

Potential and opportunities for reduction of emissions by deforestation in Africa

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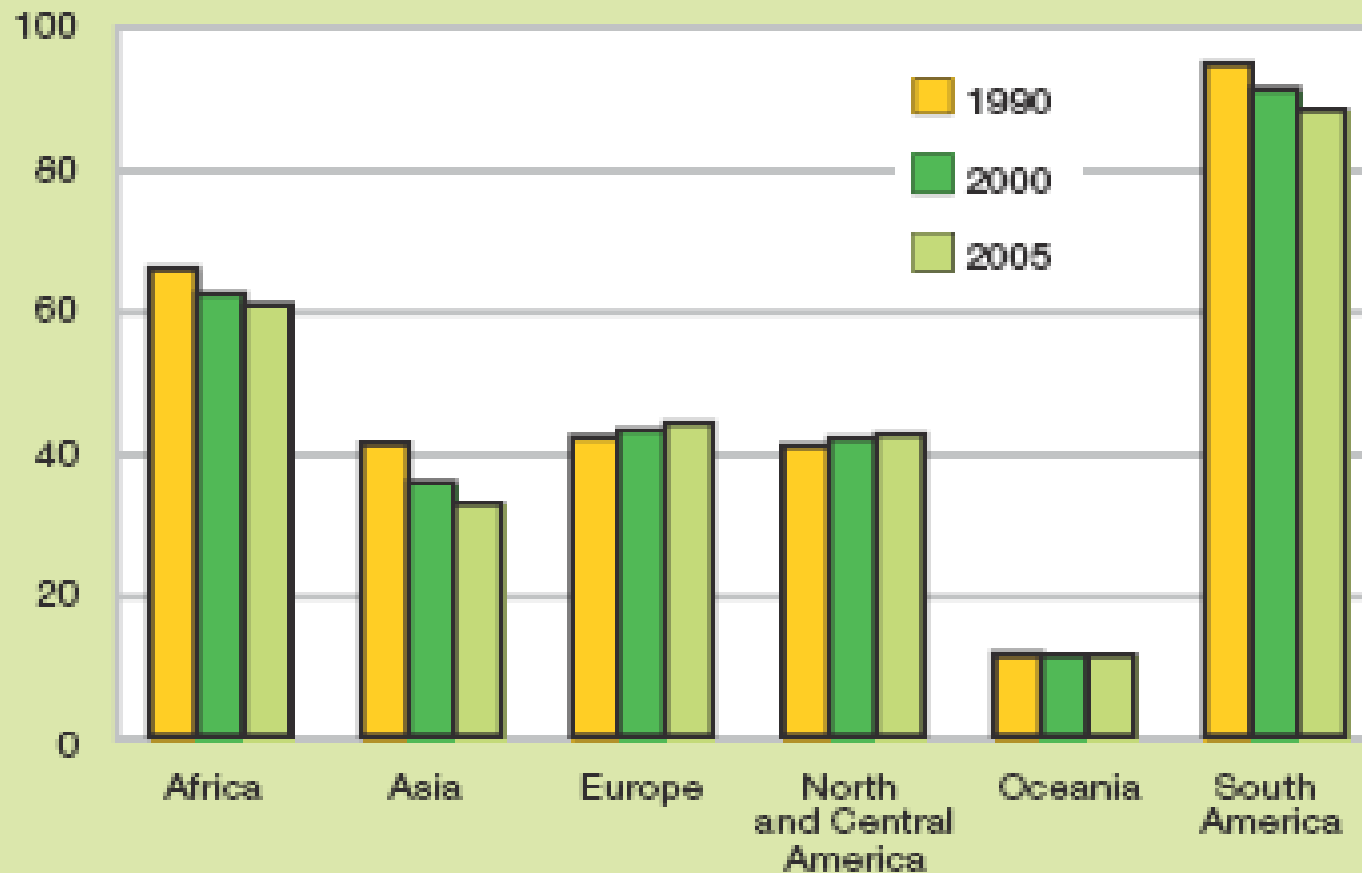
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Deforestation and climate change

- Accounts for 20% of global CO₂ emissions
- 25% of global GHG emissions
- Annual emissions: 1.6 ±0.8 Gt C
- Deforestation the largest source of emissions in developing countries

Relation of loss in carbon stock in Africa compared to other regions

Changes in carbon stocks in forest biomass, 1990–2005 (Gt)



Source:
FRA 2005,
FAO

Negative effects of deforestation on ecosystems and livelihoods

- Loss of biodiversity
- Disruption of hydrological regime
- Increase of temperatures in microclimate
- Decrease of food and livelihood security
- Loss of carbon in soils
- Shortfall in productivity of ecosystems

Magnitude of deforestation in Africa

Country	Net deforestation in thousand of hectares, per year, 1990-2005
Brazil	-2,821.93
Indonesia	-1,871.47
Sudan	-589.04
Democratic Republic of the Congo	-461.40
Zambia	-444.80
United Republic of Tanzania	-412.27
Nigeria	-409.67
Mexico	-318.53
Zimbabwe	-312.93
Cameroon	-220.00

Source: FAO

Potential income in Africa, per year, 1990-2005, in million €

@ 5 € per ton CO₂, 10% reduction of deforestation rate, selected countries

Country	Potential yearly income for carbon trading (million €)
Brazil	541.08
Democratic Republic of the Congo	95.17
Gabon	1.26
Mexico	15.79
Sudan	6.48

Source: Johannes Ebeling, unpublished MSc Thesis

Advantages for Africa to undertake REDDC

- Reduction of loss of biodiversity and unique ecosystems
- Potential to contribute to a more balanced regional distribution of projects
- If established together with SFM:
 - Increase of food security
 - Generation of income by CER
 - Possibility of inclusion of vulnerable communities
 - Building of social capacities on sustainable management of natural resources.

A methodology base for reward good behaviour

- Also countries with a lower rate of deforestation should be able to benefit for incentives to reduce deforestation
- If established through carbon markets, baselines should take into account:
 - Sociocultural variables that prevent deforestation, and imminent pressures over these variables
 - Mounting economic pressures over land use that might lead to deforestation in the near future
 - The changing relationship between marginal benefit of standing forest vs. alternative uses.