- Joint staffing the Facility Management Team;
- Development of a 'Joint Readiness Strategy' that leverages the core competencies, and harnesses the specific national relationships of each agency.

Selecting a Lead Agency: Under the leadership and guidance of each host Party and based on development priorities, each REDD country should have flexibility to select a lead agency, as required – WB, UNDP, UNEP, and/or the FAO – to sub-coordinate national readiness activities.

b. Category II: Expanding Implementation through non-Market Instruments

Objective: Consistent with individual national circumstances, each Party should take leadership over their own process to expand the implementation of policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries, and of the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

Voluntary Participation: Based upon national circumstances, along with the results of 'readiness activities' undertaken within Category I, where applicable, Parties may voluntarily notify the UNFCCC Secretariat of ongoing activities and their intention to operate under Category II. These activities should not prejudice any future negotiations within the context of the Convention, the AWG-LCA, the AWG or any such process.

Timeframe: Category I activities can be undertaken in parallel with Category II activities depending on national circumstances. Further, participation in Category II should not be limited by time, meaning that Parties may take the necessary time to develop the capacity, institutions, policy approaches, incentive frameworks, etc, with sufficient robustness to support a national accounting system and/or participation in market-based instruments, where relevant.

Activities under the Convention: Category II activities must operate within the context of the Convention and can thereby facilitate development of approaches for implementation at the national, sub-national, local and project scales. There can be significant learning-by-doing resulting from these activities.

Flexible Scale: A range of national, sub-national, local and project-level activities are presently being applied by many Parties under the Convention and should be encouraged and expanded. As agreed by the Parties, sub-national activities should be designed to be a 'step toward' a national accounting system.

Methods: The Parties will apply methods approved by the UNFCCC, including application of the IPCC GPGs, and the 'Indicative Guidance' provided by Decision 2/CP-13 where possible.

Coordination: Through the 'Institutional REDD Platform,' the Parties should continue to coordinate implementation activities, methodological standardization, and frameworks to transparently and equitably distribute positive incentives within the context of national circumstance.

Mobilizing Increased Resources: To be adequate, activities under Category II will require a significant increase of funding and initiative like the World Bank Carbon Facility, the Norway REDD Initiative, the G8 Special Climate Fund, and other similar efforts, must be welcomed. However, such funding increases may best be coordinated through the 'Institutional REDD Platform' described in Category I.

Demonstration Trading: Where market-based positive incentives may best be applicable, the Parties should consider establishing a voluntary 'Demonstration Trading' platform administered by the Participant's Committee of the 'Institutional REDD Platform' designed to simulate market conditions to facilitate learning-by-doing bearing in mind that early action taken before 2012 should be credited within future international agreements on climate change.

c. Category III: Measurable, Reportable & Verifiable (MRV) Emission Reductions through Market-Based Mechanisms

Objective: Consistent with national circumstances, each Party not included in Annex I may pursue sustainable development and contribute to the ultimate objective of the Convention by participating in a REDD mechanism. At the same time, A REDD mechanism will also assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3 of the Kyoto Protocol, or similar article in a successor agreement.

Voluntary: Participation in a REDD Mechanism is voluntary and must be approved by each host Party.

Timeframe: Parties may agree to participate within a REDD Mechanism at any time while a relevant international agreement on climate change is in force while continuing participation until the expiry of that agreement.

Implementation: Under a national accounting system, Parties could implement at any scale that is appropriate (national, sub-national, project) for each specific policy approach and/or positive incentive framework, based upon national circumstance.

Participation: Parties shall inform the UNFCCC, through the Secretariat, of their intention to participate in a REDD Mechanism, which could include the following information for consideration by the Parties:

- *Reference Scenario:* a reference emissions level taking into account historical data and national circumstances, including low rates of historical deforestation and forest degradation, and assessed over a period of at least five years;

- *Developmental Adjustment:* an appropriate development adjustment factor when assessing reference emissions levels (see below);

- *Early Action:* MRV emissions reductions achieved under a national accounting system during the period 2005 – 2012, subject to independent review by an Expert Team supported by the Secretariat.

Credit for Early Action: As a result of activities undertaken from 2005 - 2012 within the context of Decision 1/CP.13 and Decision 2/CP.13 and subject to independent review by Expert Teams supported by the Secretariat, the Parties should ensure that MRV emission reductions achieved up to the commencement of any future international agreement on climate change can be used to assist in achieving future compliance by Annex-1 Parties (following the precedent granted to the CDM in the Kyoto Protocol.)

Developmental Adjustment: Based on national circumstances, environmental, social and economic factors could be taken into consideration in order to determine an appropriate development adjustment factor when determining reference emissions levels. Any developmental adjustment should be applied on the basis of equity and in accordance with common differentiated responsibilities and respective capabilities, thereby contributing to the objectives of Article 3.1 the Convention.

Reporting: Parties would apply reporting principles already established under UNFCCC (transparent, consistent, comparable, complete and accurate) and may also implement a new principle of conservativeness.

Methods: Parties would apply the relevant methodological guidance developed by the IPCC and approved by the Parties (IPCC LULUCF Good Practice Guidance.)

Fungibility: MRV emissions reductions units earned under an agreed 'reference emissions level' should guarantee direct market access, be fully fungible with AAUs, and transacted at a price equal to that applied to credits earned by Annex-1 Parties.

Ex-Ante Crediting: A Party could be issued allowance credits 'ex-ante' against an agreed 'reference emissions level,' considering that a REDD Mechanism would effectively constitute a sectoral approach for a system of policy approaches and positive incentives, similar to that applied Article 3.3 and 3.4 of the Kyoto Protocol.

End of Term Accounting: For developing countries, it is important that there is no obligation to acquire emission reductions externally for any unanticipated emissions increases in the forestry sector remaining at the expiration of a future international agreement on climate change. However, atmospheric integrity must be maintained under a REDD Mechanism, or any other such instrument. Therefore, given the voluntary nature of the REDD Mechanism, any final quantity of emissions above the reference emissions level could be:

- Deducted from any remaining national 'reserve' accounts
- Transferred to a subsequent international agreement on climate change

Additional to the CDM: A new mechanism for REDD cannot simply compete with, and lower market prices for, actions taken under the Clean Development Mechanism (CDM). Therefore, while REDD should be addressed within a separate mechanism, a REDD mechanism must be complementary and additional to the CDM.

Balance Supply & Demand: When considering cap-and-trade market instruments, leadership by Annex-1 Parties, in the form of deeper targets that are truly additional, must precede the introduction of a new supply of carbon credits from reduced emissions for deforestation in

developing countries. Therefore, Annex-1 Parties should agree to deeper emissions reductions than would otherwise be accepted to support a REDD Mechanism.

Draft Article for REDD Mechanism:

1. A mechanism is hereby defined and effected to reduce emissions from deforestation and forest degradation (REDD Mechanism.)

2. The purpose of the REDD mechanism shall be to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments.

3. Under the REDD mechanism:

(a) Parties not included in Annex I will benefit from REDD activities resulting in measurable, reportable and verifiable (MRV) emissions reductions; and

(b) Parties included in Annex I may use the MRV emission reductions accruing from such activities to contribute to compliance with part of their quantified emission limitation and reduction commitments, as determined by the Conference of the Parties.

4. The REDD mechanism shall be subject to the authority and guidance of the Conference of the Parties.

5. Emission reductions resulting from each REDD activity shall be independently reviewed by an Expert Review Team supported by the Secretariat, on the basis of:

(a) Voluntary participation approved by each Party involved; and

(b) Real, measurable, and long-term benefits related to the mitigation of climate change.

6. The REDD mechanism shall assist in arranging funding of relevant activities as necessary.

7. The Conference of the Parties shall, at its next session, elaborate modalities and procedures, applying the relevant methodological guidance developed by the IPCC and approved by the Parties (IPCC LULUCF Good Practice Guidance) where relevant, with the objective of ensuring transparency, efficiency and accountability through independent review of REDD.

8. Participation under the REDD mechanism, including in activities mentioned in paragraph 3(a) above and in the acquisition of MRV emission reductions, may involve private and/or public entities, and is subject to any guidance provided by the Parties.

9. MRV emission reductions obtained during the period from the year 2005 up to the beginning of the commencement of a future international agreement on climate change can be used to assist in achieving compliance under the terms and conditions of that agreement.

IV. Important Issues Requiring further Consideration

The Parties may consider that Forest Management (FM) activities, including efforts to reduce forest degradation, the sustainable management of forests, conservation, etc, could be accounted as 'forest land remaining forest land' under the IPCC Guidelines on GHG inventories. Accordingly, the Secretariat could convene an Expert Group to consider forest degradation, enhancement of forest carbon stocks, sustainable management of forests, and conservation, along with metrics upon which to transparently elevate emissions reference levels, or apply non-market instruments to support such efforts and make recommendations. The outcomes of this Expert Group should be considered by the AWG-LCA.

Forest Degradation: The relevant methodological guidance developed by the IPCC and approved by the Parties (IPCC LULUCF Good Practice Guidance) is believed sufficient for the purposes of forest degradation. However, the Parties have asked the Secretariat to convene an Expert Group to make recommendations to the Parties regarding methods to address emissions resulting from forest degradation.

Enhancement of Forest Carbon Stocks & Sustainable Management of Forests: Parties may consider methods to enhance forest carbon stocks or otherwise sustainably manage forest areas, as defined by each host Party, and account for the carbon stock implications, where relevant. There is a need to strengthen and expand the enhancement of forest carbon stocks in order to have a real and meaningful impact toward climate objectives and such activities should be considered as an eligible mitigation activity under Category III.

However, the standards imposed by the international community to achieve SFM are very high and requires a significant increase in financial resources. Serious consideration should thus be given to provide adequate incentives to promote the broad implementation of activities to enhance forest carbon stocks or SFM practices, as these have been shown to be an effective approach to controlling deforestation in developing countries.

The Role of Forest Conservation: In order to recognize the efforts of countries that have maintained or reached a stable level of forest cover we propose the following instruments:

a) *Low Rates of Deforestation:* In order to maintain low rates of deforestation and forest degradation, such Parties could intentionally increase their emissions reference level under Category II or Category III in order to generate the revenues necessary to continue maintaining carbon stocks while overcoming risks of alternative opportunity costs. The Secretariat could convene an Expert Group to consider metrics to upon which to transparently elevate an emissions reference level and make recommendations.

b) *Permanent Forest Conservation Areas:* For Parties seeking to increase or consolidate permanent forest conservation areas within the context of a REDD mechanism, certain forest areas could be permanently identified as conservation areas. In such cases, non-market

instruments, such as auctioning AAUs with Parties listed in Annex-1, could be used to support efforts to increase carbon reservoirs.

c) Countries should have the opportunity to use REDD instruments and participate in non-market instruments for permanent conservation activities.

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