GREENPEACE

Sinks in the CDM: After the climate, biodiversity goes down the drain.

An analysis of the CDM sinks agreement at CoP-9[1].

SUMMARY

CoP-9 has agreed the rules of accounting for Land Use, Land Use Change and Forestry, so called "Sinks", projects in the Clean Development Mechanism for the first commitment period of the Kyoto Protocol as required by the Marrakech Accords (17/CP.7, 10(b)). This document presents a rough guide and analysis of the key decisions that were made in Milan at CoP-9 on CDM sinks rules (FCCC/SBSTA/2003/L.27)[2].

As is well known, Greenpeace and many other environmental groups have long been opposed to the inclusion of sinks projects in the CDM, and this opposition remains. Nevertheless, Parties have agreed to include sinks and consequently the focus of our efforts since Marrakech has been to ensure that the rules have climatic, environmental and social integrity.

After the key climate concern was overruled by allowing "offset-sinks" into the CDM at CoP-6bis, the current rules should at least have prevented subsidies to environmentally and socially damaging projects. Unfortunately, the door is now wide open for projects with disastrous effects for biodiversity and local livelihoods. Such projects should now, and most likely will, be opposed on the ground and investors should be held accountable.

[1] 19th December 2003. Analysis by Malte Meinshausen and Bill Hare with comments from Mahi Sideridou and Vanessa Atkinson.

[2] The adopted rules are contained in the document FCCC/SBSTA/2003/L.27, which can be downloaded from www.unfccc.int > documents, or via the direct link http://unfccc.int/resource/docs/2003/sbsta/l27.pdf.

No party acting in good faith should want to give Kyoto a bad reputation by using monocultures or genetically modified organisms in the name of climate protection.

The last years of negotiation have clearly revealed the fact that the main advocates of the use of sinks projects (Canada, Australia, New Zealand, Japan) are universally opposed to rules that would provide this integrity. In many ways the positions that these countries have argued have borne out the worst fears of opponents to sink projects. It has only really been the concerted opposition of the European Union, the Environmental Integrity Group (Switzerland, Mexico, South Korea) and Norway that has enabled the worst excesses of these countries to be watered down. Once again developing countries, as a group, have acted in such a way as to score own goals against their environment, although many supported strong rules to reflect the impermanence of sink projects. By marrying arguments about local sovereignty to the interests of industrial plantation advocates many of them have missed an opportunity to redress democratic deficits and power imbalances between those with project financing from the industrialized countries and those most affected in the host countries. In effect, many developing countries have missed a major opportunity to use international law to advance local sustainable development objectives.

In terms of the detail of the decisions taken at CoP-9 there is not much good news for the environment or local communities in the final sinks rules. Large scale plantations with non-native monocultures, possibly using genetically modified organisms and displacing local inhabitants, will be allowed under these rules; and as the final insult, local communities and stakeholders will only have minimal chance to comment on projects and no real influence over the decision and final design.

Greenpeace calls on all Parties not to use any sink projects for reaching their Kyoto targets for two reasons:

1) Credits from sink projects will allow higher fossil fuel related emissions. No political or financial resources must be diverted from the pivotal task of promoting renewable energy sources and energy efficiency, if we want to avoid catastrophic climate change.
2) The agreement adopted in Milan does not rule out environmentally and socially destructive projects.

Greenpeace specifically calls on all governments to keep sink credits out of national emissions trading systems, such as the European Emission Trading System.

Contents:

BACKGROUND

Although the last stage of the negotiations was focused on the modalities of *how* to include sinks in the CDM, the primary climatic concern should not be forgotten. Many parties together with environmental NGOs were and are opposed to the inclusion of sinks as offsets. Why? Accounting for sinks allows for higher fossil fuel emissions. In order to reach safe climate levels, emissions from the inert energy systems have to be reduced dramatically over the coming years and decades. Any diversion of political and financial resources away from this tremendous task can render the ultimate goal of the climate change Convention unachievable: 'the prevention of dangerous interference with the climate system'.

A major inherent problem of sinks is the risk of re-emissions of sequestered carbon in the future (non-permanence). Fires, pest attacks, and increased need for agricultural land are likely to turn today's sinks into future sources. Thus, allowing higher fossil fuel related emissions today by doing afforestation projects is like borrowing from future generations. In 20, 30 or 50 years, future societies will have to make up for any re-emission. However, at that time they will also be faced with a much higher mitigation and adaptation burden. Thus, if sink reversal occurs in the future, it is unlikely that truly additional emission reductions will be possible due to the high mitigation and adaptation burden at that time. Furthermore, the argument that sinks "buy us time" would only materialize if new energy saving/efficiency technologies and behavioral changes would 'fall from the sky'. Otherwise, the 'buying time' argument is simply a myth. Since 'learning-by-doing' is the only viable way to spur the development and – more importantly – the dissemination of sustainable technologies, the climate will suffer for every euro that we invest in sink projects instead of energy saving & efficiency or renewable projects.

As decided in Bonn, in July 2001 (CoP-6bis), eligible forestry activities under the CDM are constrained to afforestation and reforestation projects. Furthermore, the acquisition of such credits by Annex I countries has been limited to 1% of the country's base year emissions. The exact definitions and modalities for the inclusion of afforestation and reforestation projects were not agreed upon at CoP-6bis, but deferred to CoP-9. After 2 years of negotiations, the modalities were finally agreed in Milan in December 2003. This document provides an overview and brief assessment of the agreed rules.

ISSUE-BY-ISSUE ANALYSIS

In the following, the key issues within the adopted CDM sink rules for the first commitment period are highlighted.

1. Industrial Plantations:

The current rules leave the door wide open for destructive large-scale monoculture plantations. Although the Project Design Document contains certain requirements to report on what the social and environmental impacts might be (see below), there is no international minimum standard to judge whether certain impacts are unacceptable or not. This open door to destructive projects is a serious flaw in the adopted sinks rules. Environmentally and socially destructive projects will be opposed (such as the World Bank PLANTAR project). No investor would want to risk its reputation by investing in such projects.

2. GMOs (Genetically Modified Organisms):

Genetically modified organisms are not excluded under the current rules. It is completely left to the host country and the user of the CER credit, whether GMOs will be used in a sink projects or not. The actual language is:

> *Recognizing that host Parties evaluate, in accordance with their national laws, potential risks associated with the use of genetically modified organisms by afforestation and reforestation project activities and that Parties included in Annex I evaluate, in accordance with their national laws, the use of temporary certified emission reductions and/or long-term certified emission reductions generated from afforestation and reforestation project activities that make use of genetically modified organisms, (FCCC/SBSTA/2003/L.27, page 2).*

In order to operationalize this language, the buyer of a CER credit, the Annex I country, has to know, whether the project uses GMOs or not. Thus, there is language in the project design document that requests to report the used "species and varieties":

> *2. […] The description shall include the following:*
> *(a) A description of the afforestation or reforestation project activity [ ] including species and varieties selected and how technology and know-how will be transferred, if appropriate; [ ]; (FCCC/SBSTA/2003/L.27, page 18, Appendix B, para 2(e))*

The big question is whether the need to report on 'varieties' comprises the duty to say, whether GMOs have been used or not. Canadian lawyers might try to find a way around this.

3. MEAs (Multilateral Environmental Agreements):

The link to other multilateral environmental agreements has now been watered down beyond recognition (primarily thanks to Canada). The language in the current text even turned into the opposite of what should have been achieved. Instead of requesting synergies and coherence between the UNFCCC, and the Convention on Biological Diversity (CBD), the Convention to Combat Desertification (CCD) and the Ramsar Convention on Wetlands, the current language implicitly stresses WTO Trade rules. This could allow international trade rules to override a country's choice to not buy credits from environmentally damaging sinks projects on the international market.

> *Cognizant of relevant provisions of international agreements that may apply to afforestation and reforestation project activities under the clean development mechanism, (FCCC/SBSTA/2003/L.27, page 2, principles of CoP.9 Decision).*

Canada deleted "environmental" from "international environmental agreements" in a last second intervention. By not making an explicit link to the CBD, the adopted CDM sinks rules are another shameful example of how the UNFCCC sinks accounting rules disrespect the agenda of biodiversity.

4. Socio- and Environmental Impacts.

A socio-economic and/or environmental impact assessment has only to be done, if there are 'any negative impacts' considered being 'significant' by the project participants or the host party. Furthermore, the impact assessment is not subject to any kind of guidelines, but completely up to the host party. This regrettable decision is due to the so-called 'sovereignty' concerns voiced by many of the potential host countries, as well the eagerness of some Annex-I countries, like Canada, for cheap credits. Furthermore, there was neither any discussion on what 'significant' impacts are, nor are there any monitoring requirements for those impacts that were assumed not to be significant at the project start (but which might turn out to be significant later). Overall, the current rules don't give any guarantee that destructive projects could not go forward.

The only positive element is that the Appendix B, and therefore the Project Design Document, will require some information on estimated impacts. This makes it easier for NGOs and local stakeholders to scrutinize projects. However, it is still left to critical stakeholders to take the time and energy to campaign against destructive projects. Not allowing large-scale monoculture plantations in the first place would have saved everybody a lot of time and trouble.

The relevant paragraph 12 (c) is:

> *(c) Project participants have submitted to the designated operational entity documentation on the analysis of the socio-economic and environmental impacts, including impacts on biodiversity and natural ecosystems, and impacts outside the project boundary of the proposed afforestation or reforestation project activity under the CDM. If any negative impact is considered significant by the project participants or the host Party, project participants have undertaken a socio-economic*

impact assessment and/or an environmental impact assessment in accordance with the procedures required by the host Party. Project participants shall submit a statement that confirms that they have undertaken such an assessment in accordance with the procedures required by the host Party and include a description of the planned monitoring and remedial measures to address them;(FCCC/SBSTA/2003/L.27, page 7).

The relevant text in the project design document is:

2. […]
b) A description of the present environmental conditions of the area including a description of climate, hydrology, soils, ecosystems, and the possible presence of rare or endangered species and their habitats;
(c) A description of legal title to the land, rights of access to the sequestered carbon, current and tenure and land use;
….]

(j) Environmental impacts of the project activity:
(i) Documentation on the analysis of the environmental impacts, including impacts on biodiversity, natural ecosystems, and impacts outside the project boundary of the proposed afforestation or reforestation project activity under the CDM. This analysis should include, where applicable, information on, inter alia, hydrology, soils, risk of fires, pests and diseases;
(ii) If any negative impact is considered significant by the project participants or the host Party, a statement that project participants have undertaken an environmental impact assessment, in accordance with the procedures required by the host Party, including conclusions and all references to support documentation.

(k) Socio-economic impacts of the project activity:
(i) Documentation on the analysis of the socio-economic impacts, including impacts outside the project boundary of the proposed afforestation or reforestation project activity under the CDM. This analysis should include, where applicable, information on, inter alia, local communities, indigenous peoples, land tenure, local employment, food production, cultural and religious sites, access to fuelwood and other forest products;
(ii) If any negative impact is considered significant by the project participants or the host Party, a statement that project participants have undertaken a socioeconomic impact assessment, in accordance with the procedures required by the host Party, including conclusions and all references to support documentation.
(FCCC/SBTSA/2003/L.27, pages 19-21).

5. Stakeholder involvement:

The stakeholder requirements are very weak. The project's location in rural areas and the larger size of sinks projects vs. energy projects clearly warranted extended stakeholder participation requirements. However, the adopted language is as insufficient as in the current energy rules. A website for comments on a Project Design Document hardly seems sufficient to allow input from rural communities that have neither telephone nor internet. A much better language proposed by the EU was dropped. This language would have required that "local stakeholders have been involved at an early stage in the project design".
The only language that goes beyond the inadequate stakeholder rules for energy projects, is a slightly extended commenting period of 45 days, instead of 30 days.

(b) Comments by local stakeholders have been invited, a summary of the comments received has been provided, and a report to the designated operational entity on how due account was taken of any comments has been received;
(FCCC/SBSTA/2003/L.27, page 12 (b)

15. The designated operational entity shall:
[…]
(c) Receive, within 45 days, comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available; (FCCC/SBSTA/2003/L.27, page

(n) Stakeholder comments, including a brief description of the process, a summary of the comments received, and a report on how due account was taken of any comments received; (FCCC/SBSTA/2003/L.27, page 20).

6. Non-permanence / Accounting:

The non-permanence issue does not only require proper accounting and liability for any re-emissions, but as well a strong incentive for long-term projects. Clearly, the focus of the negotiations has only been on the accounting scheme. Safeguards against short-term projects, such as a minimum project lifetime have been discarded completely in the current rules.

The adopted accounting scheme offers two options, the tCER ('temporary CER') and the lCER ('long-term CER') schemes. Both options are very similar. In fact, the tCER accounting approach is basically a subcategory of the lCER accounting approach.

- **The tCER scheme** is basically the original European tCER proposal (which was based on a Colombian proposal from some years ago). The project can generate as many tCERs as the number of tons of carbon that can be verified to have been additionally sequestered by the projects since the project start date. After 5 years, the tCERs expire and have to be replaced by other credits. If a new verification is done, new tCERs can be issued again every 5 years. Since the market price will be driven by buyers' optimization, the price of a tCER credit will be approximately equal to a lCER with a 5-year validity period. Thus the tCER price will be between 14% and 41% of an energy CER credit, depending on the assumed effective annual interest rate.

- **The lCER scheme** is based on the last-minute Canadian proposal to extent the tCER system. After Canada dropped its flawed "insurance" approaches, this new proposal certainly has some merits. The basic idea is that the project can issue lCER credits for every verified ton of carbon. This lCER credit has to be replaced as soon as the verification shows that the carbon stock has decreased or if no verification report is provided within 5 years. Thus, the holder of the lCER, the Annex I country, always faces the risk, that it has to replace the credit.

Both accounting schemes require verification/ monitoring every five years. The liability for re-emissions rests always on the buyer side (unless certain side contracts are done on a private basis) and is unlimited until the end of the crediting period, when the lCERs have to be replaced.

In comparison to tCERs, some elements of the lCER accounting scheme are better, namely the resulting price differentiation from project to project. A high-risk project might fail after a couple of years. Therefore, the respective "high-risk" lCERs will find buyers only at a lower price. Projects that can be assumed to be sustainable over 60 years, can sell lCERs at higher prices (see Table 1). However, the disadvantage of lCERs in comparison to tCERs is clearly the missing educative component. Buying an offset credit that is valid for more than 5 years, is likely to support politicians' myopia. A possible replacement of lCERs in 20 years time is likely to be outside the horizon of today's decision-makers. Thus, in summary, the lCER approach is beneficial on the seller's side (since it will result in less revenue for short-term, high-risk projects) and the tCER approach is beneficial on the buyer's side (since a five year validity reminds the buyer of the non-permanent nature of sinks).

Table 1 - Price of lCERs expressed as a percentage fraction of a CER from energy projects. Depending on the lifetime (validity period) of a lCER and the effective annual interest rate (taking into account real interest rate and CER price projections), the market price for a lCER is likely to be between 14% to 100% of a normal CER. Effective lCER market prices might even be slightly lower, due to a risk premium for the buyer and ongoing costs for verification.

	Effective annual interest rate		
Validity period (Years)	***3%***	***5%***	***10%***
5	14%	23%	41%
10	26%	40%	65%
20	46%	64%	88%
40	70%	87%	99%
60	84%	95%	100%

Overall, the adopted rules don't solve the non-permanence problem of sinks. No modalities could have ever solved it, since the risk of non-permanence is an inherent feature of sinks - in contrast to the permanent nature of emission reductions in the energy sector. The lCER accounting scheme seems preferable, since higher risk / short-term projects will get lower revenues for the issuance of lCERs. Moreover, the rules clearly fail to favour long-term over short-term projects, which could have been achieved by a minimum project lifetime requirement.

7. Invasive alien species:

Invasive alien species are those non-native species that threaten ecosystems, habitats and other species by their introduction. The current rules fail to *explicitly* exclude invasive alien species. However, the principles in the decision text mention that 'parties evaluate […] risks associated with the use of *potentially* invasive alien species'. Thus, one could make the case that those species that have found to be 'invasive' are implicitly excluded. Why else would one evaluate the *potentially* invasive alien species?

> *Recognizing that host Parties evaluate, in accordance with their national laws, risks associated with the use of potentially invasive alien species by afforestation and reforestation project activities*

> *and that Parties included in Annex I evaluate, in accordance with their national laws, the use of temporary certified emission reductions and/or long-term certified emission reductions generated from afforestation and reforestation project activities that make use of potentially invasive alien species,*
> *(FCCC/SBSTA/2003/L.27, page 2).*

8. Leakage:

On leakage, there is good and bad news. The good news is that 'positive' leakage is excluded. This means that project developers cannot claim credits for emission reductions or removal increases outside the project boundary. Otherwise numerous problems would occur, such as 'who is liable for re-emissions?' Furthermore, claiming carbon credits for something that is happening on somebody else's land would be a dangerous concept. In a conservative manner, the current rules correctly require to subtract any off-site negative leakage from the earned credits.

The bad news is that there is no "100% default assumption" of negative leakage. With the current rules, project developers are inclined to claim that the estimation of leakage is difficult, "thus leakage is assumed to be zero". The EU proposal required that significant leakage has either to be estimated or prevented, if the project is to claim any credits. This proposal was – unfortunately - dropped.

9. Non-CO_2 gases

The adopted rules follow a conservative approach with regard to the accounting for non-CO_2 gases. The adopted language is acceptable. The "baseline" only includes CO_2 emissions. The "actual" project emissions take into account CO_2 and

> *"[…] the increase in emissions of the greenhouse gases measured in CO_2 equivalents by the sources that are increased as a result of the implementation of the afforestation or reforestation project activity […] " (FCCC/SBSTA/2003/L.27, page 5).*

The reasoning behind this conservative approach is the following:

a) non-CO_2 gases might increase significantly due to project implementation. For example, if fertilizers are used, the global warming effect of resulting nitrous oxide emissions might counterbalance any CO_2 sequestration completely. Thus, it is warranted to account for any increased non-CO_2 emissions.
b) The mere cessation of previous land-use activities might result in a decline in non-CO_2 emissions. Since high non-CO_2 emitting land-use activities are agriculture activities that are simply shifted elsewhere, credits would have been given without actually decreasing emissions. Furthermore, since only afforestation and reforestation activities are eligible under the CDM, the accounting for discontinued former activities would have stretched the mandate of the negotiators.

10. Additionality:

The text on additionality is parallel to the text in the energy decision (17/CP.7). As long as the continuing objectivity of the Executive Board is guaranteed, the current language is acceptable. A particular EU proposal would have been beneficial since it tried to clarify the current energy / sinks additionality language. The EU proposal suggested an additional sentence and would have been along the lines "*so* that project activities that would have occurred in the absence of the CDM are not registered." This proposed clarification to paragraph 18 was finally dropped, since there were some (probably unfounded) concerns that a clarification of the language in the sinks text might backfire on the interpretation in the energy rules. Clearly, any interpretation of the current additionality language other than the current Executive Board interpretation would be unacceptable. No projects should be registered that would have happened anyway. Since the tropical industrial plantation area has been growing by 4 Mio hectares over the past 10 years, it is of utmost importance to clearly rule out any such business as usual increases from the CDM.

> *18. An afforestation or reforestation project activity under the CDM is additional if the actual net greenhouse gas removals by sinks are increased above the sum of the changes in carbon stocks in the carbon pools within the project boundary that would have occurred in the absence of the registered CDM afforestation or reforestation project activity. (FCCC/SBSTA/2003/L.27, page 9).*

Furthermore, the baseline methodology requires taking into account some determinants, such as existing or historical changes in carbon stocks. This language definitely could have been more detailed.

> *22. In choosing a baseline methodology for an afforestation or reforestation project activity under the CDM, project participants shall select from among the following approaches the one deemed most appropriate for the project activity, taking into account any guidance by the Executive Board, and justify the appropriateness of their choice:*
> *(a) Existing or historical, as applicable, changes in carbon stocks in the carbon pools within the project boundary;*
> *(b) Changes in carbon stocks in the carbon pools within the project boundary from a land use that represents an economically attractive course of action, taking into account barriers to investment;*
> *(c) Changes in carbon stocks in the pools within the project boundary from the most likely land use at the time the project starts.*
> *(FCCC/SBSTA/2003/L.27, page 9)*

11. 1990 reference year:

Luckily, the 1990 reference year has been kept in the reforestation definitions. A shift to a later reference year could have had disastrous consequences, e.g. creating the perception for landowners that deforestation will be rewarded at some point in the future. Thus, perverse incentives for deforestation have been avoided. The main concern on data availability by Japan has been constructively countered by the European Union by a side event on satellite data availability.

12. Small-scale:

Climate Action Network has always argued that there shouldn't be any small-scale (or special project) simplified modalities, since all projects within the CDM should benefit local people and biodiversity. Creating special rules for more environmentally and socially sound small projects creates the perception that the other sinks projects can be big monoculture plantations.

The adopted text allows for simplified modalities to be developed for small-scale sink projects. Small-scale sink projects are defined as projects that result in a removal of less than 8 kilotonnes CO_2 per year. Furthermore, the development or implementation has to be done by low-income communities and individuals. As a consequence of limiting the uptake rate (8ktCO_2/year), the actual size of eligible projects varies according to the project type. For fast growing species, the size will be limited. Assuming uptake rates of 20 to 40 tCO_2/ha/year, the eligible size will be between 200 to 400 hectare or about 270 and 540 football fields. For lower uptake rates, e.g. landscape restoration projects in semi-arid regions, the eligible size will be relatively bigger. Assuming an uptake rate of 10 to 5 tCO_2/ha/year, the size will be 800 to 1600 hectare or 1100 to 2200 football fields.

> *1 (i) "Small-scale afforestation and reforestation project activities under the CDM" are those that are expected to result in net anthropogenic greenhouse gas removals by sinks of less than 8 kilotonnes of CO_2 per year and are developed or implemented by low-income communities and individuals as determined by the host Party. (FCCC/SBSTA/2003/L.27, page 5).*

In what way the modalities will be simplified remains to be determined. Parties and UNFCCC accredited observers are asked for submissions on this issue until 24 February 2004. Based on these submissions and relevant work by the Executive Board, the UNFCCC secretariat will produce a technical paper. SBSTA will then propose simplified modalities for adoption in Buenos Aires at CoP-10. Possibilities for simplified modalities, as they were discussed in the corridors of Milan, include i) ODA (Official Development Aid) funding for registrations and verification costs and ii) simplified baselines.

There is one important thing to watch out for during the coming year, when the modalities are designed: It must be guaranteed that large plantations cannot be split up and claim credits as several small-scale projects.

13. Geophysical location

The current text requires reporting "a description of the physical location and boundaries of the project activity" (FCCC/SBSTA/2003/L.27, page 18, Appendix B, 2(a)).The current text does not specify whether geo-referencing methods should be used to describe the physical location. However, it is highly important that the geo-referenced boundaries are reported as well, to facilitate on-the-ground inspections by stakeholders. This clarification should be made by the Executive Board.

OUTLOOK FOR 2nd COMMITMENT PERIOD

The decisions taken in Marrakech in relation to the accounting for sinks of all kinds, including within the CDM, relate only to the first commitment period of the Kyoto Protocol (2008-12). The fundamental issue that has motivated Greenpeace's concerns over the use of sink credits of any kind to offset against fossil fuel emission reductions remains unresolved. This issue can be expressed as a question with specific reference to Article 2 of the UNFCCC and the objective of the prevention of dangerous climate change: What are the geophysical possibilities, if any, for a trade off between the use of sink credits and industrial greenhouse gas emissions whilst limiting global warming to 2°C[3] or less?

The IPCC Special Report on LULUCF failed to address this issue in any quantitative way and as a consequence there is little or no coherent guidance from the scientific community on this issue. There are those who advocate full inclusion of sinks, included avoided deforestation on an full crediting basis (Schulze, Mollicone et al. 2003); these are principally scientists involving in carbon accounting and flux measurements. Others disagree, arguing that carbon can be released quickly from the biosphere due to human or climatic disturbances (Korner 2003). Advocates of inclusion of sink credits in the Kyoto systems often make the mistake that there is "no difference in climatological effect between CO_2 taken up by the land and CO_2 reductions due to other causes" (Noble and Scholes 2001). It is clear that there are substantial differences when one views the issue, as one must do, from a systems perspective where all aspects of atmospheric stabilization and the carbon cycle are taken into account.

The recent German Global Change Advisory Council report on the future of the climate regime, for example, recognizes the significance and importance of the problem of reducing deforestation emissions, maintaining existing carbon reservoirs and enhancing the uptake of carbon. It calls for a full accounting of terrestrial carbon fluxes (Graßl, Kokott et al. 2003). It finds, however, that "at the present time the Council advises against seeking to regulate the conservation of biological terrestrial carbon stocks within the same system, with the same allocation procedure and with the same instruments as reduction commitments for fossil carbon stocks". Instead it calls for the biosphere to be taken into account under a special agreement that does not involve carbon crediting.

The perspective that Greenpeace has brought to this issue to date is that to meet necessary climate protection goals, it is necessary to take simultaneous action to deeply reduce industrial greenhouse gas emissions, principally CO_2 from fossil fuel burning, and to reduce deforestation emissions. As a direct consequence of the climate objective that Greenpeace believes necessary (limiting the global mean temperature increase to below 2°C) we consider that there is virtually no room for a tradeoff with sink credits. If a significantly higher climate target were acceptable or the climate sensitivity is very low,

[3] The Climate Action Network is calling for climate policy globally to limit global mean warming below 2°C above pre-industrial levels – see http://www.climatenetwork.org/docs/CAN-DP_Framework.pdf.

then there would be room for trade off in this area. Unfortunately these conditions do not appear to apply. The risk of large scale releases of carbon from the biosphere arising from climate change (Cramer, Bondeau et al. 2001; Jones, Cox et al. 2003), including the risk of climate change induced collapse of the Amazon forests (Cowling, Cox et al. 2003; Cox, Betts et al. 2003), adds to concerns in this area.

Debate continues over these questions. A new proposal for accounting for tropical deforestation under the Kyoto Protocol was put forward at CoP-9 (Santilli, Moutinho et al. 2003). This proposal has many positive features when compared to earlier proposals, and is motivated by the urgent need to find a way to bring deforestation of the Amazon (and elsewhere) under control. The main problem remains as described above, however.

There urgently needs to be a full scientific assessment of these issues, so as to understand the full range of answers to the question raised above: What are the geophysical possibilities, if any, for a trade off between tropical deforestation emission reductions and industrial greenhouse gas emissions whilst limiting global warming to 2°C or less? Progress seems likely only if this question can be answered so that all parties can fully see the circumstances and consequence of tradeoffs between fossil fuel reductions and action to reduce, for example, tropical deforestation. Greenpeace is willing to support initiatives that assess these questions and provide scientific advice to policy makers on the implications of the range of answers that would emerge from such an analysis. Until there is good scientific evidence to the contrary, we remain of the view that accounting for LULUCF activities and fossil fuel related emissions must happen in separate systems.

In conclusion Greenpeace remains actively engaged in discussions regarding future commitment rules and modalities – as well as LULUCF activities. Of paramount concern to us is that:

1) All policies contribute to the prevention of dangerous climate change and particular to limiting global warming to below a 2oC increase.
2) Ensuring that any LULUCF activities protect biodiversity and enhance other environmental values.

Greenpeace welcomes any dialogue on this issue.

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ANNEX I: Glossary & Abbreviations

Annex I of the Convention list those countries with quantified emission reduction or limitation obligations. Basically Annex I countries are industrialized countries plus those countries with economies in transition

Appendix B is the Appendix in the agreed rules (document FCCC/SBSTA/2003/L.27) that outlines the necessary information for the Project Design Document.

Base year emissions - The Emissions in the base year (mostly 1990) which are taken as the reference for future emission reduction obligations.

Baseline - The baseline of a project determines the changes in emissions or removals that would have occurred in the absence of the project activity

CDM - The Clean Development Mechanism under the Kyoto Protocol (Art. 12), which allows Annex I - Parties to achieve part of their emission reduction obligations by investing in projects in developing countries (non-Annex I countries)

CERs - Certified Emission Reductions, which is the name for emissions credits / allowances, that stem from projects under the Clean Development Mechanism.

CO_2 - Carbon Dioxide, the main greenhouse gas emitted by human activities.

Commitment period - The Commitment Period is the 5-year interval in which the emission reduction obligations under the Kyoto Protocol are binding. The first commitment period is from 2008 to 2012.

CoP-9 - Ninth Conference of the Parties to the UNFCCC

EIT - Countries with Economies in Transition.

Executive Board - The Executive Board supervises the Clean Development Mechanism and decides on methodological and operational questions regarding the implementation of the projects under the CDM.

FCA - Full Carbon Accounting. That means, all sources and sinks are quantified / estimated and somehow subject to policy targets.

GMOs - Genetically Modified Organisms

lCERs - long-term CERs. These are credits from afforestation and reforestation CDM projects which have to be replaced once either a) no verification report is given each 5 years, b) the net sequestration decreased again or c) the end of the crediting period is reached.

Leakage - If the implementation of a project affects emissions or removals outside the project boundary, the project causes "leakage".

LULUCF - Landuse, Land-Use Change and Forestry activities

MEAs - Multilateral Environmental Agreements, such as the Convention on Biological Diversity (CBD), the Convention to Combat Desertification (UNCCD), the Ramsar Convention on Wetlands and others...

Non-permanence - As a sequestered carbon can be re-emitted in the future due to fire, pest attacks or increased land use needs, the sequestration and subsequent storage is non-permanent. In contrast, emission reductions in the energy sector cause a permanent decrease of atmospheric greenhouse gas concentrations compared to a business-as-usual scenario.

ODA - Official Development Aid

Project Design Document - The project design document contains the basic information about a project under the Clean Development Mechanism, that the project developer has to provide

Registration - The registration of a project is the formal acceptance by the Executive Board that the project is eligible as an CDM project. The decision is made upon the "Validation" by an independent organization. (see para 11. in FCCC/SBSTA/2003/L.27, page 7)

SBSTA - Subsidiary Body for Technical Advice that assists the Conference of the Parties.

Sinks - A sink is the opposite to a source. Since growing trees sequester carbon out of the atmosphere, they are often called sinks. The term "sinks" is often used synonymously for LULUCF projects. Note, that biospheric sinks can turn into sources, when the forest is cut, burned or dies at some point in the future.

tCERs - temporary CERs. tCERs are credits from afforestation and reforestation CDM projects that expire at the end of the subsequent commitment period and have to be replaced at that point. Compare to lCERs, which is the alternative credit unit for sink CDM projects.

UNFCCC - United Nations Framework Convention on Climate Change. The Kyoto Protocol belongs to this Framework Convention.

Verification - Verification is the determination of the actual carbon uptake and GHG emissions of a project done by an independent verifier.

Annex II: FOSSIL-AWARDS ON SINKS

Five out of twenty-seven fossil-of-the-day awards at CoP-9 were given in relation to Parties' performance in the CDM sinks negotiations – see below. The Climate Action Network (CAN) nominates and elects fossil-of-the-day winners on each conference day. For more detail, please visit www.fossil-of-the-day.org.

10th Dec. 2003
CANADA
Canada, again, successfully made it to the fossil podium earning 3rd place for being a poor sport in the final sinks-CDM contact group. Canada seemed to have forgotten some of the common courtesies most parties learned in the sandbox long before they arrived at UNFCCC playground. While no party was happy with the final sinks-CDM text, Parties gracefully accepted the trade-offs, and commended the co-chairs for respectfully and fairly balancing the interests of all parties. Rather than playing respectfully with other Parties, Canada chose to start throwing sand, some of it flying in the face of the co-chairs. If this wasn't enough, it gratuitously grandstanded with the only amendment which was to delete "environmental" from the reference recognizing "international environmental agreements". Parties still aren't certain whether Canada was motivated by an interest to include WTO linkages or it was just more attention-seeking behaviour.

9th Dec. 2003
CANADA, NEW ZEALAND & CHINA
For not supporting the clear exclusion of genetically modified organisms… Canada and New Zealand were recipients of a fossil on this issue last week so it's a double hit for these countries. They are rapidly genetically engineering a bad reputation for themselves. GMOs have been altered at a fundamental genetic level in ways that could never occur naturally. There have been no long term studies on their impacts and risk the creation of many ecological impacts. China joins the GMO hall of infamy this week for also not opposing the specific exclusion of GMOs, paving the way for genetically modified trees in sinks projects all around the world. So thanks for nothing Canada, New Zealand and China!

5th Dec. 2003
NORWAY & NEW ZEALAND
Both awards are about the GMO issue. Norway was found to deserve some friendly fire for temporarily chickening out on the clear GMO and invasive alien species language. Norway dropped their strong proposal on GMOs and invasive alien species like a hot potato seemingly before anyone even had a chance to oppose it!

And in an oversight from our ceremony on Wednesday, we are also disappointed to present New Zealand with a Fossil of the Day. We had hoped that New Zealand would do the right thing and support the exclusion of GMOs and invasive alien species. But no, it seems that New Zealand has decided to follow Canada and Japan down the garden path to allow genetically modified and alien invasive sinks projects.

5th Dec. 2003
COLOMBIA
For their intervention yesterday vigorously arguing for the flawed concept of positive leakage. Under positive leakage, a project developer can claim credits for carbon uptake outside their project boundary. So it seems that Columbia wants to have their cake and eat their neighbours too! Despite the fact that there would be no verification, ongoing monitoring or liability for any re-emissions. Come on Columbia, don't be so greedy!

3rd Dec. 2003
CANADA, JAPAN, ARGENTINA, FRANCE & IRELAND
For not supporting the clear exclusion of genetically modified organisms. If genetically modified organisms are planted in the name of the Kyoto Protocol, the Protocol turns into a subsidy system for the environmental experiment that is Genetic Engineering. Genetically modified organisms have been altered at a fundamental genetic level in ways that could never occur in nature. Their release into the environment poses enormous, unknown and unquantifiable risks. No long term studies have been conducted into the effects of the release of GMOs into the environment so we don't know what we are messing with! But the risks include – cross pollination with non GMO organisms, the creation of unknown toxins and allergens which can affect fauna grazing on the GMO and other unknown impacts on pollinators, the possible transmission of altered genetic material through soil bacteria and other ecological effects. Clearly a protocol designed to protect the environment has no place in supporting the release of GMOs into the environment as sinks projects or through any other means. GMOs must be excluded from sinks projects.