

Financing Forests for Climate Change Mitigation and Adaptation

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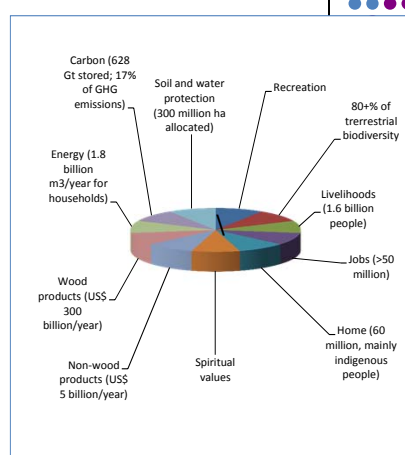
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1. Value of forests

- Critical for human survival and well-being

- Ecosystem services provided by forests:

- *Supporting services* – soil production and nutrient cycling;
- *Provisioning services* – timber and non-timber products;
- *Regulating services* – climate and hydrological regulation;
- *Cultural services* – cultural, religious, recreational and scientific values.



Source: UNFF, 2009
(<http://www.slideshare.net/CIFOR/the-un-forum-on-forests-facilitating-and-catalyzing-sfm-financing>)

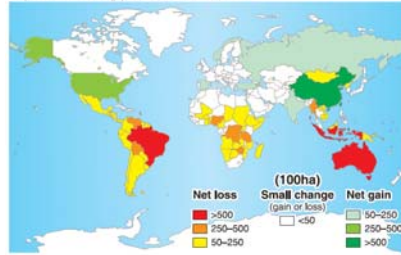
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2. Global forest cover change



- Almost half of Earth's original forest cover gone, much of it destroyed within past three decades (WRI 1997)
- Globally, on average 13 million hectares of forest were converted to other uses – mostly agriculture – or lost through natural events each year from 2000 to 2010 (FRA 2010).

Annual change in forest area by country, 2005–2010



Source: Forest Resources Assessment 2010



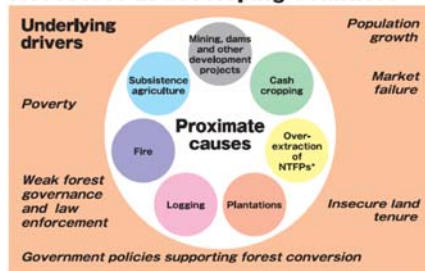
Ten countries with largest annual net loss of forest area 2000–2010 (FRA 2010)

Country	Annual Change	
	(1,000 ha/yr)	%
Brazil	-2,642	-0.49
Australia	-562	-0.37
Indonesia	-498	-0.51
Nigeria	-410	-3.67
United Rep. of Tanzania	-403	-1.13
Zimbabwe	-327	-1.88
Dem. Rep. of the Congo	-311	-0.20
Myanmar	-310	-0.93
Bolivia	-290	-0.49
Venezuela	-288	-0.60

3. Threats to forests



Proximate & underlying causes of forest loss in developing countries

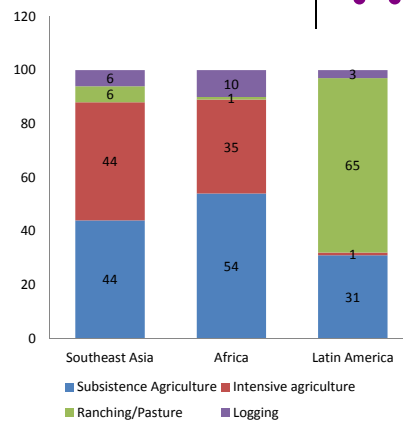


Note: *non-timber forest products

In Asia Pacific, only 15% of production forest and 7.2% of protection forests sustainably managed (ITTO 2006)



Regional variations in deforestation drivers



Source: Project Catalyst data analyzed by Rhett Butler; mongabay.com, 2009

4. Situation in Bangladesh



- *Relatively low forest cover and quality, and conditions declining further*

- Forest cover depleted from 10% to 6% of total land cover (National Biodiversity Strategy and Action plan for Bangladesh, 2006); Annual forest loss “alarming”; ~ 0.015 million hectares (FAO 2011)
- In the Sundarbans, growing stock decreased by 51% between 1959 and 1996; roughly 1% / yr.
- Many good coastal mangrove plantations in Chittagong and Noakhali lost to shrimp farms
- Etc.

(FAO 2011)



- *Forest and trees important for their wide range of ecosystems services, and especially to households*

- About 40% of homestead area under tree cover; fruit trees mostly planted, but some forest trees on larger holdings; major supplier of wood, especially fuel wood
- Non-wood forest products (Bamboo, Fish, Golpatta, etc.) make significant contribution to supporting economic activities (0.6 million (mostly poor) people from the FD forests) (FAO 2011).

Table 14. Estimates of energy supplied by traditional fuels
(*000 tons of coal equivalent)

Year	Cow Dung	Firewood	Other	Total
1995	2018	1113	7656	10787
1996	2008	1166	7616	10790
1997	2005	1219	7834	11058
1998	2046	1166	7907	11119
1999	2156	1113	7665	10934
2000	2441	1166	7932	11539
2001	2471	1166	8153	11790
2002	2471	1219	8343	12033
2003	2471	1219	8449	12139
2004	2502	1272	8547	12321

Source: Year Book of Statistics 2004, Government of Bangladesh



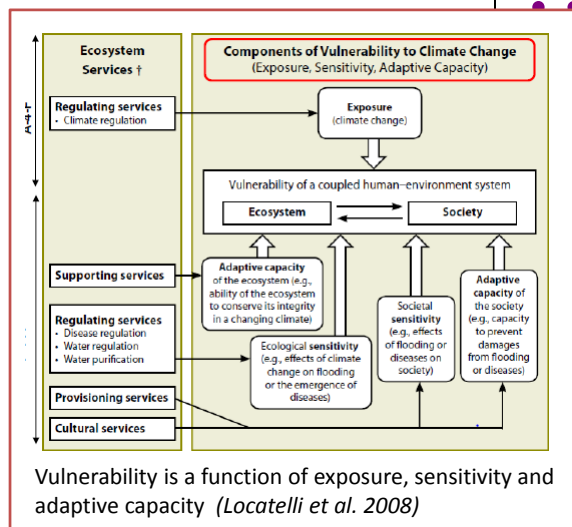
● *Drivers of forest change in Bangladesh*

- Policy focus on “production oriented forestry” with few benefits for local people (now moving towards “people oriented forestry”)
- Under-resourcing and weak institutions within Forestry Department
 - 80% of funding now project based. Example of consequence: Planted forests mostly established by projects; start of well but after 15-20 years resemble “scattered trees”
- Loss of managerial efficiency and corruption of FD managers associated with insufficient incentives
- Conflicts, contradictions and confusions due to overlapping sectoral policies (FAO 2011)



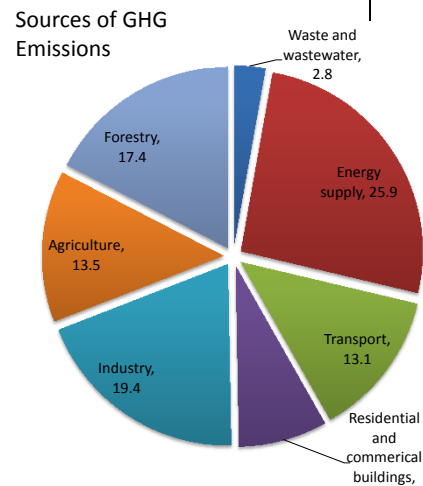
5. Why forests need to be better managed for climate change adaptation

- Forest ecosystems services contribute to resilience and adaptive capacity:
 - Provide safety nets during crisis
 - Potential to mitigate disasters
 - Provide options for alternative livelihoods



6. Why forests need to be better managed for climate change mitigation

- Deforestation is responsible for as much as 20% of anthropogenic GHG emissions
- Cannot keep climate change below dangerous levels without tackling deforestation (Eliasch 2008)



Source: IPCC, 2007

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7. Where is the finance for adaptation in the forest sector?

- Various sources, such as the Adaptation Fund (2% levy on CDM), and bilateral and multilateral funding, **but funding focus is clearly on mitigation.**
- Example: Green Climate Fund
 - Formally established during the 2010 United Nations Climate Change Conference in Cancun
 - Aims to raise \$100 billion a year by 2020 for adaptation and mitigation
 - Aims for 'a balanced allocation between adaptation and mitigation' and prioritises 'funding for adaptation . . . for the most vulnerable developing countries'
 - **But only ~ 14% of pledged funds are for adaptation activities** (Bloomberg New Energy Finance 2011)

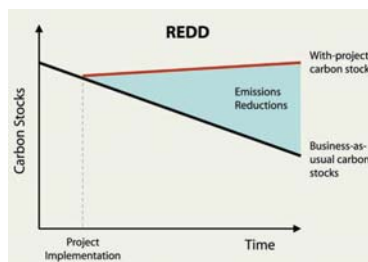
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8. Where is the finance for mitigation in the forest sector?



● REDD+

- The basic concept of REDD+ is that developed countries will pay developing countries for efforts to reduce emissions from deforestation and forest degradation, as well as efforts to increase carbon stocks in existing forests.
- REDD+ provides financial incentives for measurable / verifiable reductions in GHG emission from deforestation & forest degradation and/or increases in GHG removals by standing forests



9. REDD+ financing under the UNFCCC

Financial support for REDD+ readiness and implementation



- REDD+ will be part of the post-2020 global framework to combat climate change.
- REDD+ must ultimately be implemented at the national level: ~40 countries now preparing their national REDD+ systems

Indicative Interim Financing from Bilateral Sources	
Australia	120,000,000
Denmark	16,500,000
France	330,000,000
Germany	503,000,000
Japan	500,000,000
Norway	1,000,000,000
Spain	27,100,000
UK	450,000,000
US	1,000,000,000
Received by developing countries	
Chad	4,500,000
Ecuador	6,000,000
Gabon	1,000,000
Indonesia	1,140,000,000
Lao PDR	1,200,000
Mexico	920,000,000
Nigeria	2,000,000
PNG	4,290,000
Multilateral initiatives	
Forest Carbon Partnership Facility	
Readiness Mechanism	12,955,000
UN -REDD Programme	55,904,673

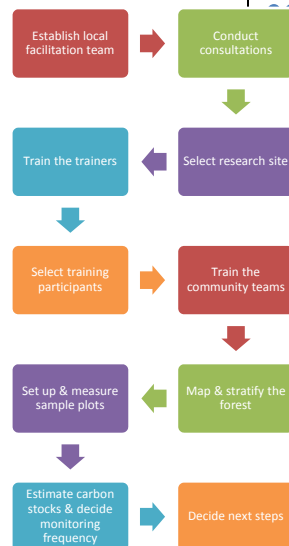
Source: Intergovernmental taskforce survey, REDD+ Partnership 2010



10. IGES Community Carbon Accounting (CCA) Project

- Project objective: Develop approaches to engage local communities in monitoring changes in carbon stocks in their forests
- Developmental objectives:
 - Local communities rewarded for protecting and enhancing carbon stocks in their forests
 - Continued provision of forest ecosystems services, which contribute to resilience and adaptive capacity
- Methodology: Action research

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Setting up sample plot, Cambodia



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Training community to estimate tree height, Vietnam

11. Main messages

- Forest management must contribute to local development, mitigation and adaptation
- Participatory REDD+ models that build on traditional knowledge and existing capacity and institutions, potentially provide a strong approach for achieving these multiple outcomes.



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