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### METHODOLOGICAL ISSUES

### LAND USE, LAND-USE CHANGE AND FORESTRY: DEFINITIONS AND MODALITIES FOR INCLUDING AFFORESTATION AND REFORESTATION ACTIVITIES UNDER ARTICLE 12 OF THE KYOTO PROTOCOL

### <u>Views from Parties on issues related to modalities for the inclusion of afforestation and</u> reforestation project activities under the clean development mechanism in the first <u>commitment period</u>

#### **Submissions from Parties**

### Addendum

1. In addition to the 17 submissions included in documents FCCC/SBSTA/2002/MISC.22 and Add.1 and 2, three further submissions<sup>\*</sup> have been received.

2. In accordance with the procedure for miscellaneous documents, these submissions are attached and are reproduced<sup>\*\*</sup> in the language in which they were received and without formal editing.

<sup>\*</sup> These have been submitted following a limited extension of the deadline for submissions, announced by the Chair of the SBSTA during the final meeting on 29 November 2002.

<sup>&</sup>lt;sup>\*\*</sup> 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. 1: CANADA

### ISSUES RELATED TO MODALITIES FOR INCLUDING AFFORESTATION AND REFORESTATION PROJECT ACTIVITIES UNDER THE CDM IN THE FIRST COMMITMENT PERIOD

#### ADDENDUM

### THE USE OF INSURANCE AS AN INSTRUMENT FOR DEALING WITH NON-PERMANENCE

#### 27 November 2002

#### 1. Introduction

The purpose of this addendum to Canada's 20 August 2002 submission is to elaborate its views on market insurance as an instrument for dealing with non-permanence events involving CERs from afforestation and reforestation (A&R) projects under the CDM. While Canada's views on insurance were elaborated during discussions at SBSTA 17 in New Delhi, this addendum will allow Canada's current thinking on non-permanence insurance to be more fully reflected in the options papers being prepared by the Secretariat as an element of the work plan agreed at SBSTA 16.

Canada continues to support the concept of a menu of options for dealing with any non-permanence of CERs from A&R projects. Such a menu would provide project developers with the flexibility to choose a appropriate non-permanence modalities that best suits the characteristics of their project. In proposing an insurance approach, Canada recognizes that insurance is suitable for dealing with the non-permanence risks presented by some types of projects, but not all types. Other approaches, notably the expiring CER proposals that have been advanced by Colombia and the European Union, may be more suitable for some types of projects than insurance. Accordingly, as the SBSTA 16 work plan progresses over the coming months, Canada welcomes the opportunity to work with other Parties to further elaborate an insurance modality as one option for dealing with non-permanence.

#### 2. Objectives and Advantages of the Insurance Approach

There are two objectives for using insurance as a tool for dealing with non-permanence:

- To assure the permanence of outstanding CERs that will have been issued by the CDM Executive Board (EB) for A&R projects under the CDM and may be held in a Party's holding account, retired for the purpose of compliance or transferred to another Party; and
- To use an existing financial instrument provided by service providers operating in a mature, global insurance market with high liquidity. The service providers insurance and re-insurance companies have both the tools and the experience to price risk associated with forestry-related projects in general and will be able to adapt and apply these to A&R projects under the CDM in particular.

The main advantage of using insurance to deal with non-permanence is that it provides project developers with both an economic signal as to the magnitude of risk of non-permanence and a strong incentive to minimize that risk in order to lower the cost of insurance. The price of insurance is a direct, tangible signal of the magnitude of risk facing a project, which is provided by an independent third party whose objective is to minimize financial liabilities associated with insured losses.

In terms of process, an insurance provider will assess a project's exposure to risks of non-permanence and its plan to manage these risks, and then provide a project developer with a price for CER nonpermanence insurance to cover that risk (or refuse to cover, if the project's risks are too great). The project developer can accept that price and pass along costs to the CER buyer or revise and improve the project's risk management plan to further mitigate the risks of non-permanence and reduce the cost of insurance. Thus, insurance creates a strong incentive for project developers to minimize the project specific risks of non-permanence in a way that directly reduces their cost of insurance.

The price of CER non-permanence insurance is thus an important source of information for both the project developer and the CER buyer as a clear market-based economic indicator of how risky a given project is in terms of non-permanence. Projects with high risks of non-permanence will have high insurance costs and, ultimately, higher CER prices. Buyers may then choose to avoid such projects in favour of projects with lower risks of non-permanence or agree to buy higher risk CERs knowing full well what they are acquiring.

Using insurance as an instrument to deal with non-permanence is also consistent with the principle in the Marrakech Accords that any reversal of carbon benefits must be accounted for at the appropriate point in time. If a loss of permanence occurs, the insurance provider will be required to replace any verified CERs based on the amount of carbon lost in the reversal. The insurance provider would replace the CERs with an equivalent quantify of other CERs, AAUs, ERUs or RMUs, which the recipient (presumably an Annex I Party) can use in a manner consistent with the Marrakech Accords. Thus, any reversal of carbon benefits is accounted for and replaced shortly after an actual loss occurs.

Note that using insurance to deal with non-permanence is not to be confused with any other form of insurance that a project developer may secure to cover the risks of non-performance of obligations to deliver CERs according to an agreed schedule created by a CER purchase contract with a buyer. Any provisions for this other type of insurance could be included in the CER purchase contract itself or would most likely be reviewed by the due diligence process of the buyer before entering into the purchase contract. While this other type of insurance is a contractual matter between the CER buyer and seller, non-permanence insurance would be a requirement for CERs generated by A&R projects for which the insurance approach had been chosen over other modalities for dealing with non-permanence.

## 3. Timing of Insurance

In order to make insurance of non-permanence risks work, Parties must agree in their CoP 9 decision on definitions and modalities for CDM A&R projects to create a unique, mandatory requirement to demonstrate proof of insurance at an appropriate stage of the CDM project cycle that is defined in the Marrakech Accords. In Canada's view, the appropriate stage for securing and demonstrating insurance is at the time of the certification exercise by the operational entity (OE), before CERs are issued by the EB for an A&R project.

Operationally, the project cycle defined in the Marrakech Accords requires that an OE be engaged to verify and certify the carbon benefits of a project in order for CERs to be issued by the EB. Under the non-permanence insurance approach, the project developer of an A&R project should be required to provide the OE with documentation demonstrating the provisions for the insurance and that these provisions will become effective upon issuance of CERs as part of the package of information that informs the OE's certification decision. The OE should note this documentation in its certification report to the EB. This process would ensure that the EB would be requested to issue only insured CERs from A&R projects.

Requiring demonstration of insurance at the time of certification does not preclude project developers from consulting with a recognized insurance provider earlier in the project cycle. In fact, the establishment of a requirement to demonstrate insurance at the certification stage will create a strong

incentive for project developers to have an insurer consider their specific A&R project for nonpermanence insurance purposes early on.

Tracking insured CERs after issuance will be straightforward as the CDM registry provisions of the Marrakech Accords already require each CER issued to have a unique serial number, including a project identifier. The serial number of CERs from A&R projects will allow them to be easily identified for the purposes of replacement in the case of a non-permanence event.

## 4. Holding, Transfer and Banking

As with all other units, CERs from A&R projects can be held in Parties' holding accounts, transferred between Parties and banked into a subsequent commitment period in a manner consistent with the provisions of the Kyoto Protocol and the Marrakech Accords.

## 5. Replacement in the Event of Non-Permanence

In the case of an A&R project that experiences a non-permanence event that causes partial or complete reversal of carbon benefits for which CERs have been issued, there should be a transparent, verifiable transaction to replace the compromised CERs. While there are a number of ways a replacement transaction can be constructed, the following steps illustrates an example of a transaction framework that operates with the defined CDM project cycle and involves actors identified within the Marrakech Accords. Canada would like to work with other Parties to determine an appropriate timetable for each event.

**Notification and Loss Assessment.** A non-permanence incident sufficiently large to reverse the carbon benefits for which CERs were issued should be reported by the project developer to the OE responsible for verification. The OE should in turn notify the CDM EB and undertake a quantified assessment of the magnitude of the carbon reversal. The loss assessment should employ the project's measuring and monitoring system to record and quantify the loss of sequestered carbon to the same degree of accuracy demonstrated as for gains in sequestered carbon.

**Flagging of CERs.** Upon receipt of non-permanence event notification and quantified assessment of carbon reversal, the EB should flag a corresponding number of compromised CERs from the A&R project within the CDM registry. The EB should also notify Annex I Parties' national registries that the flagged CERs, identified by serial number, are ineligible for transfer to another Party, banking to a subsequent commitment period or transfer to a retirement account for the purpose of demonstrating compliance with obligations under the Kyoto Protocol. Parties should consider whether any provisions are needed to address situations in which CERs issued from a project are held by a number of Parties and only part of the carbon sequestration is reversed so that some apportioning of flagged CERs is needed.

**Replacement and Notification.** Using the OE's quantified assessment of loss, the project developer should file a claim of loss with the insurance provider, both of which should be bound by the insurance policy to accept the OE's assessment as definitive. The insurance provider, which may have an internal process to confirm the loss to prevent fraud, would then replace all flagged CERs with CERs, AAUs, ERUs or RMUs on 1:1 basis. To ensure the integrity of the replacement transaction, the replacement units should be sourced from the holding account of the insurance provider. This holding account would allow the insurance provider to hold Kyoto units as an authorized legal entity and to engage in transactions for transfers of Kyoto units in a manner consistent with the Kyoto Protocol and Marrakech Accords. The replacement transaction should be reported to the Executive Board, which should in turn log the serial numbers of the replacement units and permanently destroy the serial numbers of the flagged CERs. Once the replacement transaction is complete, the replacement units would be eligible, in a manner consistent with the provisions of the Kyoto Protocol and the Marrakech Accords, for transfer to a subsequent commitment period (not applicable to RMUs) or transfer to a retirement account for the purpose of demonstrating compliance.

## 6. Reporting

For the purposes of avoiding double accounting, ensuring transparency and creating a record for posterity, it may be useful for Parties to note in their annual reporting on all Kyoto units under Article 7.1 any units that have been used to replace CERs from A&R projects due to non-permanence-related replacement transactions.

## 7. Independent Transaction Log

The independent transaction log should perform checks to ensure that no currently flagged CERs are retired, transferred or banked. The transaction log should also check the replacement transaction log created by the EB against Annex I Parties' registries with a view to ensuring that no replaced CERs (i.e. with destroyed serial numbers) reside in a Party's retirement or cancellation accounts or have been transferred or banked.

## 8. Expiry of Insured Liability

In order to be consistent with paragraph 5 (b) of Article 12 of the Kyoto Protocol, the permanence of CERs from A&R projects under the CDM must be maintained for a period of time of sufficient duration so as to be of benefit to the mitigation of climate change. Accordingly, insurance against non-permanence must be maintained for all CERs from A&R projects for an appropriate period after the year of issuance. At the same time, any provisions to maintain insurance must not be an undue impediment to the development of A&R projects that ultimately benefit host countries. Canada would like to work with other Parties to determine what the appropriate period should be.

#### PAPER NO. 2: INDONESIA

### INPUT FOR SUBMISSION ON CDM-LULUCF

#### Introduction

In the 17<sup>th</sup> SBSTA it has been agreed to the COP 8 that accounting methodology of the LULUCF sector in the CDM, as well as the definition of forest will still be opened for discussion. These include issues such as leakage, non-permanence, additionality, uncertainties and socio-economic and environmental issues including impact on biodiversity and natural ecosystems that are to be decided at COP9.

Indonesia believes that among others, the important issues that should be addressed carefully related to LULUCF CDM projects are issues of definitions and permanence including modalities for including afforestation and reforestation project activities in CDM. Indonesia looks forward to working cooperatively and constructively with all other parties towards that end.

#### **Definition on Forest, Afforestation and Reforestation**

In the COP7 Marrakech, it has been proposed that for the purposes of accounting in the sector, the following definitions were established:

- Forest is a minimum area of land of 0.05-1 hectares with tree crown cover of more than 10 30% with trees with a potential to reach a minimum height of 2 –5 metres in-situ. A forest may consist either of closed forest formation where trees of various storeys and undergrowth cover a high proportion of the ground or open forest. Young natural stands and all plantations that are expected to meet the definition of forest in the future are included. For the purposes of accounting, each annex 1 country is to choose a definition within these parameters.
- Afforestation is the direct human induced conversion of land that has not been forested for at least 50 years.
- Reforestation is the direct human induced conversion of non-forested land to forest. For the first commitment period reforestation activities will be limited to those areas that were not forested on 31 December 1989.

Decision 11/CP.7 has recommended that the above definitions apply to LULUCF activities for Article 3.3 and 3.4 BUT NOT for Article 12 (CDM). Indonesian views on the above issues are that adopting the above definition for CDM may limit the capacity of developing countries, in particular tropical countries, to participate in CDM. There are a number of reasons why those definition will affect the capacity of developing countries, those are:

- a. Time Frame of 31 December 1989 and 50 years as non-forested land.
- For some Non Annex-1 countries, it is difficult to obtain accurate and reliable data on forest cover more than 10 years back. Meaning that land that are non- forest now, and were non-forest in 31 December 1989 in situ.
- Kyoto definition on reforestation will not fit in to the reality in the tropics especially in Indonesia, where natural regeneration and regrowth of the pioneers after felling/logging in 31 December 1989 was very rapid and abundant, of which by definition was formed a "forest" with height 2 5 m and crown closure 10–30%. In fact they are categorized as shrubs, bushes or thickets that poses low productivity value especially in term of economic value.
- Often the definitions used to classify forest in 1990, are not compatible with the Kyoto definitions valid just recently. Each non Annex 1 country has its own definition on forest.

- Important development program in Indonesia was started in 1978, means less than 50 years to fulfill the Kyoto definition for afforestation.
- Lands that have been cleared 50 years back are in reality consider as heavily depleted soil that need high input and high technology to rehabilitate (open rock soils, bare lands, silt soils, *pirit* soils, heath soils).
- In reality for the most non Annex 1 countries, a significant open area or non- forest area were not existed before 1950.
- Remote sensing technologies available before 1990s were not able to identify non-forest area accurately with size of less than 1.0 ha.

Thus, the use of time limit of 31 December 1989 for reforestation may limit the ability of non-Annex 1 countries to participate in CDM project. Similarly, the use of 50 years as time limit for afforestation will also reduce the ability of non-Annex 1 countries to participate in CDM projects Crown cover.

b. Crown cover.

- The trade off is difficult to qualify or quantify without substantial crown cover spatial data sets across large areas of Indonesia. The 10% crown cover may enable potential wide spaced agroforestry projects to achieve a land use change and potentially be eligible, whereas the 30% crown cover may prevent some wide spaced projects being included.
- The tropical forests have a rapid regrowth of woody plants (such as thickets), this may impact the potential of previously cleared lands (in 1990) to meet the crown cover definition for Kyoto eligibility as a proportion of these lands will have regrown closely and no longer meet the crown cover definition.

c. Tree height.

- The trade off is difficult to qualify and quantify without significant effort to analyse the impact of one decision or the other.
- Most degraded unproductive lands in the tropic covered by thickets, bushes, shrubs that attained height 2 5 m. These vegetation types complies the Kyoto definition, however, in reality they are unproductive and fallow land. So again this definition limit the improvement of the unproductive vegetation cover to become competitive high value of vegetation cover.

The current forest definition ignores stand value of forest (Stumpage). It only considers land size, tree height and crown cover. Most of degraded forests in tropical countries will grow and meet Kyoto forest definition but with no economic value (no stumpage).

Using current definition of AR a large area of degraded lands in the humid tropics will not be considered as Kyoto lands, since these lands still meet forest definition of the Kyoto and thus they are not eligible for CDM. In reality, there are vast area of degraded forest in tropical countries, in which under the definition of the Kyoto they are considered as forest.

Keeping the current forest definition without considering the economic value as incentive to support the sustainable development of host countries, rehabilitation of degraded forest through enrichment planting will not be eligible under CDM. Thus, the forest definition should reflect the common understanding on a forest, that is, composed of trees and associated vegetation with dynamic interaction of flora and fauna, and has socio-economic and environmental values.

Therefore, Indonesia proposes that the current definition should not be used for CDM. Modification of the current definition to match developing country realities should be seriously considered. Afforestation should be allowed to occur in regions where natural vegetation is not considered as forest without specific time limitation, as long as it meet environmental additionality Reforestation should include

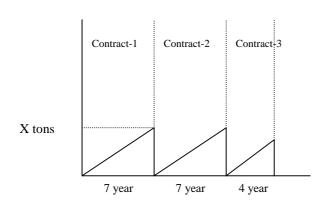
restoration of degraded/critical forests, introduction of agro-forestry systems, or enrichment planting, and the time limit should be deferred from 31 December 1989 to 31 December 1999.

#### Permanence

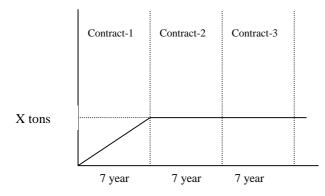
Forest vegetation for a number of reasons has considered as non-permanent sink, and some approaches for carbon accounting have been proposed such as TCER, ton-year approach CER, and CER equivalent adjustment. Considerable differences in CER obtained from the three different approaches will affect the level of benefits obtained by host countries in terms of sustainable development purposes. Furthermore, the adoption of permanence rule on CDM-LULUCF will create difficulties to developing countries in achieving sustainable development, as it will limit the flexibility of developing countries to use the land for other purposes that provide better economic opportunities.

Therefore, Indonesia considers the importance of resolving various issues on the use of Temporary CER (TCER) during the subsequent meetings before COP-9, if the objective of the Article 12 of the Kyoto Protocol to assist non-Annex I country parties in achieving sustainable development to be met. Indonesia also considers that lifetime of CER for LULUCF should depend on contract agreements between sellers and buyers but it should not be more than the lifetime of the project. If the sellers could maintain the lifetime of the project longer than the contract period, the buyers could make another contract with sellers for extending the validity of the CER. The illustration of this concept is presented in the following figures.

#### 1. Reforestation or afforestation with 7 years rotation



2. Reforestation or afforestation without rotation



The value of CER=0.5X

Suppose, Buyer and seller agree to have contract for period of 7 years with certain carbon price. The buyer is eligible to receive CER equivalent to 0.5 X which valid for 7 years. The buyer may extend the validity of the CER for another 7 years under new contract. If under new contract, the seller could not maintain the trees in the project area (see Contract-3), the seller should replace with new planting area or pay the penalty to the buyer

Under non-rotation system, for the first contract, the buyer is eligible to receive CER equivalent to 0.5 X tons which is valid for 7 years. If the buyer and seller extend the contract for the second 7 years period, the buyer is eligible to receive CER equivalent to X tons C which valid for 7 years. If the buyer and seller extend the contract for the third 7 years period, the buyer will eligible to extend the validity of the CER for another 7 years.

### **Baseline and Additionality.**

Indonesia proposes the adoption of using simple logical arguments to determine Baseline and Additionality. Given lack of capacity of non-Annex 1 countries to reforest their degraded lands and forests, and there is an indication that without any new initiatives national carbon stock in many developing countries tends to decrease (baseline case), any new initiatives for increasing planting rate should meet additionality criteria.

## PAPER NO. 3: SWITZERLAND

## Definitions and Modalities for Including Afforestation and Reforestation Activities under Article 12 (CDM) of the Kyoto Protocol

### INTRODUCTION

Switzerland underlines the need for additional criteria to be considered for sink projects under Article 12.

We foresee no need for a specific set of definitions for the terms *forest, afforestation*, and *reforestation* under the CDM. However, since modalities appear to be of most crucial importance for the environmental integrity of sink projects under the CDM, our submission will focus on modalities.

In particular, issues related to non-permanence, additionality, socio-economic and environmental *impacts*, require further elaboration of existing modalities for CDM projects. *Leakage* and *uncertainty*, on the other hand, are to a minor degree particular to sink projects. Therefore, in our view, they are best and more effectively dealt with indirectly, i.e. by defining appropriate modalities under *socio-economic* and *environmental impacts*.

## DEFINITIONS

For the sake of consistency and efficiency, the same definitions as developed for Articles 3.3 and 3.4 of the Kyoto protocol and as contained in the Marrakesh Accords<sup>1</sup> shall be applied for sink projects under article 12 (CDM). This applies to the terms *forest, afforestation*, and *reforestation*.

The terms *deforestation*, *revegetation*, *forest managment*, *cropland managment*, and *grazing land management* are at most indirectly of relevance under article 12, i.e. they may in some instances merely help to identify more precisely under which circumstances any of the terms *forest*, *afforestation*, and *reforestation* actually apply.

Considerations on definitions in the context of article 12 clearly demonstrated the need for a definition of the term *devegetation* at future meetings.

### **MODALITIES**

### **Non-Permanence**

The temporary nature of the CERs issued after verification is a pragmatic basis to address nonpermanence of sink projects on the accounting side (e.g. "Colombian Proposal"). Factual permanence, however, must be established by lowering the risk of non-permanence inherent to the project by means of an effective socio-economic and environmental impacts assessment at the initial state of a project relevant for the project's validation (see also below).

Temporary certificates (TCERs) create buyer liability, impose uncertainties on project developers, and therefore lower investment incentives. Risks associated with the release of carbon sequestered by the project could be offset by private insurance companies who will compensate for non renewed TCERs due to sink reversal. In the spirit of following a "safe fail" and "fail safe" approach at the same time, we support the insurance solution only in combination with TCERs, as they clearly define monitoring obligations and liability.

<sup>&</sup>lt;sup>1</sup> FCCC/CP/2001/13/Add.1 p. 58ff.

The lifetime of a sink project should exceed the crediting period for projects under Article 12 as outlined in the Marrakech Accords (para 49 in Annex to 17/CP.7). Ideally, the risk of carbon release after project implementation calls for an indefinite project lifetime. However, a more pragmatic time horizon needs to be envisaged, e.g. 50 or 100 years.

### Additionality

In defining appropriate baseline assumptions, sink projects create additional difficulties due to the natural growth of forests. The latter takes also place in the absence of human influences, i.e. whenever and wherever ecological conditions allow for the growth of trees. As only human induced carbon sequestration qualify for the issuance of credits, a pragmatic factoring out is needed. In order to credit the acceleration of the tree growth due to human inducement, we suggest a fixed devaluation factor. The actual value for this factor is to be based on verified carbon sequestration as estimates as determined by corresponding work from the IPCC.

### Socio-economic and Environmental Impacts

Not only sustainability criteria, as defined by the host country, are to be met by project developers, but also do we need to address the range of impacts on socio-economic and environmental conditions, which are particular to sink projects. An overall environmental and socio-economic impact assessment shall be part of the project design documents submitted to the designated operational entities for validation. Modalities are to be developed, to enclose both climatic change, environmental, notably biological diversity, as well as socio-economic aspects.

Evidence from differing pilot studies of comparable projects demonstrates that the quality of sink projects may greatly vary from project to project. Some studies report of environmentally and socially beneficial effects, some of likely negative side effects onto the environment and the socio-economic conditions. Consequently, projects need to be properly implemented and carefully planned in an early project phase for an effective validation. Moreover, criteria are needed, which allow to curb negative effects and to foster mutually beneficial results in a balanced way. Balanced means to prevent "bad" projects from being implemented at all while helping "good" projects to get implemented effectively with minimal transaction costs. In our view, one promising way to achieve this goal is by strengthening the links between the UNFCCC, the UN Convention to Combat Desertification, the RAMSAR Convention, and notably the CBD.

In particular, we see much merit in the recommendations by the "Ad-Hoc Working Group on the Interlinkages between Biological Diversity and Climate Change" from the CBD targeted at the design of sink projects. In our view these recommendations can be summarized as follows:

- *(i) development of a common UNFCCC-CBD accreditation scheme, e.g. by having identical modalities in both conventions;*
- (ii) conservation of biodiversity and other environmental impacts are to be addressed already in the planning phase of a project;
- (iii) socio-economic impacts are to be addressed already in the planning phase of a project;
- *(iv)* requirement of strategic links from the project to the host country's overall policies and programs;
- (v) definition of monitoring procedures and indicators in such a manner, that they allow for an adaptive management ;

improvement in the efficiency in collecting indicators, which allow to monitor and evaluate (vi)sink projects in the context of the UNFCCC and its Kyoto Protocol in a continuous, efficient, and transparent manner.

Consequently, sinks projects shall be subject to an Environmental-Socio-Economic Impacts Assessments  $(ESIA)^2$ , as stated in paragraph 37 of the Marrakesh Accords<sup>3</sup>. Such an assessment should consist of two steps:

- Preparation of the ESIA report<sup>4</sup> by the project developer; 1.
- 2. Validation of the project by the operational entity based on the ESIA report on behalf of the CDM board;

Strategic Environmental Assessment (SEA), i.e. a systematic, decision-aiding procedure. It could help to ensure or at least make it more likely that a project succeeds in its verification. SEA would certainly help to evaluate in an on-going decision process the likely effects of decision options throughout the projects lifetime. Because of the inherent longevity of sink projects, this aspect is of particular importance. Finally, it is important to get local stakeholders involved from the earliest stages of a project throughout the entire project's lifetime. Again, SEA offers many advantages for involving local stakeholders effectively.

Any ESIA should address the following check list of criteria:

Environmental indicators

- Increase or at least preservation of diversity
- Increase or at least preservation of soil fertility
- Planting of non genetically modified organisms
- Planting of indigenous, native species
- Establishment of multi-species culture or at least big diversity at the landscape level ("ecosystem approach")
- Sustainable soil preparation
- Sustainable silviculture
- Minimal leakage (no displacement of demand, e.g. for agricultural land or fuel • wood)
- Agroforestry approaches are welcome as long as they meet the forest definitions of • the Marrakesh Accords

Socio-economic indicators

- Improvement of living conditions and local livelihood •
- Development is sustainable •
- Reducing rural emigration ٠
- Avoidance or minimization of land-use conflicts •

<sup>&</sup>lt;sup>2</sup> It is important that such a report takes into account environmental as well as social parameters in accordance with paragraph 37 of FCCC/CP/2001/13/Add.2 p. 34 <sup>3</sup> FCCC/CP/2001/13/Add.2 p. 34

<sup>&</sup>lt;sup>4</sup> Sometimes called EIAS – Environmental Impacts Assessment Statement

- Clear land tenure and legal entitlement of land ownership of all involved groups (project developers, local stakeholders, host country)
- Involvement and integration of local stakeholders in decision and management process
- Project acceptance among local stakeholders (relevant only for verification)
- No deterioration in equity among local stakeholders

Above "check-list" provides criteria, which are needed for the validation as well as for the verification of a sink project under the CDM (unless explicitly stated otherwise). The more criteria are met, the better the project is to be ranked, e.g. by a point system. These criteria should be applied in a flexible manner to accommodate particular needs of the situation, the local conditions, and the specific needs and goals of the host country. This is important, since some of the criteria may not even apply to a given sink project under the CDM. Not the least, we expect the CDM board to take appropriate measures to ensure that these criteria are handled in practice in a fair and comparable manner in all cases, so that sink projects under the CDM serve the ultimate goals of the climate convention and the Kyoto protocol.

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