

# Reducing Emissions from Deforestation in Developing Countries (REDD)

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#### **Outline of presentation**

- ✓ Deforestation and climate change
- ✓ RED and Post-2012
- ✓ On-going process for REDD:
  - Mandate by COP11
  - SBSTA24 and main outcomes of first workshop
  - Main outcomes of second workshop
  - Proposals by Parties
  - × SBSTA26: Elements of draft decision
  - × SBSTA27 and expected outcome at COP13 Bali



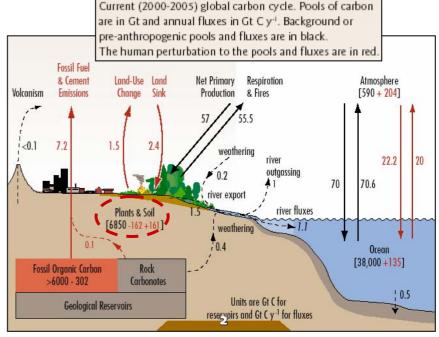


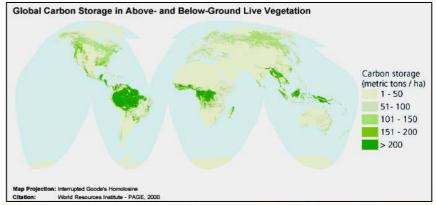
#### **Forests**

Forests play an important role in global C budget, acting either as sinks or sources of C.

Total C content of forest ecosystem estimated about 638 Gt C (in 2005, FAO), which is more than the amount of C in the atmosphere

Tropical forests store, on average, about 50% more C per unit area, than forests outside the tropics







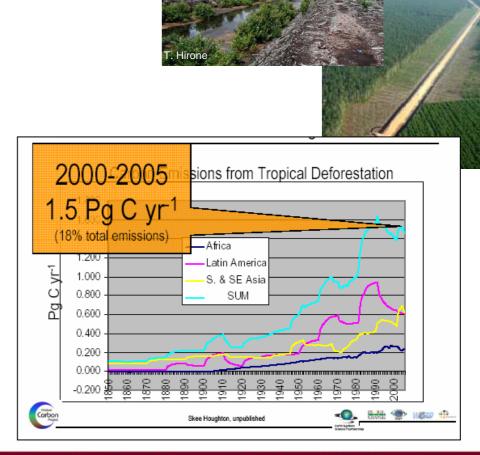


#### Deforestation

Global deforestation was estimated at 13 million ha/yr for 1990-2005 (FAO 2005)

Deforestation and forest degradation result in substantial reductions in forest carbon stocks and increase in emissions.

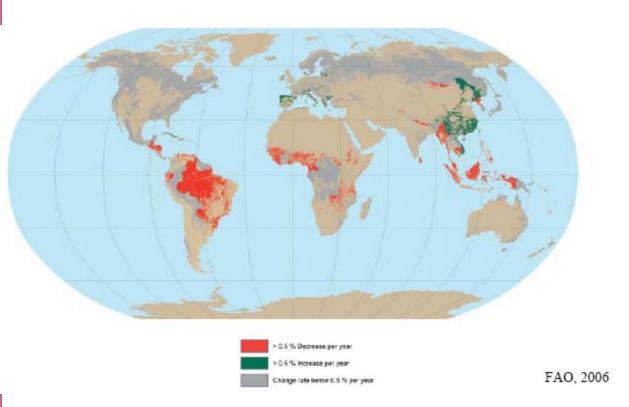
IPCC WG1 estimated emissions from deforestation since 1990s at 5.8 GtCO<sub>2</sub>/yr.



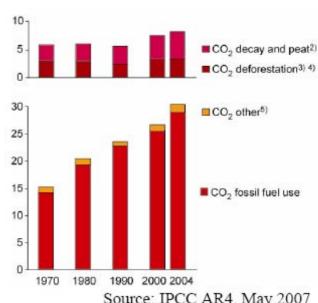




#### Deforestation



#### **HOW MUCH?**



Source: IPCC AR4, May 2007

#### WHERE?

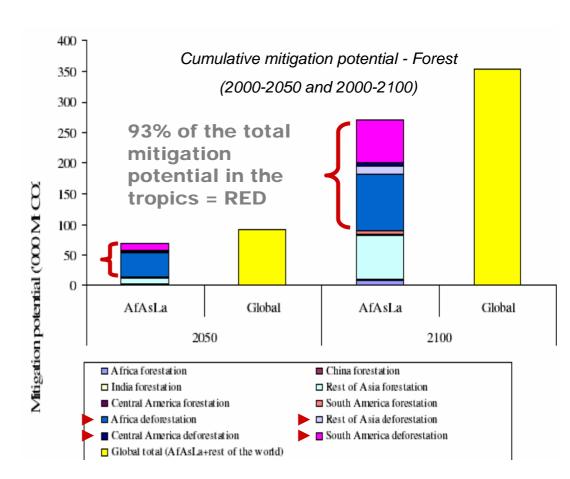




#### **Attractive Mitigation Option for the Forestry Sector (IPCC AR4)**

Reduced deforestation and degradation is the forest mitigation option with largest and most immediate C stock impact (IPCC WGIII, AR4)

Large C stocks, 350-900 tCO<sub>2</sub>/ha, prevented from release into atmosphere.



Under the 2.7 US\$/tCO2 +5%/yr annual carbon price increment.

IPCC 4AR WG IIII; Sathaye et al. 2007.







#### Other benefits

Large positive implications for environment, biodiversity conservation and sustainable development

Potential large implications for adaptation





#### **Costs**

Mitigation costs of reduced deforestation depend on:

- ✓ cause of deforestation (e.g. timber, agriculture, infrastructure),
- ✓ returns from alternative forest/ non-forest uses.

✓ and any compensation paid to landowners to change land use practices



Costs vary by country and region, but on average costs are low.



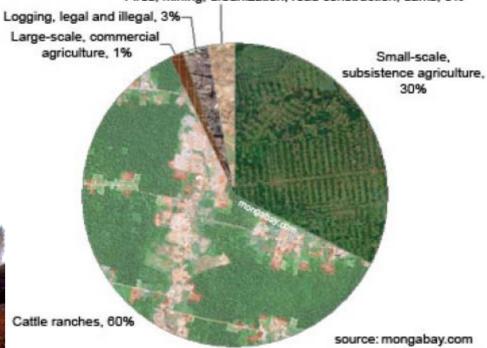






#### Causes of Deforestation in the Amazon, 2000-2005

Fires, mining, urbanization, road construction, dams, 3%











**Reducing deforestation** 

Large potential
Short term
Other benefits
Low cost

A high priority mitigation option in tropical regions

#### **REDD**

On-going process under UNFCCC







#### Basis at UNFCCC (pre-COP11, 2005)

- Under UNFCCC, **Article 4.1(d)**: All Parties shall ... promote sustainable management, promote and cooperate in conservation and enhancement ... of sinks and reservoirs of all GHGs ... including biomass, forests ...
- Annex I Parties <u>report emissions from deforestation</u>, under the UNFCCC and the Kyoto Protocol, in annual GHG inventories
- Issue of deforestation brought up during <u>deliberations on eligible</u> <u>LULUCF activities under the CDM</u>
- At Marrakesh, it was decided that LULUCF activities under CDM limited to afforestation and reforestation (16/CMP.1, 5/CMP.1)





#### **Concerns that excluded RED at 1CP:**

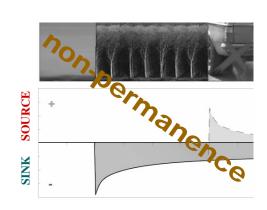
#### Methodological concerns:

**leakage** and whether emissions beyond project and country boundaries could be controlled

**non-permanence** – emissions due to natural/ anthropogenic disturbances at a later date

**baseline setting and additionality** – uncertainties of estimates, how much has been avoided vs. business-as-usual

**Scale** of possible emission reductions
-issuance of carbon credits flooding the market,
Annex I Parties taking less effort to reduce emissions at point



**Other** (illegal logging control, ownership of the land, etc.)







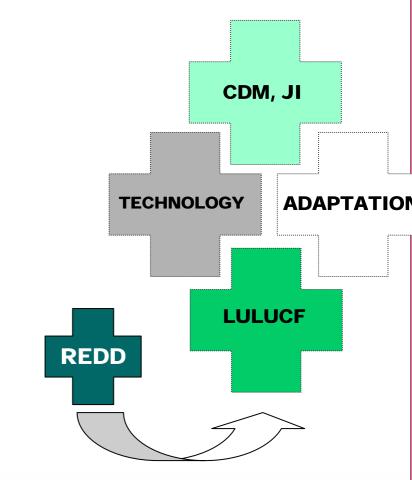
#### ... a building block of post 2012

Future action under the Convention.....

"Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention"

Items that have been addressed:

- Advancing development goals in a sustainable way
- Addressing action on adaptation
- Realizing the full potential of technology
- Realizing the full potential of market-based opportunities

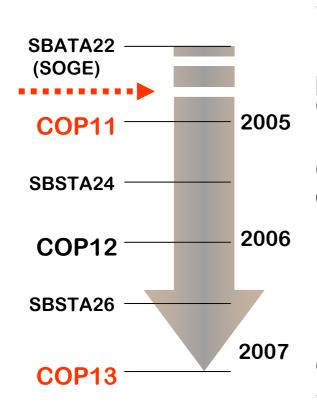








#### COP11 mandate... the process



Submission by governments of PNG and Costa Rica (FCCC/CP/2005/MISC.1) to **COP11** (Montreal, 2005) called for COP to consider possible approaches to address issue > **new COP Agenda Item** 

COP (11) invited Parties and accredited observers for **submission of views** on relevant:

- scientific, technical and methodological issues;
- information and experiences on policy approaches and positive incentives

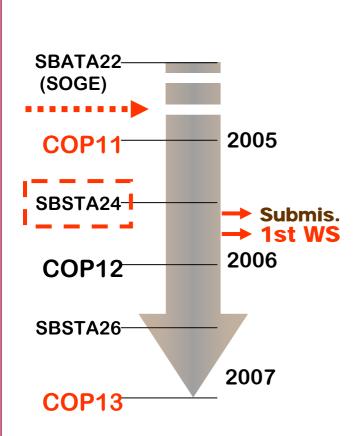
COP (11) requested SBSTA to consider issue at SBSTA 24 launching a process of 2 years ending with SBSTA27 reporting back at COP13 (Bali, 2007) including any recommendation







#### **Outcome at SBSTA 24**



Initiated consideration of information in **submissions** by Parties and by accredited observers (FCCC/SBSTA/2006/MISC.5 and Add.1)

- 21 submissions received (views of 68 Parties)
- 4 submissions from IGOs, 13 submissions from NGOs

And **scope of first workshop** on reducing emissions from deforestation (RED) in developing countries

Preparation of **background paper** to facilitate discussions at workshop







#### First Workshop on RED

- Rome, Italy; 30 August 1 Sept 2006 (Report on FCCC/SBSTA/2006/10)
- Opportunity to share experiences and consider relevant aspects of REDD. Main topics were:
  - Scientific, socio-economic, technical and methodological issues (carbon cycle, definitions, data availability, drivers of deforestation, estimation of stocks)
  - Policy approaches and positive incentives to reduce emissions from deforestation (causes, international cooperation, SFM, capacity building, financial mechanisms)
  - c) Identification of possible links between (a) and (b)
- Scope of background paper:
  - Focusing on themes (a) and (b) above
  - Synthesis of relevant information in NCs
  - Synthesis of relevant information from submissions by Parties and accredited observers

(Full paper: http://unfccc.int/methods\_and\_science/lulucf/items/3757.php )







#### Main Outcomes – 1<sup>st</sup> Workshop Technical and Methodological issues

- Tools and methods available. Science is robust enough to monitor and estimate emissions. Lack of capacity to use tools and methods. Require financial support and technical capacity building
- Different definitions for forests and forest-related processes exist.
   Led to different estimates of GHG emissions.
- On definitional issues, **consideration still needed** on:
  - using existing definitions, modify existing definitions or develop new definitions?
  - definitions for processes that do not result in land-use change (e.g. degradation)
  - different forest types and related terminology
- Need to consider **all GHG emissions**, not only changes in C stocks (i.e. non-CO<sub>2</sub> GHGs)?







#### Main Outcomes – 1<sup>st</sup> Workshop Policy approaches and positive incentives

- REDD should contribute to meeting UNFCCC ultimate objective, alleviation of poverty. Should not weaken efforts to reduce emissions from other sources/sectors
- Important to consider drivers of deforestation (e.g. socioeconomic factors), most causes lay outside forest sector
- National, bilateral and multilateral efforts to reduce deforestation in place. But financial and institutional constraints exist
- Promotion of SFM important to ensure efforts to reduce deforestation successful on the long term





#### Main Outcomes – 1<sup>st</sup> Workshop Financial mechanism and other alternatives

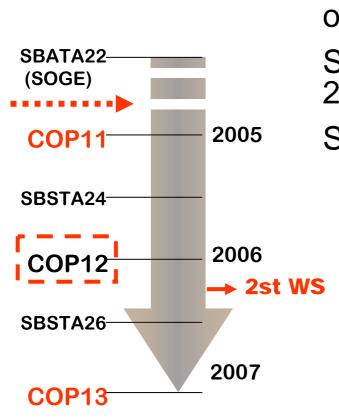
- Possible sources of funding: ODA, establishment of funds, multilateral sources, public-private partnerships, PES, market mechanisms
- Consideration of approaches to reward actions to REDD needs to be broad and include several alternatives
- Need for additional and innovative financial mechanisms, as well as reinforce existing support
- Up-front financing needed for institutional and technical capacity building
- Implementation of actions on the ground require long-term, sustainable funding
- Important that rewards/ compensation reach "actors" on the ground. Institutions play major role







#### **SBSTA25/ Second Workshop**



SBSTA requested the secretariat to organize second workshop on issue

Second workshop was held 7 – 9 March 2007 in Cairns

Scope of second workshop:

- ☑Ongoing and potential policy approaches and positive incentives
- ☑ Technical and methodological requirements related to their implementation, assessment of results and their reliability
- ☑ Improving understanding of reducing emissions from deforestation in developing countries







#### **Second Workshop**

- Workshop provided opportunity for improving understanding of different proposals on policy approaches by Parties
- Parties and accredited observers also provided views on topics of the workshop to facilitate discussions
  - 21 submissions received from Parties, representing views of 69 Parties (FCCC/SBSTA/2007/MISC.2 and Add.1)
  - Submissions provided comprehensive views on how to address actions to reduce emissions from deforestation
  - 6 submissions from IGOs (FCCC/SBSTA/2007/MISC.3)
- At Workshop, there was general agreement on number of issues. Some aspects needed further consideration and discussion





## Main Outcomes (2<sup>nd</sup> Workshop) General

- Recognize urgent need to take meaningful actions to reduce emissions from deforestation (RED) in developing countries
- Early action to REDD need additional resources
- Early action could include capacity building activities and actions on the ground (e.g. pilot projects)
- Governments could work through international organizations to implement early action activities
- Recognized that actions under UNFCCC complements goals of, and enhances synergies with, other multilateral processes





#### Technical and methodological requirements

- General agreement that existing methods and tools are robust enough to estimate emissions from deforestation
- IPCC Guidelines and GPG good basis for estimation of emissions
- Need to improve data availability for better understanding of actual rates of deforestation at national and global scales
- Only C losses from land conversion (deforestation) be taken into account. Gross emissions vs net emissions?
- Need for solid monitoring to allow replication of results and reduce uncertainties. Need to avoid double counting
- Need for capacity building on compiling national LULUCF
   GHG inventories for participation in any arrangement later







#### Technical and methodological requirements

### Establishing a reference emission rate/ baseline against which to measure emissions reductions

- based on emissions from historical deforestation rates over a chosen period of time
- projected baseline that take in account possible future trends
- use of a carbon stock approach as alternative (assess national C stock at reference period)

#### Baselines setting:

- Measured at national level to avoid leakage
- Using project or community approach to draw baselines

#### Issues requiring further consideration:

- Baseline reviewed and revised periodically;
- How to take into account any early actions on REDD into the baseline;
- Where to draw line between end of baseline and the start of early action
- Establishing baselines for Parties with historically low rates of deforestation







#### Technical and methodological requirements

#### **Definitional issues:**

- National definitions for forest and deforestation, consistent with national reporting
- Common definitions to ensure consistency
- Definitions of degradation need to be considered

#### **Forest Degradation:**

- Should also be considered as rates/ emissions could be significant
- May lead to deforestation but may not always be a precursor of deforestation
- Estimation and verification of degradation present many challenges. Technology and further methodological work needed for estimation of emissions







#### Policy approaches and positive incentives

- PNG-Costa Rica, Congo Basin countries and Brazil
  presented proposals on policy approaches and positive
  incentives in Rome. Up-dated proposals in Cairns
- India, Tuvalu and a group of Latin American countries presented new proposals on policy approaches and positive incentives
- Some of the proposed approaches and positive incentives are linked to a future international regime.
   Others could be implemented independent of any such future regime
- Vanuatu, USA and Australia presented on-going efforts/ projects







#### **Proposals by Parties. Summary**

- A mechanism, under the Convention, to compensate voluntary actions to reduce deforestation in developing countries through voluntary contributions by Annex II Parties. Financial incentives new and additional from those provided for other activities (Brazil)
- A REDD Mechanism to provide positive incentives to support voluntary policy approaches that result in gross reductions in GHG emissions from deforestation.

Positive incentives: either non-market (e.g. ODA) and/or market-based options

(countries of the Rainforest Coalition)







#### **Proposals by Parties. Summary**

A Forest Retention Incentive Scheme under the Convention.

3 key elements: (i) Community Forest Retention Trust Accounts, (ii) Forest Retention Certificates, and (iii)International Forest Retention Fund

Community draw on CFRT Account to establish measures to reduce emissions from deforestation and degradation

Funds from: Special Climate Change Fund, ODA, government contributions, corporate donations, NGO contributions (*Tuvalu*)

 Avoided Deforestation Carbon Fund (ACDF) provides resources for specific activities that directly reduce emissions from deforestation and activities that maintain forest cover/ avoid C stock losses

Voluntary contributions. Possibility for inclusion in CDM. (several Latin American countries)







#### **Proposals by Parties. Summary**

- Stabilization Fund for developing countries that seek to maintain existing forest areas (low rates of deforestation) in national basis. Based on actions to implement sustainable forest management (Congo Basin countries, countries of the Rainforest Coalition)
- REDD Enabling Fund special purpose fund for preparing and supporting developing countries to participate in REDD Mechanism/ Stabilization Fund.
  - Capacity building and pilot activities (countries of Rainforest Coalition, Congo Basin countries, some Latin American Countries)
- Compensated Conservation mechanism to compensate countries for conserving and increasing/ improving forest cover
   New and additional financial resources under Convention. Operate outside CDM (*India*)







#### Views on financing options

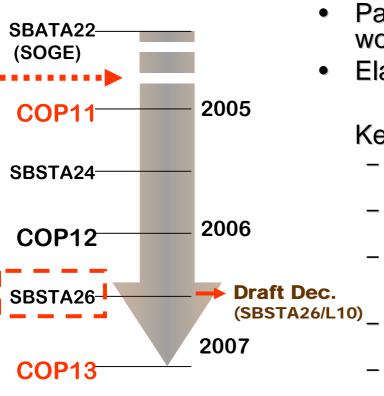
- Funding should be provided for demonstrable emission reductions from reduced deforestation
- Funding need it for capacity building and technology transfer, pilot activities
- In general, non-market financial resources accepted. But funding will generally be limited
- Market-based approaches facilitate private sector participation, more likely to be long-term and sustainable.
- Non-market based approaches do not devalue price of existing C credits
- New supply of credits must be met by new demand (created by deeper reduction commitment by Annex I Parties)
- Any funding mechanism should ensure permanence







## Outcome at SBSTA 26 (Bonn, May 2007)



- Parties considered the outcome of the two workshops (Rome and Cairns)
- Elaborated a draft text for a COP 13 decision

#### Key elements being considered in draft text:

- strengthened support for capacity building and pilot activities
- mobilization of resources for implementation of these activities
- calling upon relevant organizations to participate/ support these activities and share outcomes with process
- basis for SBSTA to undertake further, more specific, technical and methodological work
- a mandate for discussing a range of policy approaches and positive incentives in the context of any discussions on future international cooperation on climate change







#### **Outcome at SBSTA 26**

- Whether the mandate by the COP is

   (a) limited to a range of actions and efforts to "reduce emissions from deforestation", or
   (b) should be broaden to include actions that "stabilize and conserve" forest carbon stocks
- Who should mobilize "resources" to support capacity building and efforts (particularly by Annex II Parties or an effort involving all Parties)
- Specifics of further methodological work on range of actions relating to RED undertaken by SBSTA beyond Bali
  - Work to include issues associated with national and/or sub-national reference emissions levels;
  - Work on proposal of solutions on efforts to assess the effectiveness of action

(India, the African states, supported by countries of the Rainforest Coalition, would like to see the mandate broadened to include conservation of forests);

(Non-Annex I Parties are of the view that it should be an effort taken on by <u>Annex II Parties</u>, while a number of Annex I Parties are of the view that mobilization of resources also include <u>south to south co-operation</u> and not limited to financial support);







#### SBSTA 27/ Expected Outcome

- Parties to continue work on basis of draft text
- SBSTA expected to complete work solving main areas of disagreement
- Mandate to discuss range of policy options and positive incentives in context of any discussions on future international cooperation on climate change
  - SBSTA27 to elaborate on paragraph
  - Submission of views by Parties in issues relating to further steps provide insights (FCCC/SBSTA/2007/MISC.14)
- COP13 to adopt decision on REDD, fulfilling mandate of COP11





#### **SUMMARY**

- ✓Atmospheric stabilization requires REDD
- √While there was much resistance during 1st CP Kyoto
  Protocol negotiations, this has changed
- ✓ Methodological issues appear to be manageable
- ✓Bottom-up, flexible, voluntary approach may lead to broad participation
- √Whether or not linked to carbon markets remains to be seen
- √Capacity building and early action are critical

