

Reducing Emissions from Deforestation in Developing Countries

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Forest and Climate Change

- Carbon cycle - an integral part of the climate system
- Forest very much linked to climate system
- By sequestering and storing carbon, forests stabilize the climate - a sink - (CDM)
- If Forest is removed (deforested) and burnt - it emits GHG gas > becomes a source - (REDD)
- By keeping Forests - we provide valuable services to everyone in the world - rich and poor
- At the prices of the EU's Emission Trading Scheme these services are worth about \$100 billion annually

Introduction to REDD

- ❑ Reducing Emissions from Deforestation in Developing Countries (REDD), also known as “avoided deforestation”, is emerging as an innovative idea, sparking interest around the world.
- ❑ Refers to the prevention or reduction of forest loss in order to reduce emissions of global warming gases.
- ❑ Now also include degradation
- ❑ Land use change, especially forest loss in the tropics, is believed to contribute between 18 and 20% of all annual emissions of carbon dioxide (CO₂) >
 - so there is a growing international push to seek a reduction in deforestation as a means of combating climate change.



**Rate of Deforestation
Worldwide is alarming**



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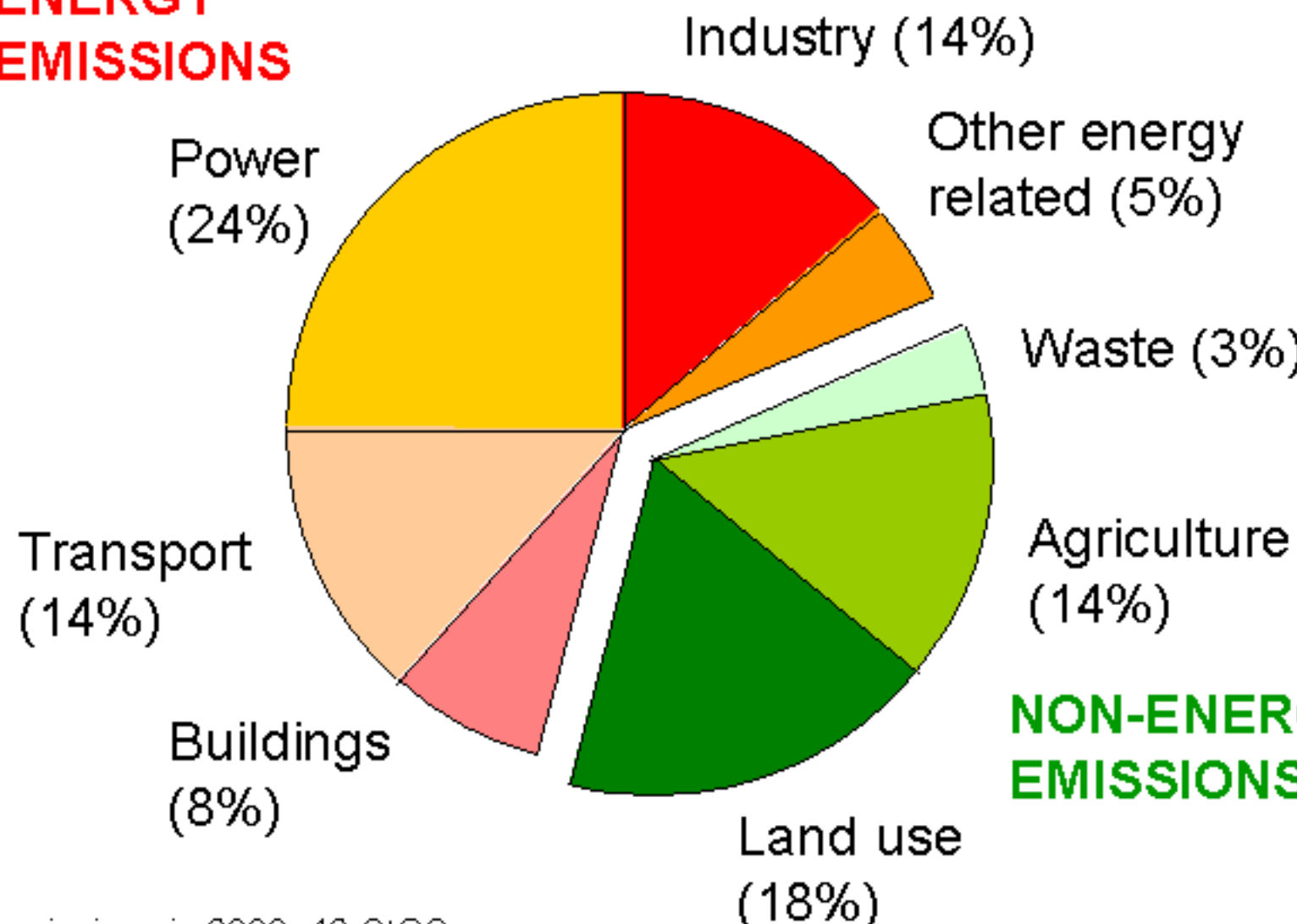
Occurs mainly in Developing Tropical Countries



Stern Review

- **The Stern Review of the Economics of Climate Change reported that**
 - curbing deforestation is a highly cost-effective means of reducing greenhouse gas emissions
 - suggested carbon markets could eventually play an important role in conserving forests.
 - estimated \$US 5 billion annually is needed to cover the opportunity costs of forest protection.
- **The issue of payments for REDD is becoming a pivotal component of the broader post-2012 negotiations under the UNFCCC**

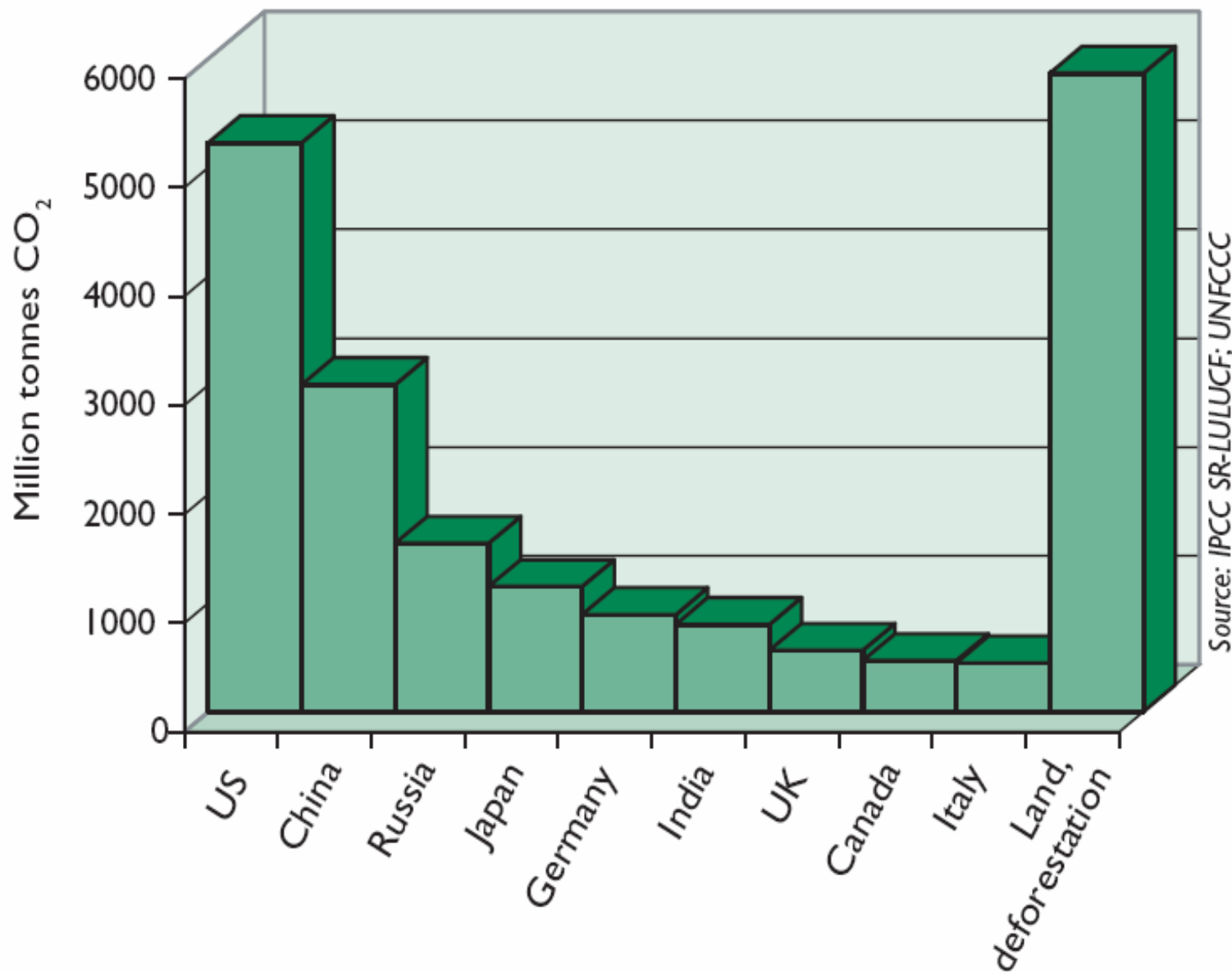
**ENERGY
EMISSIONS**



**NON-ENERGY
EMISSIONS**

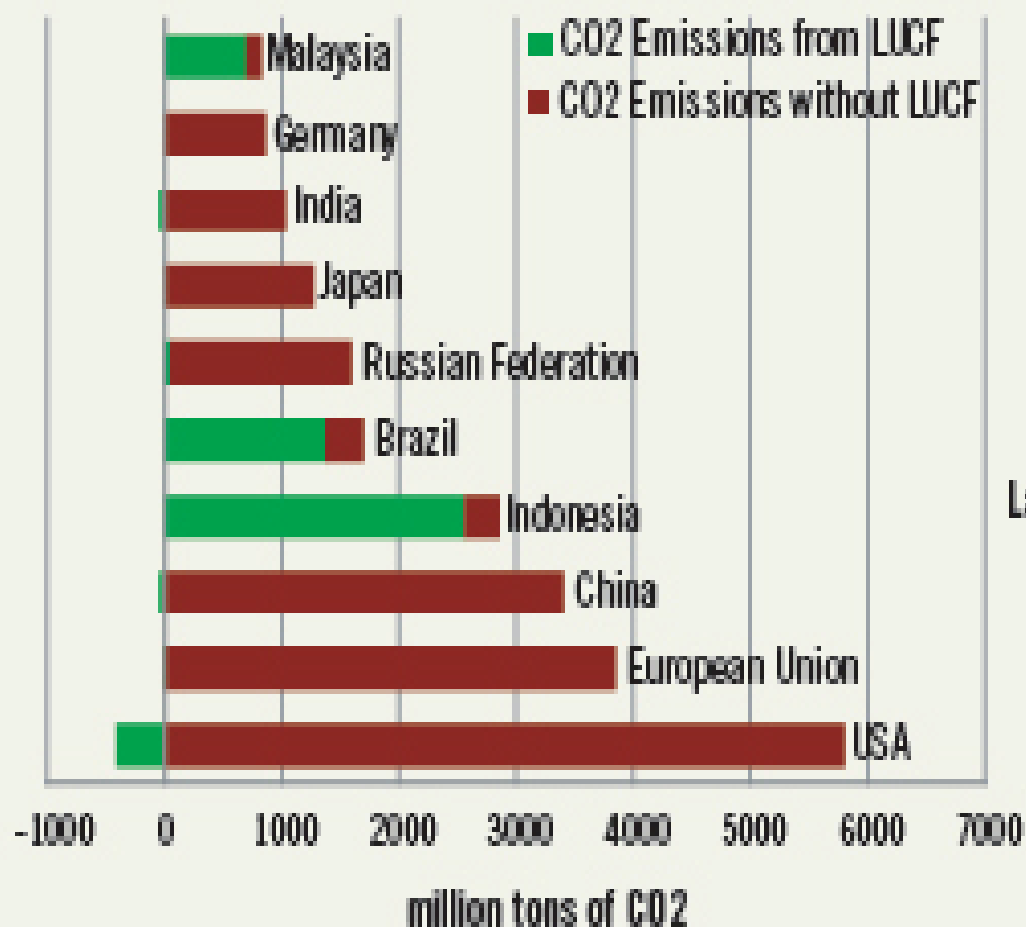
Total emissions in 2000: 42 GtCO₂e.

Comparison of mean annual deforestation emissions (1989–95) with fossil fuel emissions from selected countries (1995)

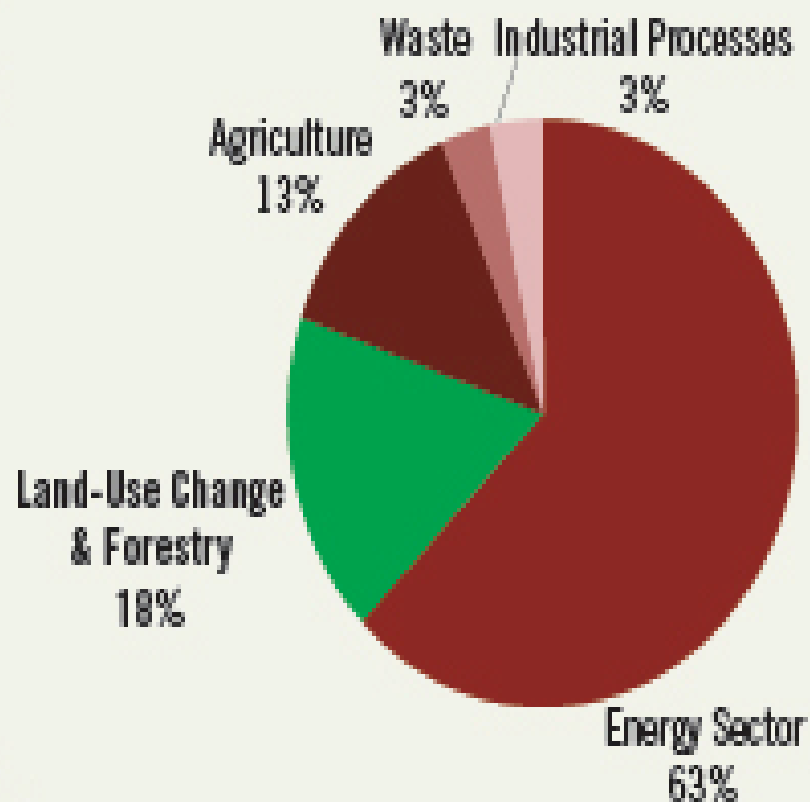


Emissions from Land Use Change & Forestry (LUCF), 2000

CO2 Emissions of Top 10 Emitting Countries

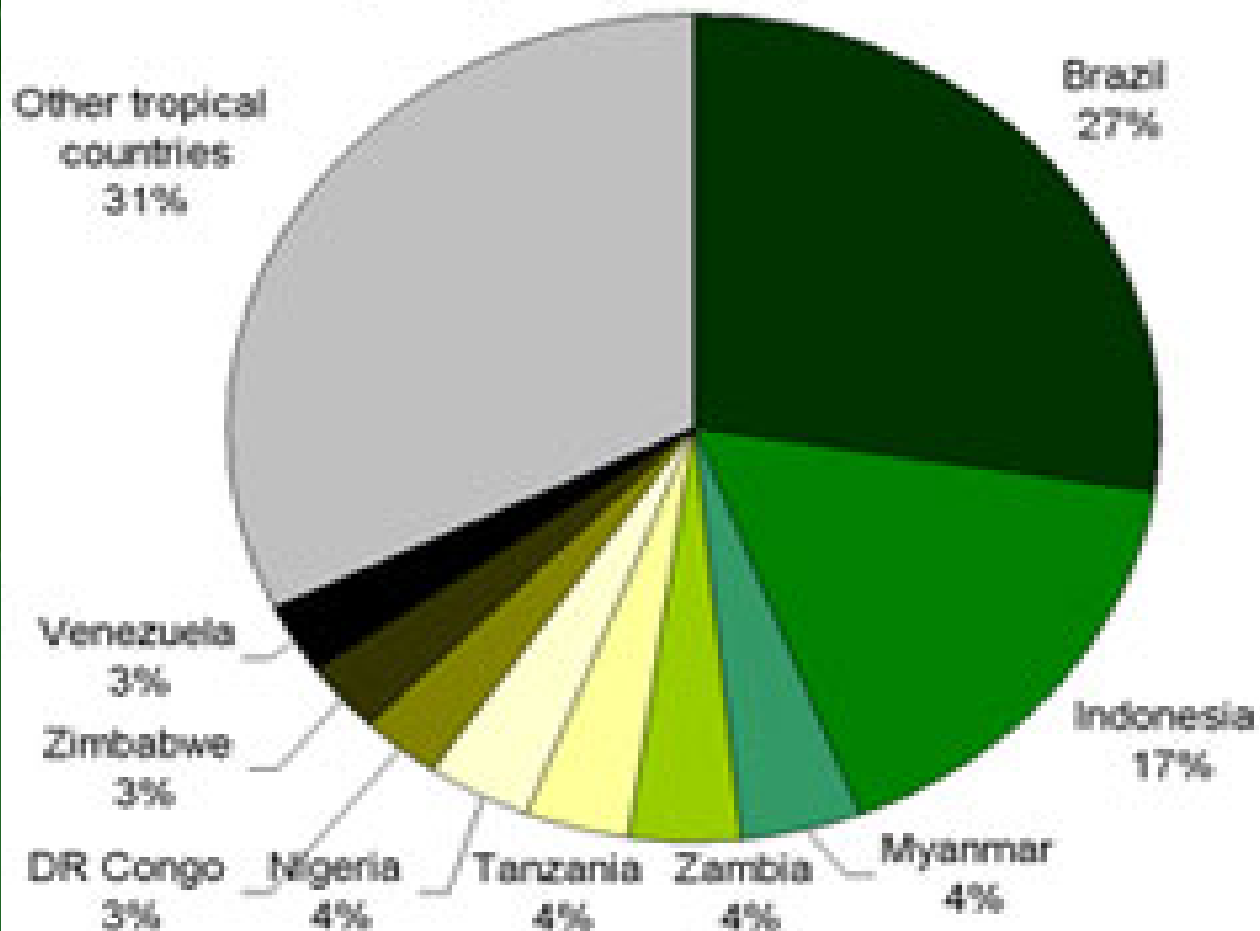


Greenhouse Gas Emissions by Sector

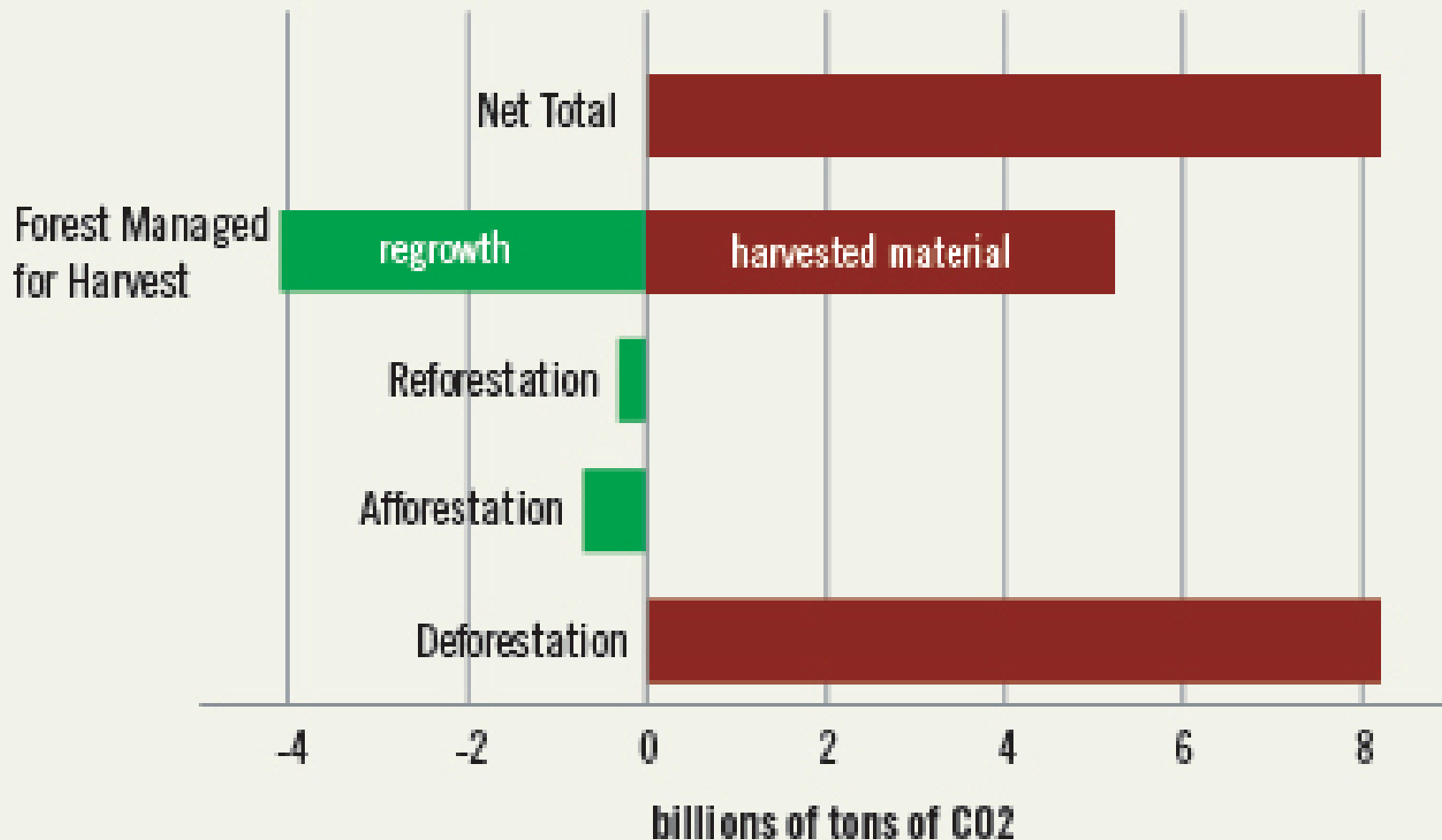


Share of tropical deforestation, 2000-2005

mongabay.com, using FAO data



Emissions / Absorptions of CO₂ from Select Forestry Activities



Source : Earth Trends 2008 using data from FAO

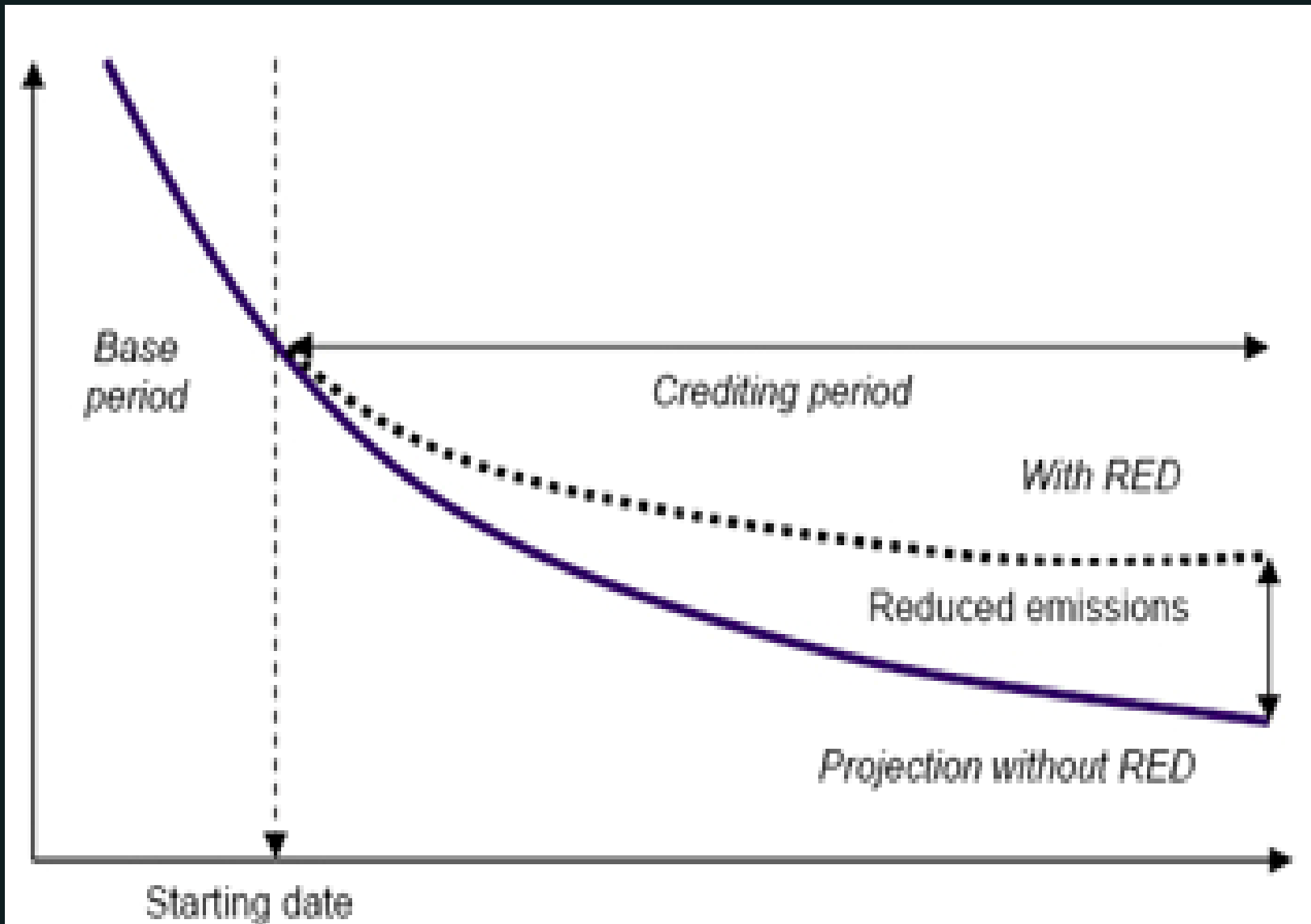
Underlying Principle

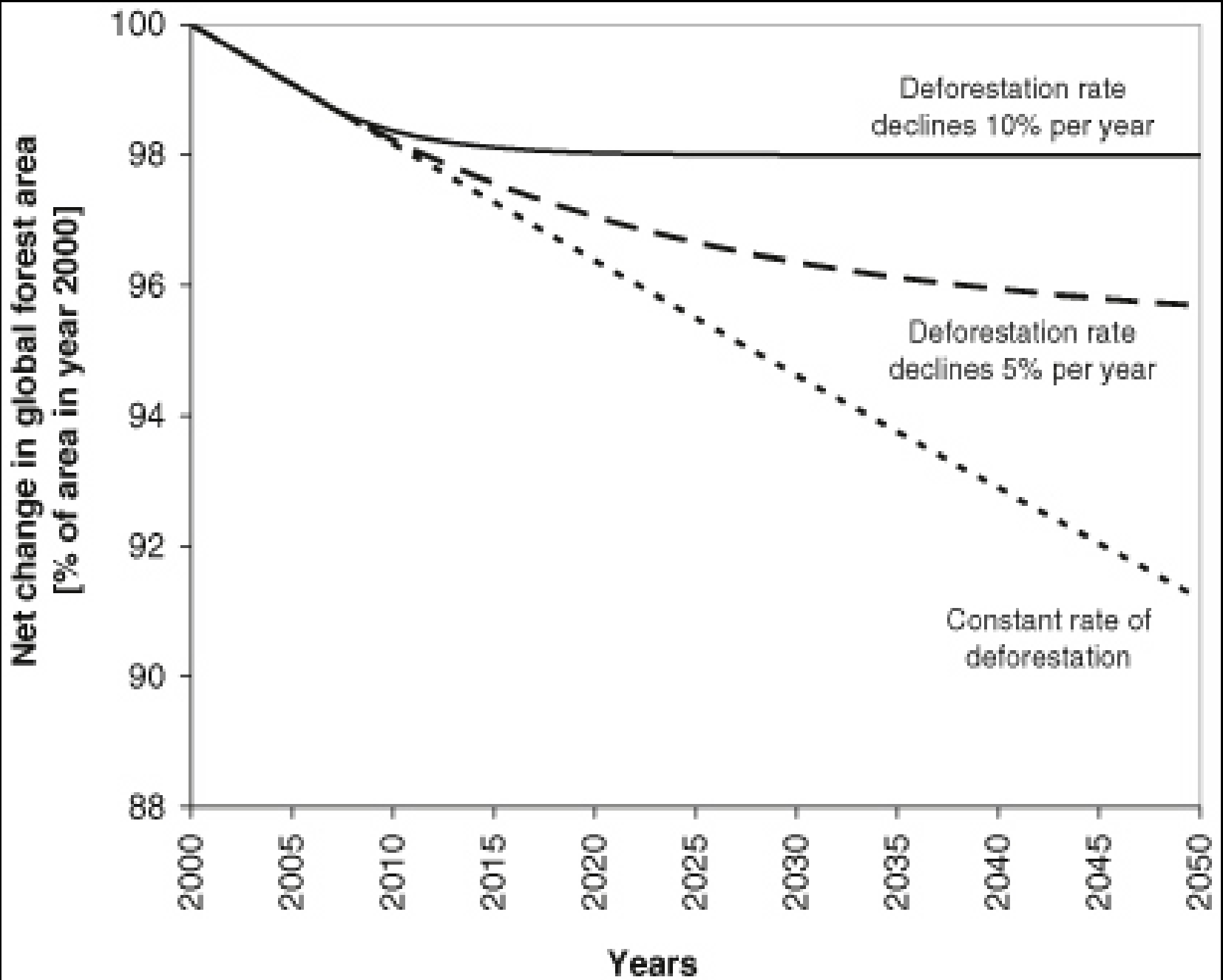
- Forests provide valuable services to everyone in the world - rich and poor
 - Store and sequester carbon
 - Conserve the diversity of life
 - Protect soil and water resources
 - Source of useful drug and food
- This is a subsidy from forested to non-forested countries
- Most of these protective roles are difficult to place a dollar value- but carbon management can be valued

Emergence on REDD

- Principle - treat deforestation like any other carbon source and give credit for reducing it
- This was Agenda Item 6 at the Montreal meeting of the COP and MOP in 05
- 11th COP (Montreal) agrees two yearwork programme
- Dec 2007 13th COP (Bali) Decision on REDD.
- Principle accepted - now negotiations focus on being more precise about the methodological and policy issues

Approach to Providing incentives for REDD





Current Provisions

- Kyoto Protocol recognizes these services but does not allow developing countries to be rewarded for most of them
- CDM only provides incentives for new and additional forests (A&R)
- The aim of this effort on REDD is to change this – to allow developing countries to receive some payments for the value their forests provide
- A simple, important idea

Land Use & Carbon Prices

- Paying for reduced emissions from deforestation (RED) amounts to payment for storing carbon
- Consensus is that realistic payments could make conservation the most profitable forest use
 - For as little as \$12/ton C (\$3.2/ton CO₂) some lands in Amazonia, Africa would be conserved
 - For \$100/ton C (\$27/ton CO₂) a significant fraction of deforestation would end
 - For \$200/ton C (\$54/ton CO₂) most deforestation would end

Proposals for avoided deforestation

- ✓ MARKET-BASED APPROACHES
- ✓ PUBLIC FUNDING APPROACHES

Market-based approaches

- linking schemes to reduce deforestation to a global carbon trading system.
- Most conservation NGOs and carbon finance businesses support > forested countries get carbon emission reduction credits for not removing their forests.
- Credits can then be sold on the international carbon market to countries with carbon-emitting industries which need the credits to continue operating.
- Some views as ethically problematic > countries/ companies can buy the rights to continue polluting the planet's atmosphere.

Proposals for avoided deforestation

- Public funding approaches

- using aid from rich countries to pay forest-rich developing countries to reduce forest clearance.
- Aid is collected through voluntary contributions from industrialised countries or through taxes.
- Whether the payments are annual or at other regular intervals and whether they are 'up front' or 'on delivery' is still a matter for negotiation

Suggested menu of voluntary incentives

- REDD Mechanism
 - Incentive based on gross reduction in GHG emissions from deforestation and degradation measured against a baseline
- REDD Stabilisation Fund
 - Support countries with low and stable deforestation rates
 - Based on a levy on REDD units
 - New & additional funds
- REDD Enabling Fund
 - New & additional funds for capacity building

What has emerged from Bali

- REDD was a major topic for COP 13 – much discussions held – no decisions yet (COP 15).
- No formal position yet from G77 & China > not likely?
- Forest degradation, sustainable forest management and conservation is included in the draft text
- Methodological issues related policy approaches & incentives still to be discussed after views from parties is sought
- Forest conservation still a difficult issue > enhancement of C stocks through SFM more acceptable
- Current push for biofuels and agriculture may increase opportunity costs for conservation

Major Issues Facing REDD

- **Project Based or National based**
 - national > flexible, easy monitoring, no leakage
 - Project > accommodate some countries, national leakage, and monitoring costly
- **Monitoring – via satellite, precisions**
 - need to have agreed definitions, methods
 - Degradation more difficult
- **Leakage – national & international**
 - high for project based project
 - Participating & non-participating countries

Major Issues Facing REDD

- ❖ **Baselines - how to set acceptable standards**
 - Need to be fair and encourage broad participation
 - What are the historical rates
 - Compensating countries with low or stabilised rates
- ❖ **Permanence – is reduced emissions permanent**
 - Can be undone by deforestations or fires
 - Lack of confidence with countries which are unstable and had poor governance
 - Crediting period and payment systems

REDD is “Hot”

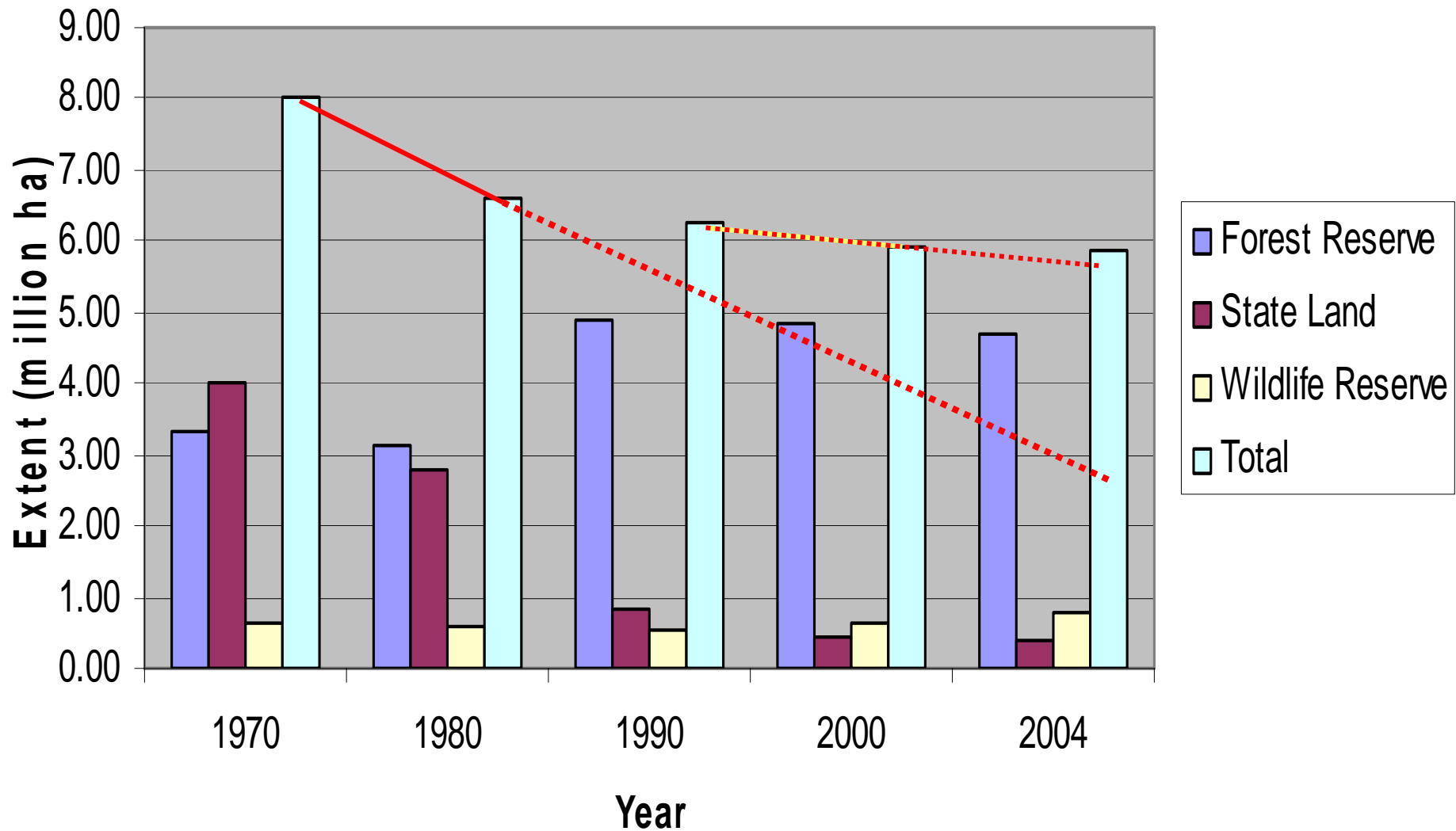
- Politically charged as gains are potentially high
- Baselines – could reward countries with poor performance > perverse
- An excuse for Annex 1 countries not to reduce at home
- Permanance – forestry emissions are always more problematic – that’s why its not included in EU ETS
- M & E complex with different level of capacity in different countries

Outlook in REDD for Malaysia

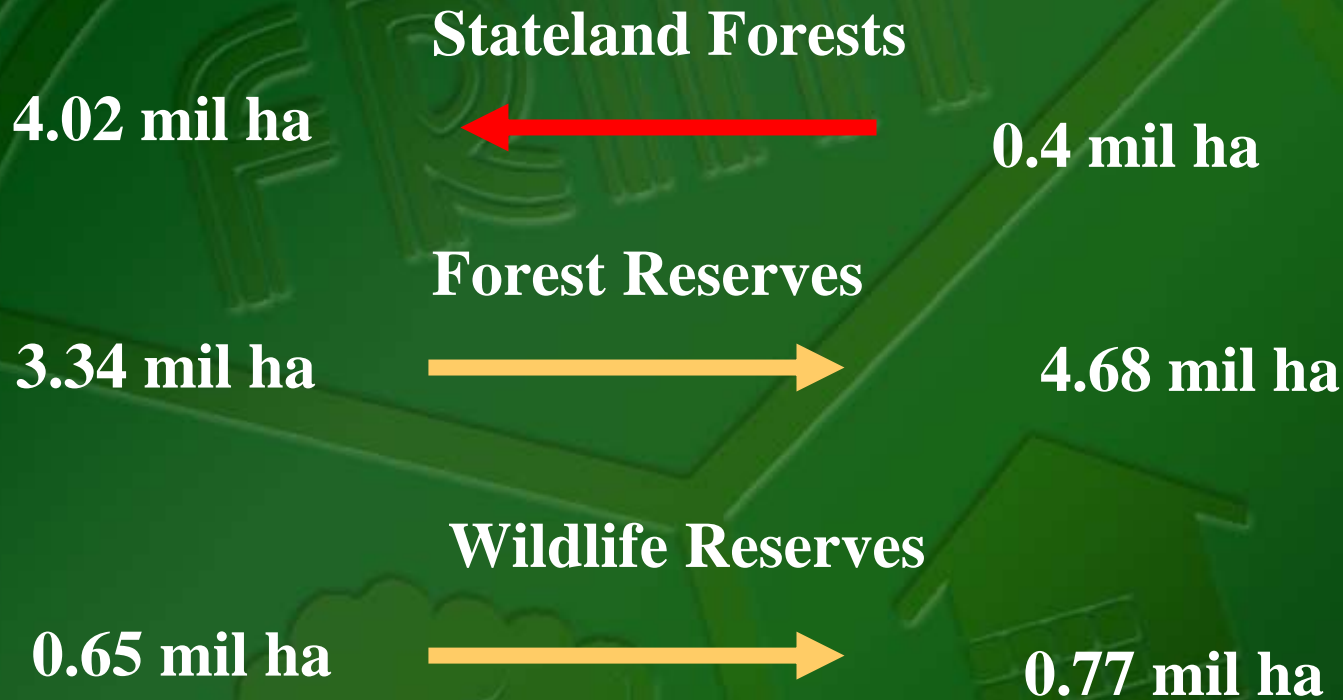
FORESTRY in MALAYSIA

- We have large areas of natural forest - Almost 60% of land area (19.5 mil ha)
- Large extent protected - 16.5 mil ha
- Our deforestation rates low and stable - confined mainly to statelands
- We practice SFM
- We have taken early action and invested in good forestry
- This is good but like A&R CDM it may not put us in a position of advantage for claiming incentives under REDD

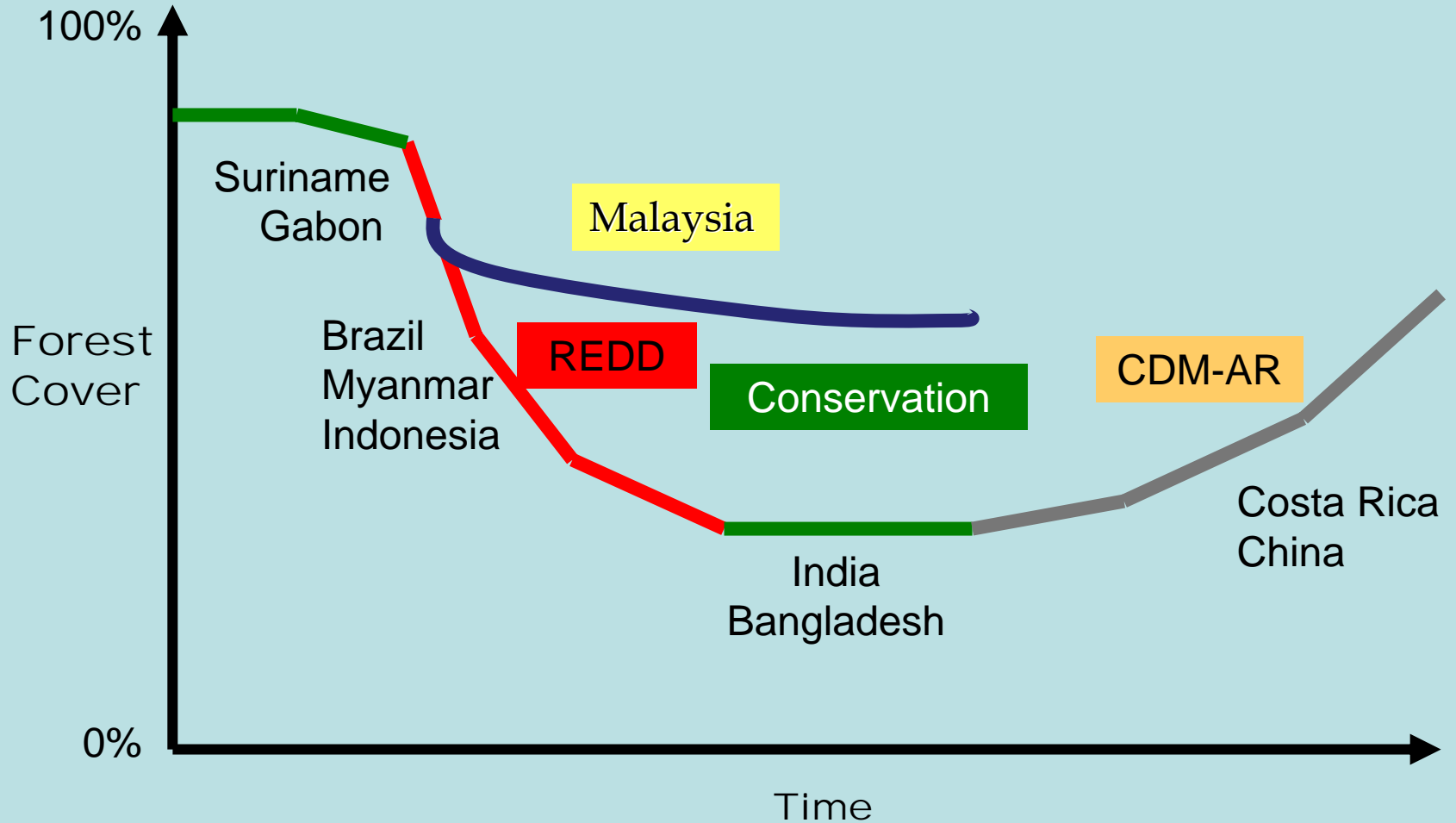
Changes in Forested Area (Pen. M'sia)



Changes in Forest Extent 1970 to 2004 (Pen. Malaysia)



Forest Cover Trends



Malaysia's Concerns

- ❖ Mechanism should not be disadvantageous to countries like Malaysia with large forest areas and low deforestation rates
- ❖ We need to address methodologies including baselines, inclusion of forest conservation and SFM, as currently it seem to be against us
- ❖ Developing countries should have broad set of policy options to encourage maximum participation including market and non-market instruments
- ❖ Annex 1 countries should support positive incentives for increasing capacity to monitor, measure and verify emissions reduction under REDD

Malaysia's Involvement in REDD

- Malaysia has been following the negotiations on REDD at the SBSTA, attended workshops/meetings
- Malaysia had been involved in Discussions with the Coalition of Rainforest Nations through their sponsorship
- Malaysia had submitted views to the UNFCCC twice on REDD
- Malaysia supports REDD in principle as there are real benefits for forest conservation and good forest management

Malaysia Interests in REDD

Baseline emissions

- ❑ a national emissions reference level should be based on historical emissions from deforestation and should take into account national circumstances;
- ❑ baselines could be decided as far back as possible if data is available and verifiable. This is because our rates were high in the 1970's but low in 2000 onwards
- ❑ IPCC Guidelines can be used for assessing forest cover changes and carbon stocks
- ❑ Reference level should not extend beyond 2005
- ❑ Based on national circumstances a country can determine an appropriate Development Adjustment Factor (DAF) in the context of assessing reference emission levels
- ❑ Principle of conservativeness applied to address uncertainties and enhance value of credits

Malaysia Interests in REDD

Reporting and Implementation

- ❑ A national accounting, reporting and assessment system should be established > ensure a measurable, reportable and verifiable mitigation action through REDD
- ❑ For this a strong support for capacity building, technology transfer and financial resources is needed
- ❑ Malaysia should favour national level accounting but would not exclude sub-national projects
- ❑ Using existing precedent and to minimize implementation costs, a national inventory report, in this case related only to forest sector, could be submitted to the Secretariat and be reviewed by two members of the UNFCCC roster of experts.

Malaysia Interests in REDD

Displacement (Leakage)

- National based project is preferred as it will overcome local leakage issues
- International leakage not effectively addressed and thus should not be applied to REDD

Permanence

- This issues apply to both Annex 1 and developing countries as Annex 1 parties may also opt out. If rules apply to future agreements than permanence is not a problem
- Should not apply unilaterally to REDD or developing countries

Implication to Current Forest Management

- Need good estimates of C stocks (various pools) in managed and protected forests
- Improve systems for estimating and monitoring deforestation and changes in C stocks > combining remote sensing assessments and ground measurements (NFI's)
- Refer to IPCC Guidelines on methodologies as guides
- Forest degradation is more difficult than deforestation, >knowing the causes of degradation can help in estimating of associated losses of carbon
- Capacity building required at different levels
- Get involved in Pilot Projects - learning by doing

Some of the Players

- Most developing countries support REDD
- Seems that G77 & China may not have a consensus on the issue ?
- Brazil is cautious of including conservation and for SFM require improvement in C stocks
- Small island nations not interested in REDD
- EU for now supports capacity building
- China ? > Neutral for now?
- Gabon, Congo Basin, India > support forest conservation and sustainable management of forest
- Coalition of Rainforest Nations - major player in the REDD discussions

Funding - Capacity

- The World Bank has become a lead player in proposals to finance schemes that seek to reduce emissions from deforestation.
- At the G8 meeting in Germany in June, it secured high-level political backing for a new 'Forest Carbon Partnership Facility' (FCPF) that will 'test the feasibility' of different approaches to funding RED/REDD.
- The Bank promotes a mixed approach (market-based and public funding), but favours carbon trading.

- Build the capacity of countries to access a future system of incentives
 - Reference scenario
 - Emission reduction strategy
 - Monitoring system
- Target: \$100 million
- Pilot carbon finance transactions for “ready” countries before post-2012 regime
- Malaysia is interested in participating > an R-Pin has been drafted for submission to World Bank

SOME IMPORTANT MEETINGS FOR REDD

- ❖ SBSTA 28 Bonn 2-13 June 2008
- ❖ Workshop on methodological issues relating to reducing emissions from deforestation and forest degradation in developing countries Tokyo, Japan 25-27 June 2008 (UNFCCC)
- ❖ Climate Change Talks, in Accra, Ghana - 21-27 Aug. 2008
- ❖ COP 14 Dec. 2008 Poznan, Poland
- ❖ COP 15 Dec 2009, Copenhagen

Conclusion

- Malaysia will continue to participate in the REDD negotiations
- Look forward to developing a Mechanism that is attractive and allows broad participation
- Hope Annex 1 Parties will agree to deeper cuts > create the demand for REDD credits
- Can expect negotiations to be difficult > usual for Forestry issues
- Avoid taking the CDM path
- Other Forestry issues are also being discussed for post 2012 agreements

Thank you
Terima Kasih

