Sustainable Management of Tropical Forests: Role of ITTO in climate change mitigation and adaptation and in assisting members in formulating an integrated forest sector response

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Forests play a central role in climate change



Forests emit GHG

Forests can increase resilience, fix and maintain carbon

Forests in Climate Change: Forests can increase resilience, fix and maintain carbon

- If average C02 concentration continues to increase to 550 ppm or higher, <u>forests will become highly vulnerable</u> and risk becoming an additional factor to increased GHG concentrations in the atmosphere
 - Forests are a mitigation option now and over the next 30 to 40 years as a necessary transitional measure towards a low carbon economy
 - Need to increase resilience of forest trees and ecosystems at the same time as using forests as a mitigation option.
- Nevertheless, presently, the <u>potential of forests as a mitigation option</u> is huge (REDD, Afforestation/Reforestation, Forest Restoration; SFM)
- How to deal with these new <u>risks</u> and <u>potentials</u>, considering the many governance issues prevailing in forests (rights, tenure, access, land use planning, benefit sharing, law enforcement...)?

UNFCCC and Forests



... maintaining and increasing ecosystem C pools and C sequestration – reducing <u>emissions from bio</u>sphere ... maintaining and increasing ecosystem resilience – reducing vulnerability

The role of SFM in climate change adaptation

 Forest ecosystems are affected by climate variability/change: What are the direct and indirect impacts on

 forest-dependant people?
 the forestry production chain?
 at the landscape level?

- How can forest contribute to reduce vulnerability (of social systems and ecosystems)?

→ An SFM agenda including CC adaptation analysis and measures can increase the value of the forests.

Mitigation Options in Forestry (fix and maintain carbon in the vegetation and soils)

<i>Mitigation options (general)</i>	Mitigation options (in the forest sector)
CO2 Sequestration	Afforestation (CDM: on land not forested for at least 50 yrs.)
	Reforestation (CDM: on land not forested on/after 1.1.1990)
	Forest Restoration (Not defined in CC: restore degraded carbon stocks)
Emission Reduction of GHG	Reducing deforestation and forest degradation (REDD)
	Committing forests as carbon reservoirs
Substitution of C	Use of wood products, including timber and forest biofuel

IPCC Fourth Assessment Report, Working Group III 15/05/2007: Chapter 9 Forestry



Forest mitigation strategies should be assessed within the framework of sustainable forest management, and with consideration of the climate impacts of changes to other processes such as the hydrological cycle.

(1) Carbon sequestration: **A/R and Forest restoration**

Reforestation, Afforestation Forest Restoration □ From non-forest to forests, e.g. according to CDM rules

From degraded forests to fully carbon stocked forests



(2) Emission Reduction: REDD

 Not all deforestation is undesirable. Deforestation is needed to feed people, to contribute to economic development. However, deforestation should be discouraged when:

 it is not efficient from an economic viewpoint;
 The land use it is connected to is unsustainable – it is a threat to environmental stability; and
 it leads to social inequities and conflicts



 How to commit and manage forest areas as carbon reservoirs?
 Use the concept of Permanent Forest Estate
 SFM includes a range of activities that are in line with REDD: maintaining existing carbon reservoirs + forest restoration

Tropical countries' forest endowment: Distinct situations, different approaches needed



Committing forests as a CC adaptation and mitigation option: Some overarching issues

- Creates co-benefits that counts (timber, biodiversity, soil conservation)
- Potential to generate annual funds in the order of several billion US\$
- Alternative development pathway: if well designed, implemented and policed, at national and <u>local</u> level, can directly benefit rural /forestdependent people

Maintain a realistic perspective on the potential to commit forests as CC mitigation/adaptation option: Countries with a high potential income from CC mitigation score low in governance:

- Do not succeed in lowering D&D rates;
- Unable or unwilling to pass incentives to the real D&D drivers
- \rightarrow An obvious link to Sector Governance
- → Some hard decisions to make?

What has already been agreed?

→ Agreements are done for the first Commitment Period of the Kyoto Protocol (2008 – 2012)

- Annex I (industrialized countries)
 - Forest management
 - Afforestation, Reforestation and Avoided Deforestation

Bioenergy

- Non-Annex I (developing countries)
 - ■Using the CDM
 - Afforestation and reforestation (11 approved methodologies)
 - Bioenergy (1 approved methodology yet)

Piloting phase in Reducing Emissions from Deforestation and Forest Degradation (REDD)

The use of wood products is not eligible at all for the first commitment period (neither Annex I, nor non-Annex I countries)

What is under negotiation – to be negotiated?

Post 2012 Regime \rightarrow to be agreed by COP 15 in Copenhagen

Bali Action Plan and Forests

■ Which countries will agree to make commitments?

- Which forest mitigation options will be eligible in industrialized countries?
 - Role of wood products

■ Which forest mitigation options will be eligible in developing countries?

- REDD and payment mechanisms
- Simplifying the CDM
- Role of other forestry activities such as forest restoration and management of natural forest management?

Sustainable Forest Management: an instrument to maintain carbon pools, increase carbon stocks and increase resilience

- ⇒ The permanent forest estate
 - Protection forests
 - Production forests
- Quantification tools (REDD)
 - National baseline scenario (national forest inventory; register of committed forests)
 - Local accounting of social and economic costs and benefits, carbon monitoring
- Which actors?
 - Direct forest users
 - Forest owners
- What incentives?
 - Adapted to local needs
 - Transformed in CERs that are internationally marketed (REDD, CS)

The potential role of ITTO

Making SFM a realistic approach as a mitigation option in forestry:
(1) REDD, reduced emissions from deforestation and forest degradation
(2) carbon sequestration (through CDM A/R and forest restoration)
(3) Reducing emissions by managing existing forests sustainably



- Additional funds for SFM (market payments or non-market incentives)
- Country-level decision and sovereign enforcement of committed forests within the Permanent Forest Estate
- Support in forest governance (a pre-requisite for the inclusion of forests in CC)

ITTO and forest mitigation options

Recognize the opportunities: utilising flexible approaches and approaches adapted to the situation; help shape the tropical forest agenda in the UNFCCC

Strengthen ITTO's members to integrate the wider forest mitigation options

 Integrating a combined sequestration/emission reduction agenda in forestry
 Quantifying emissions from DD and the sequestration potential of forests
 Clarifying which forests are to be committed as C reservoir
 Capacity building on forest mitigation options (REDD, CDM A/R, For. Rest.)

 Ensure the understanding of SFM for REDD

- SFM allows an integrative use of the forest, reducing GHG emissions while producing timber, NTFPs and other services
- Include forest restoration as an additional carbon sequestration option ("CDM post 2012")

Ensure the inclusion of ITTO's experience in the discussion on REDD

- **For designing modalities and procedures for REDD/forest restoration**
- For estimating investment and designing financial flows for the forest carbon market

A particular look: ITTO and REDD

Recognize what is common in the forest mitigation agenda between ITTO and UNFCCC:

Inclusion of concepts of PFE, SFM, forest restoration and committed forest as a carbon reservoir

SFM, including production forestry, needs to be considered as an eligible activity in any REDD mechanism, a part of forest conservation

Any REDD agreement should recognize the sovereignty principle. National forest authorities are to be included in the decision-making on any REDD mechanism

➡ ITTO's project experience is key for defining modalities and procedures in any REDD mechanism and/or other future forest mitigation options

ITTO and Climate Change Adaptation

Maintaining and increasing tropical forest ecosystem resilience – reducing vulnerability of ecosystems and forestdependent communities in the tropics

Participate at country level in the integration of forests in the NAPA

- Impacts on forest-depending people, forest products and services due to CC
- **Forests as coping strategy for extreme events**
- Forest ecosystem resilience
- Strengthening forest ecosystem resilience through SFM
 - **Forest ecology**, silviculture
 - **Control and mitigate effects of extreme events (fire, droughts, biological calamities)**
- Capacity building on adaptation options in relation to forests
 - **For designing modalities and procedures**
 - For the integration of forest-based adaptation measures in livelihood approaches

Forests and global change...

Climate Change

- Increase in human population
- ⇒ Increase in degradation of land
- Depletion of natural resources
- Deforestation
- Accumulation of waste
- Pollution of all kinds
- Abuse of fresh water reserves
- Destruction of biodiversity...



→ The main difference between the past and today is that our problems are truly global now. Need to look beyond the sector. SFM is part of the solution package.