



Reducing Emissions from Deforestation in Developing Countries

15th Session of the UN CSD

UN Headquarters, New York

2 May 2007



Coalition for Rainforest Nations

Key Messages



- Deforestation: Reducing rates of deforestation is possible and urgently needed.
- Positive Incentives: Leading drivers are identifiable. In most cases, higher carbon 'incentives' will drive greater emissions reductions from deforestation.
- Sustainable Development: Catalyze gains toward climate stability, poverty reduction, biodiversity conservation, and rural development.
- Funding is Available: Principle of proportionality: policy dedicating 20% of emissions markets trades would provide revenues at necessary scale: \$5 - \$30 billion per year.

Deforestation Drivers

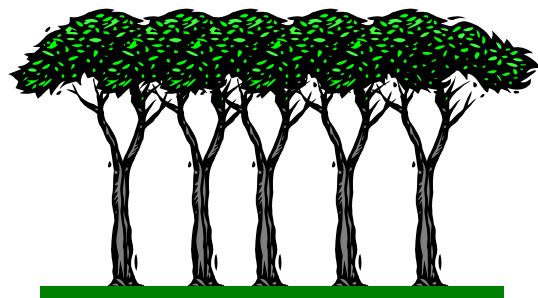


- Foods: Soya, Coffee, Cocoa, Sugar, Gardens, Ranching, etc.
- Logging: Low value exports, unsustainable practices.
- Development: Roads, Energy, Mining, Power-Lines, etc.
- Population: Urbanization + growth drives above.

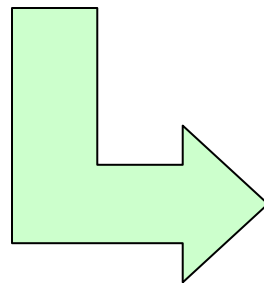
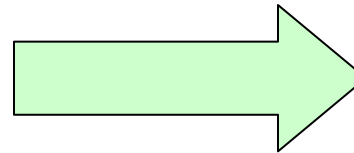
Perverse Incentives!



Land Use Change



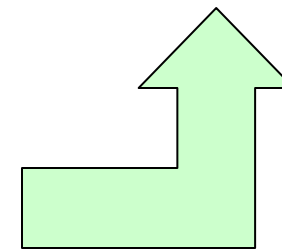
Deforestation



Degradation

~

Conversion

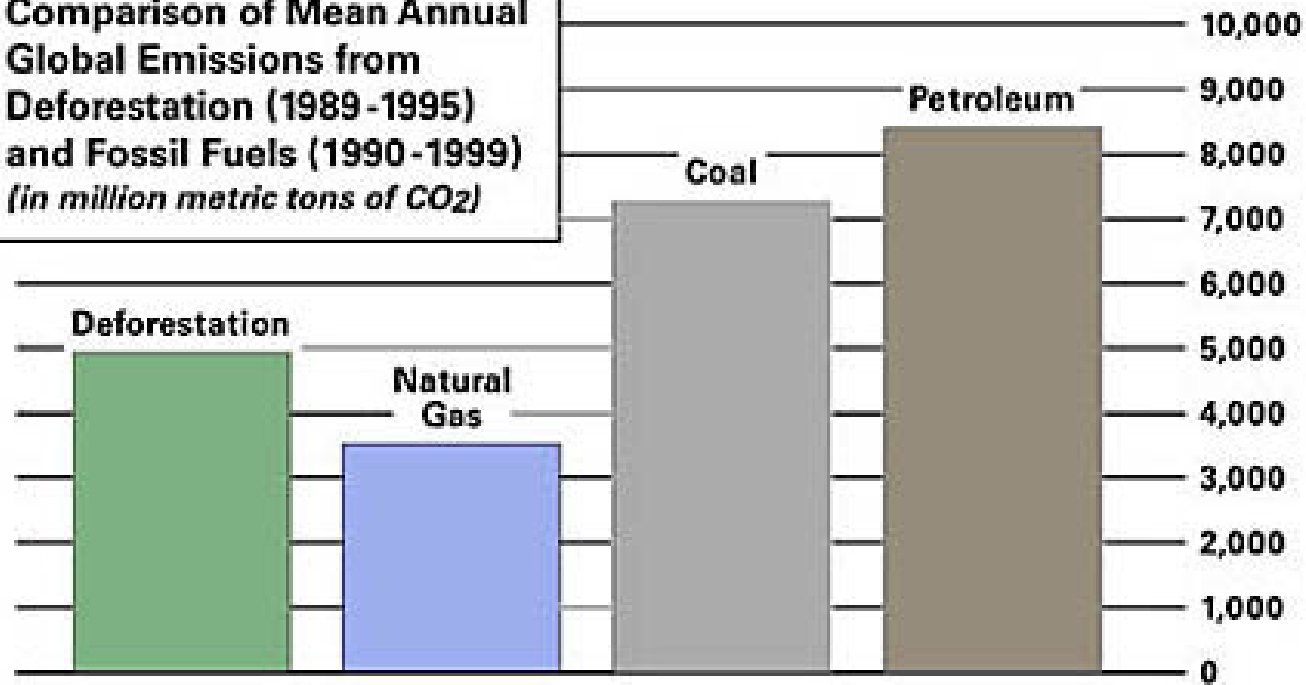


Deforestation

Emission Sources



Comparison of Mean Annual Global Emissions from Deforestation (1989-1995) and Fossil Fuels (1990-1999) (in million metric tons of CO₂)



Source: IPCC; US Department of Energy

Carbon vs. Econ. Growth



- Foods: Intensification + Productivity Gains
- Logging: Carbon-neutral sustainable logging
- Energy: Hydro-Electric Power, bio-fuels etc.
- Population: Urbanization + Intensification

Funds
Technology
Policy



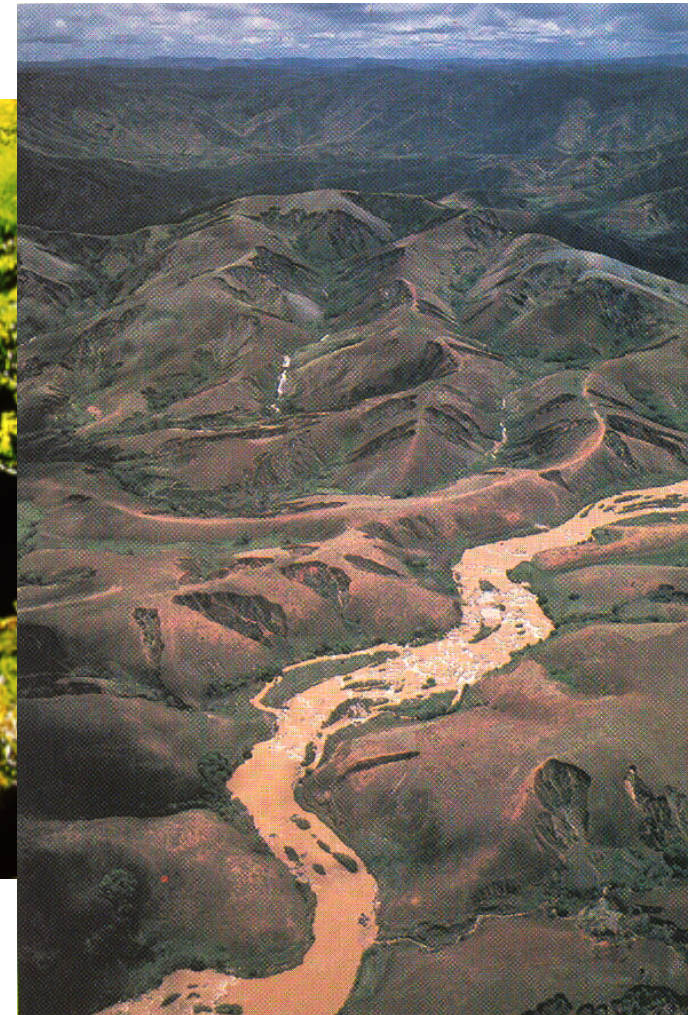
Global Impacts



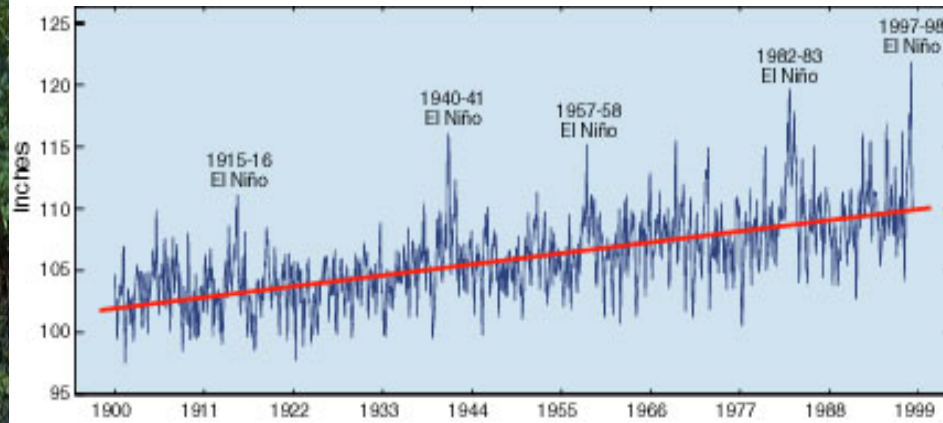
One billion acres of tropical forest lost



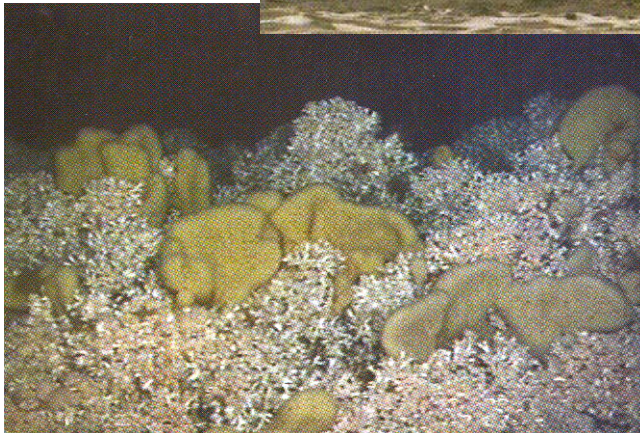
Water Quantity & Quality



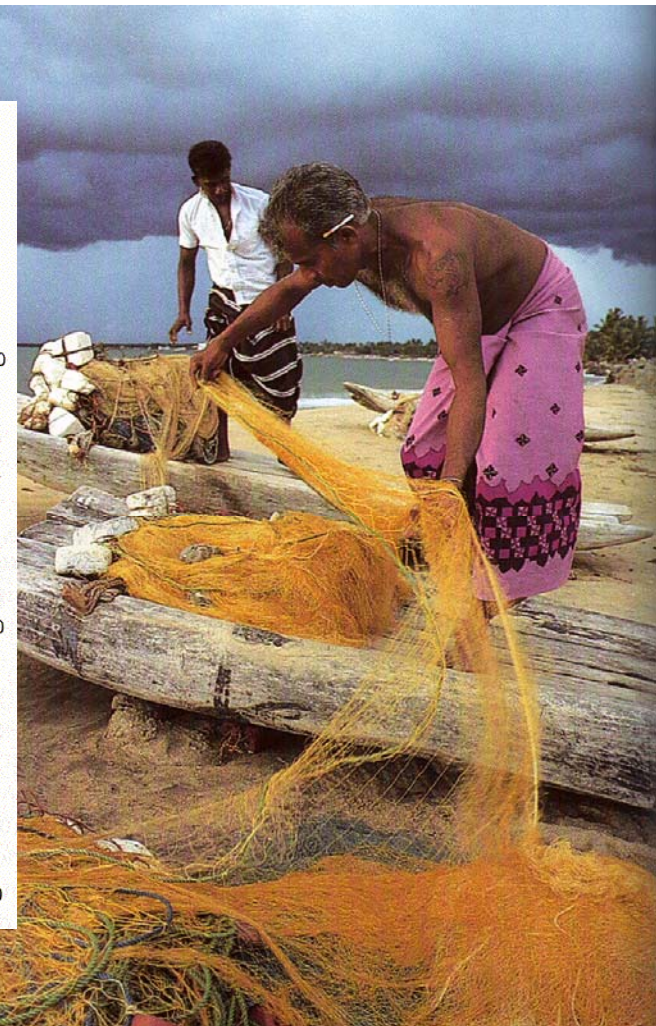
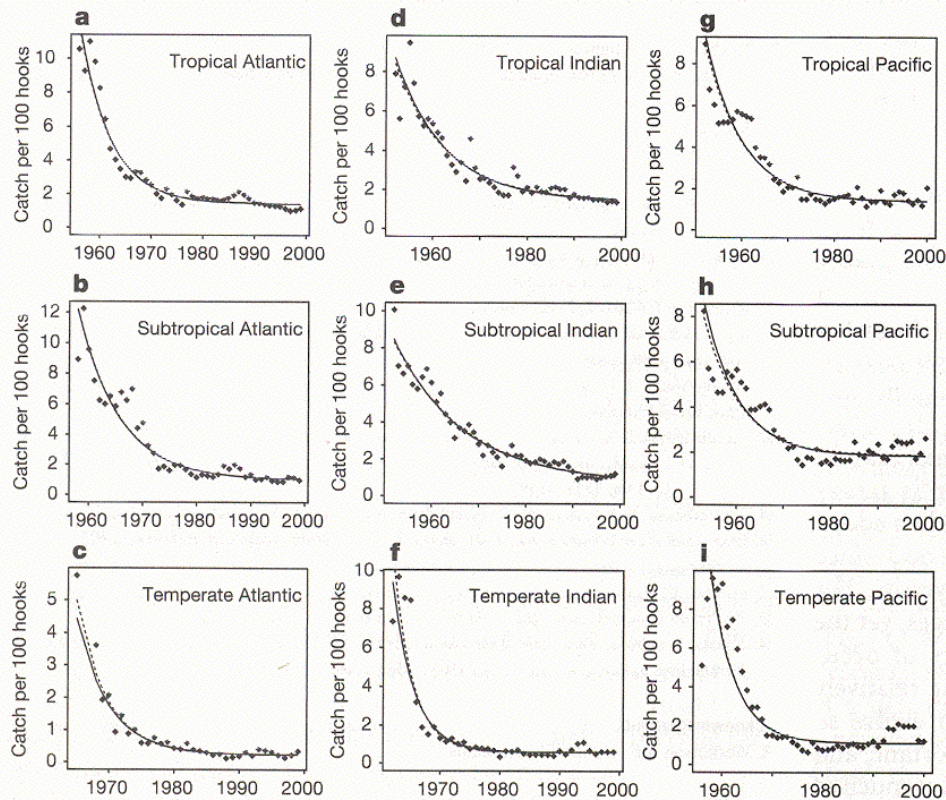
Extreme Weather Events



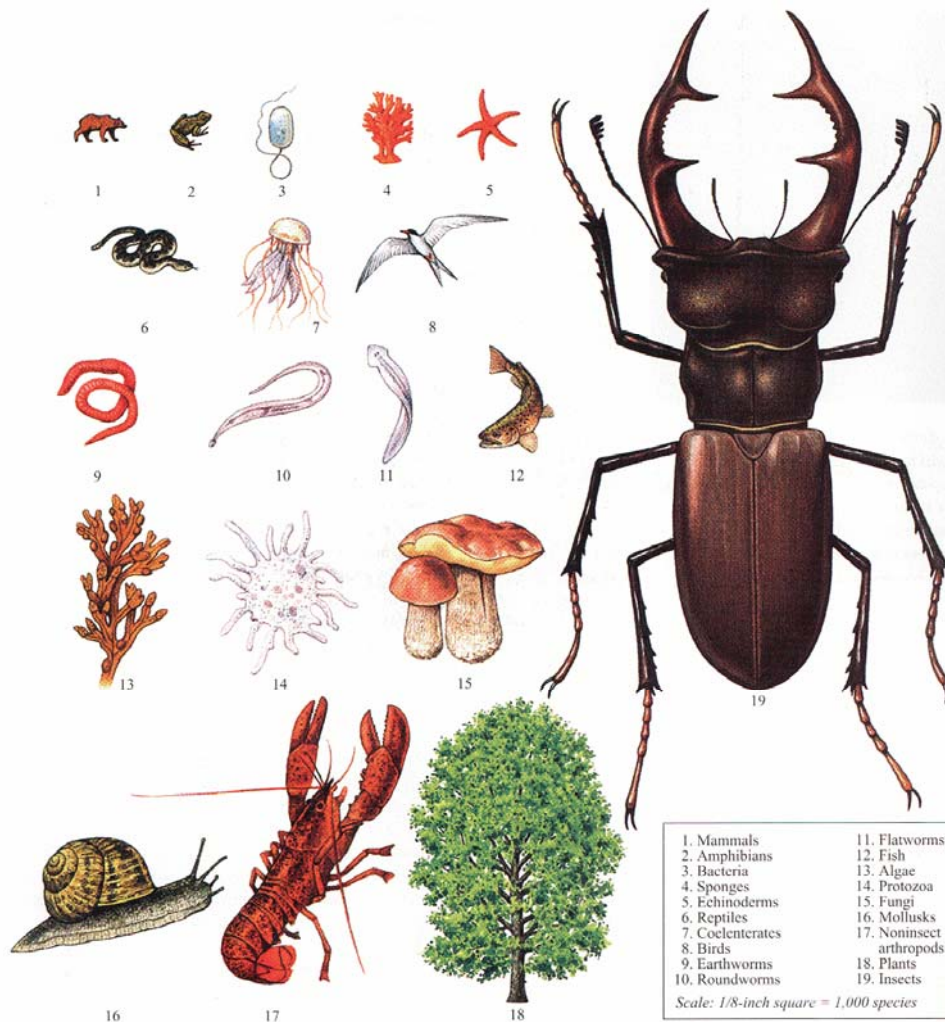
Impacts on Coral Reefs



Local & Global Fisheries



Species and Populations



Vertebrates

- 56,586 spp.
- 21% threatened

Invertebrates

- 1,190,200 spp.
- 58% threatened

Plants

- 287,655 spp.
- 69% threatened

Total

- 1,534,441 spp.
- 59% threatened

Ecosystem Services



Pest Control

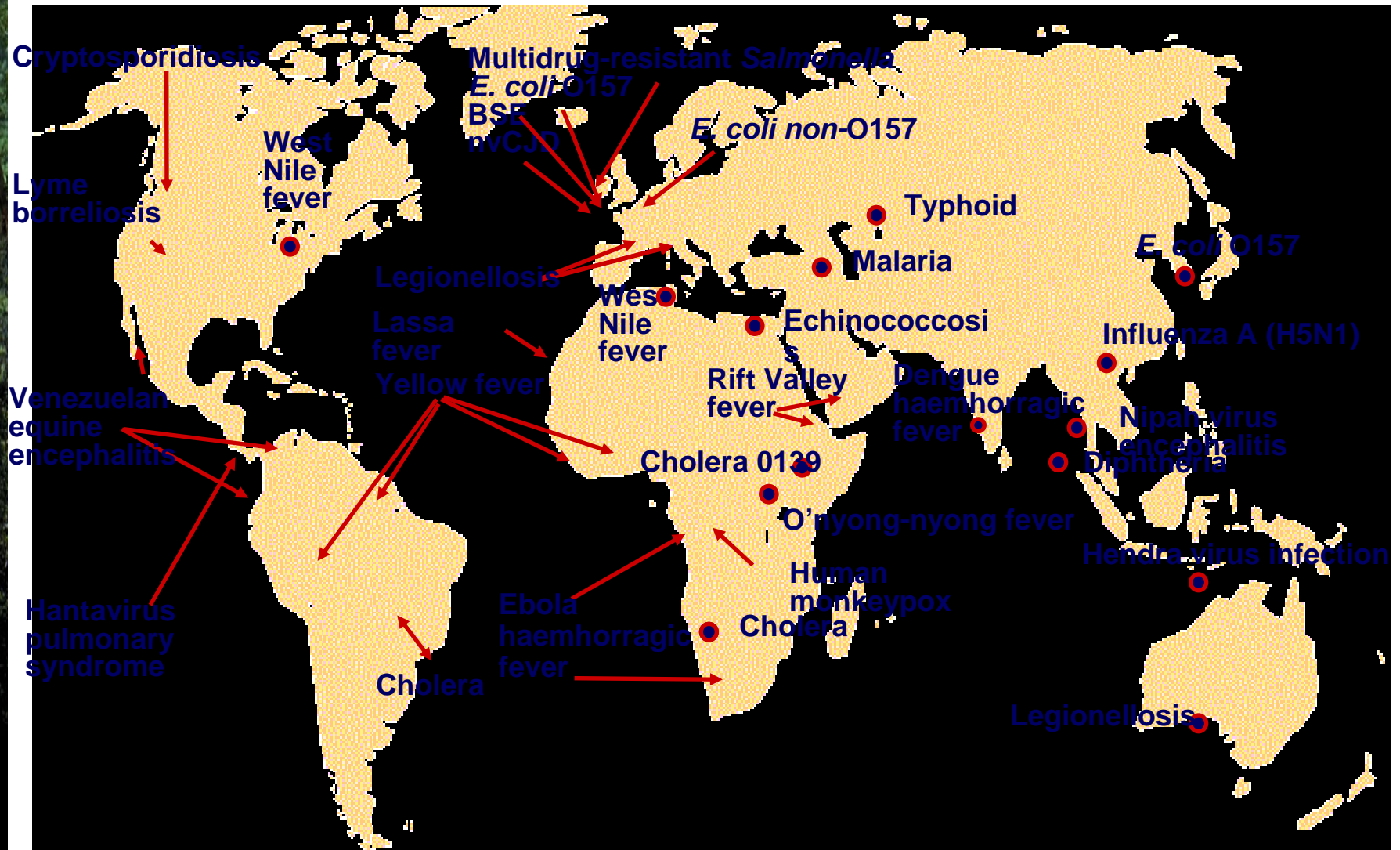


Pollination

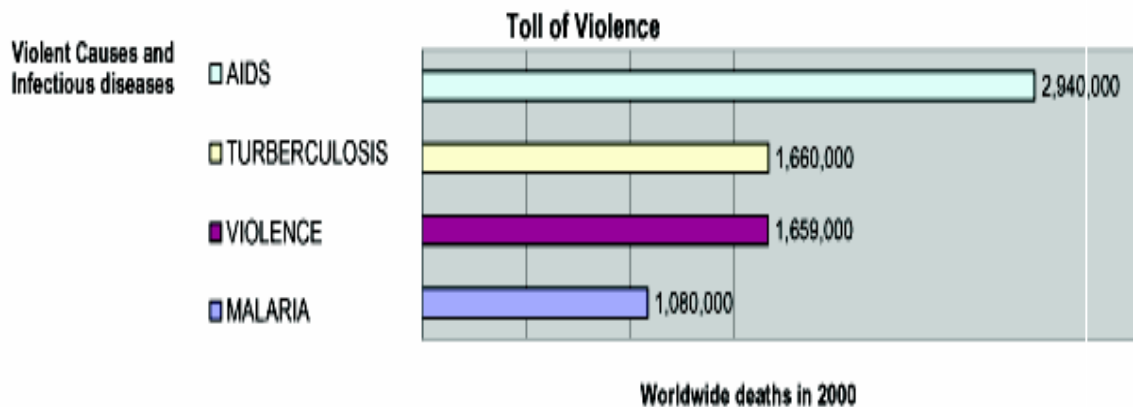
Disease Buffering



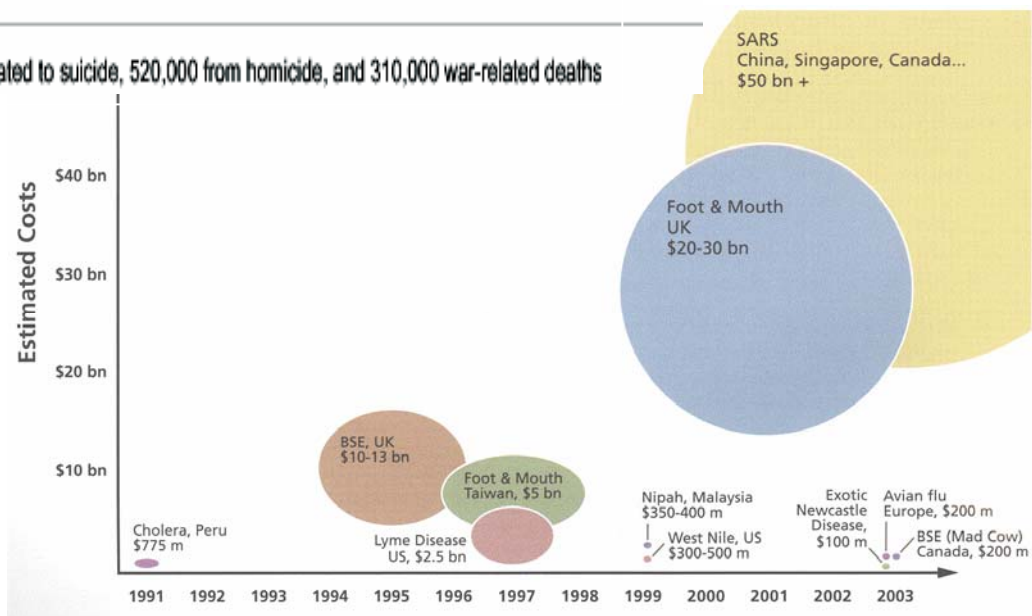
Infectious Diseases



Social Cost of Disease



Violence includes 815,000 deaths related to suicide, 520,000 from homicide, and 310,000 war-related deaths



Rural Landscapes



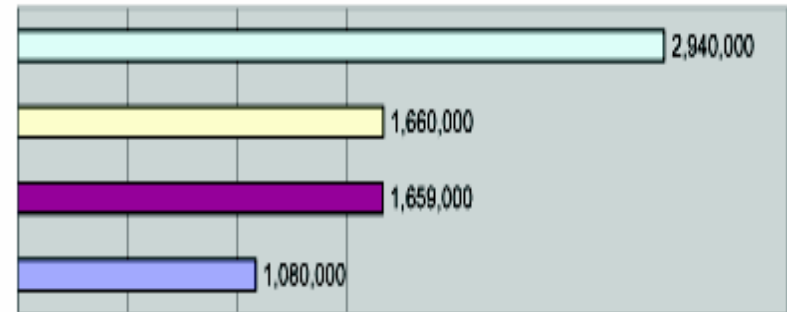
Social Disruption



Violent Causes and Infectious diseases

- AIDS
- TURBERCULOSIS
- VIOLENCE
- MALARIA

Toll of Violence



Worldwide deaths in 2000



Violence includes 815,000 deaths related to suicide, 520,000 from homicide, and 310,000 war-related deaths



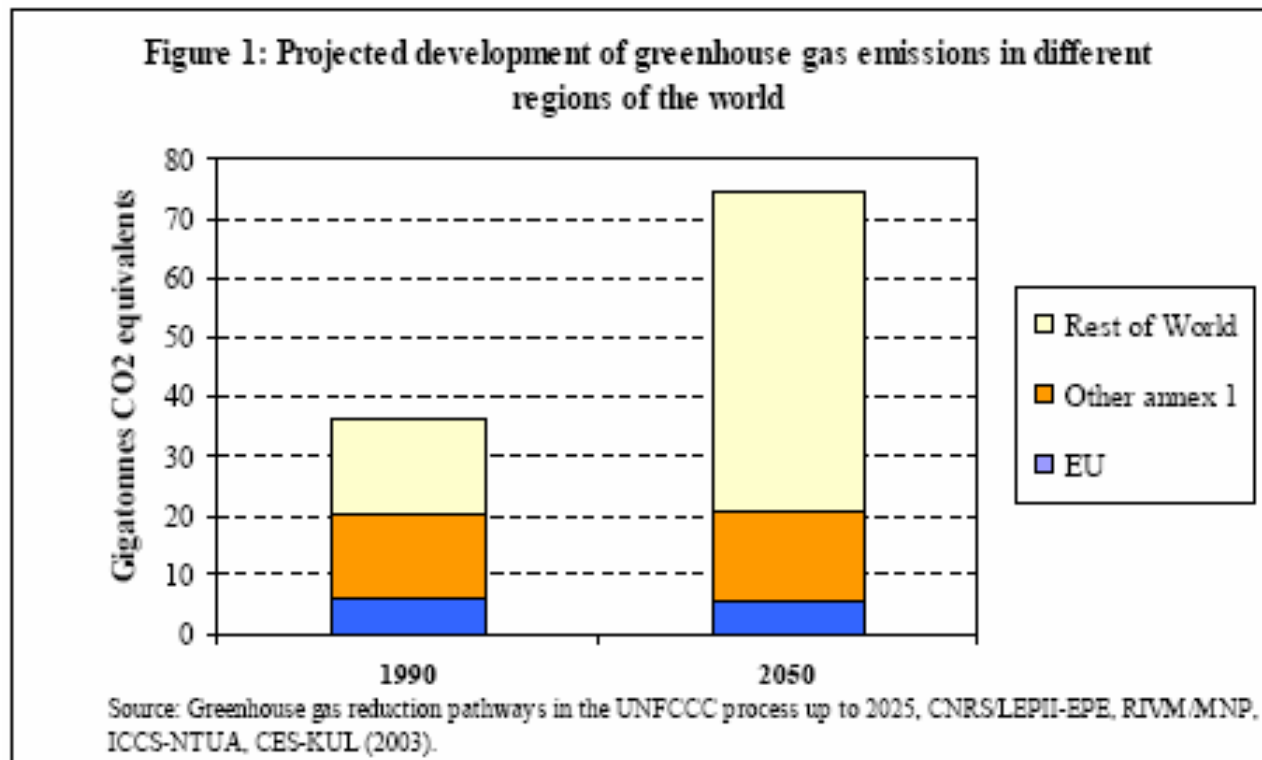
Climate Change



- Temperature Change: Limit global average temperatures from rising 2° C above pre-industrial levels.
- This probably requires:
 - Stabilizing CO₂ concentrations at or below 450 p.p.m.
 - Reducing industrialized country emissions 80% below 2000 levels by 2050.
 - Opportunity for Developing Nations!



Developing Nations



Forests & Carbon



- Land Use Change: The IPCC has concluded that during the 1990's an **estimated 20-25% of global annual greenhouse** gas emissions came from LULUCF - degradation of tropical forests.
- Deforestation: At current annual rates, deforestation from **Brazil and Indonesia alone would equal 80% of the emissions reductions** gained by implementing the KP in its first commitment period.



Forest Carbon Stocks



In forest, carbon is present in different carbon pools

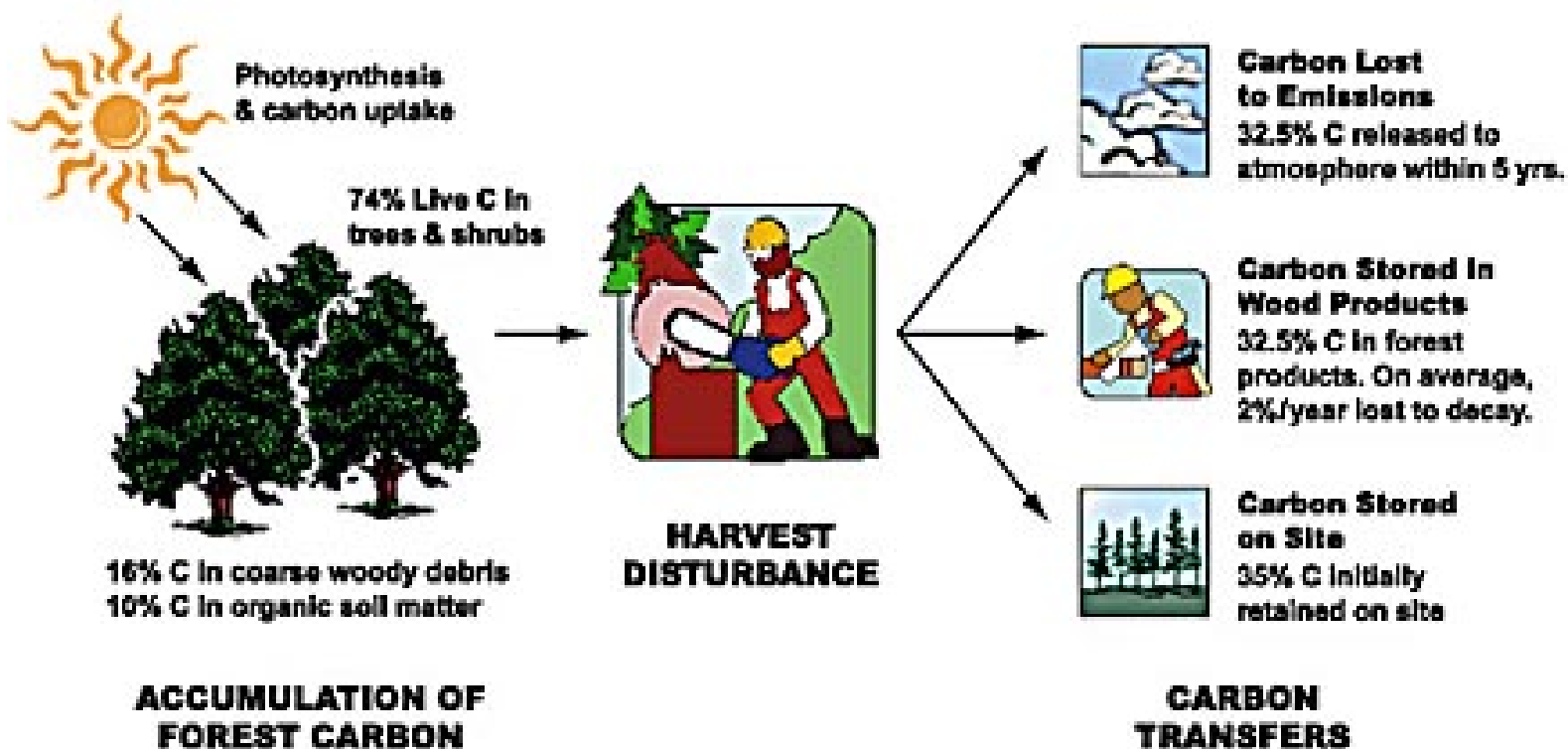
Litter and soil



Above-ground
biomass

Below-ground
biomass

Why Forests Matter



Carbon + : Social Benefit



- Climate: Capture a significant source of carbon emissions currently outside frameworks.
- Rural Development: Significant new revenue streams to addresses poverty in rural areas with clear metrics to access effectiveness.
- National: Increases the flexibility of developing countries through a 'national' approach.
- MDGs: Underpins MDG objectives related to environment, poverty, gender equality, health, etc.
- Biodiversity: Major biodiversity conservation benefits.
- Soils: Supports efforts against desertification and soil erosion.
- Water: Watershed protection and potable water supply.

The Kyoto Dilemma



- KP Exclusion: Kyoto excludes developing nations that reduce deforestation emissions. Kyoto **unfairly discriminates against these nations** in the world carbon markets.
- Market Access: Tropical rainforest nations deserve to be treated equally. If we reduce deforestation, fair compensation for reductions. **A ton is a ton is a ton.**



Forest Cover Change



TABLE 2.5
Ten countries with largest annual net loss in forest area 2000–2005

Country	Annual change (1 000 ha/yr)
Brazil	-3 103
Indonesia	-1 871
Sudan	-589
Myanmar	-466
Zambia	-445
United Republic of Tanzania	-412
Nigeria	-410
Democratic Republic of the Congo	-319
Zimbabwe	-313
Venezuela (Bolivarian Republic of)	-288
Total	-8 216

TABLE 2.6
Ten countries with largest annual net gain in forest area 2000–2005

Country	Annual change (1 000 ha/yr)
China	4 058
Spain	296
Viet Nam	241
United States	159
Italy	106
Chile	57
Cuba	56
Bulgaria	50
France	41
Portugal	40
Total	5 104

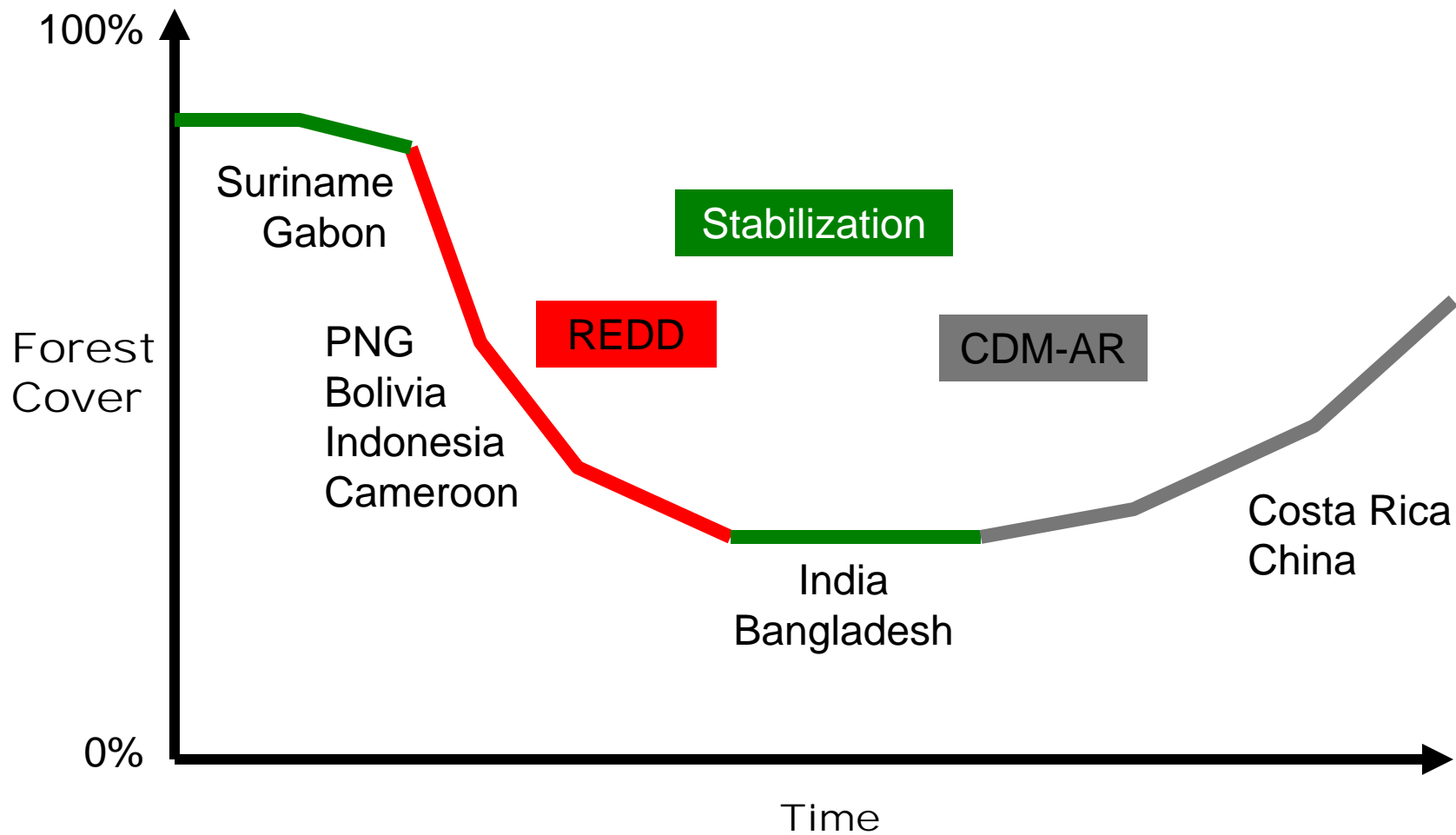
Forest Cover Change



TABLE 2.7
Comparison of forest area estimates in FRA 2005 and FRA 2000

Region	FRA 2005 estimates			FRA 2000 estimates		
	Forest area (1 000 ha)		Annual change (1 000 ha/yr)	Forest area (1 000 ha)		Annual change (1 000 ha/yr)
	1990	2000	1990-2000	1990	2000	1990-2000
Africa	699 361	655 613	-4 375	702 502	649 866	-5 262
Asia	574 487	566 562	-792	551 448	547 793	-364
Europe	989 320	998 091	877	1 030 475	1 039 251	881
North and Central America	710 790	707 514	-328	555 002	549 304	-570
Oceania	212 514	208 034	-448	201 271	197 623	-365
South America	890 818	852 796	-3 802	922 731	885 618	-3 711
World	4 077 291	3 988 610	-8 868	3 963 429	3 869 455	-9 391

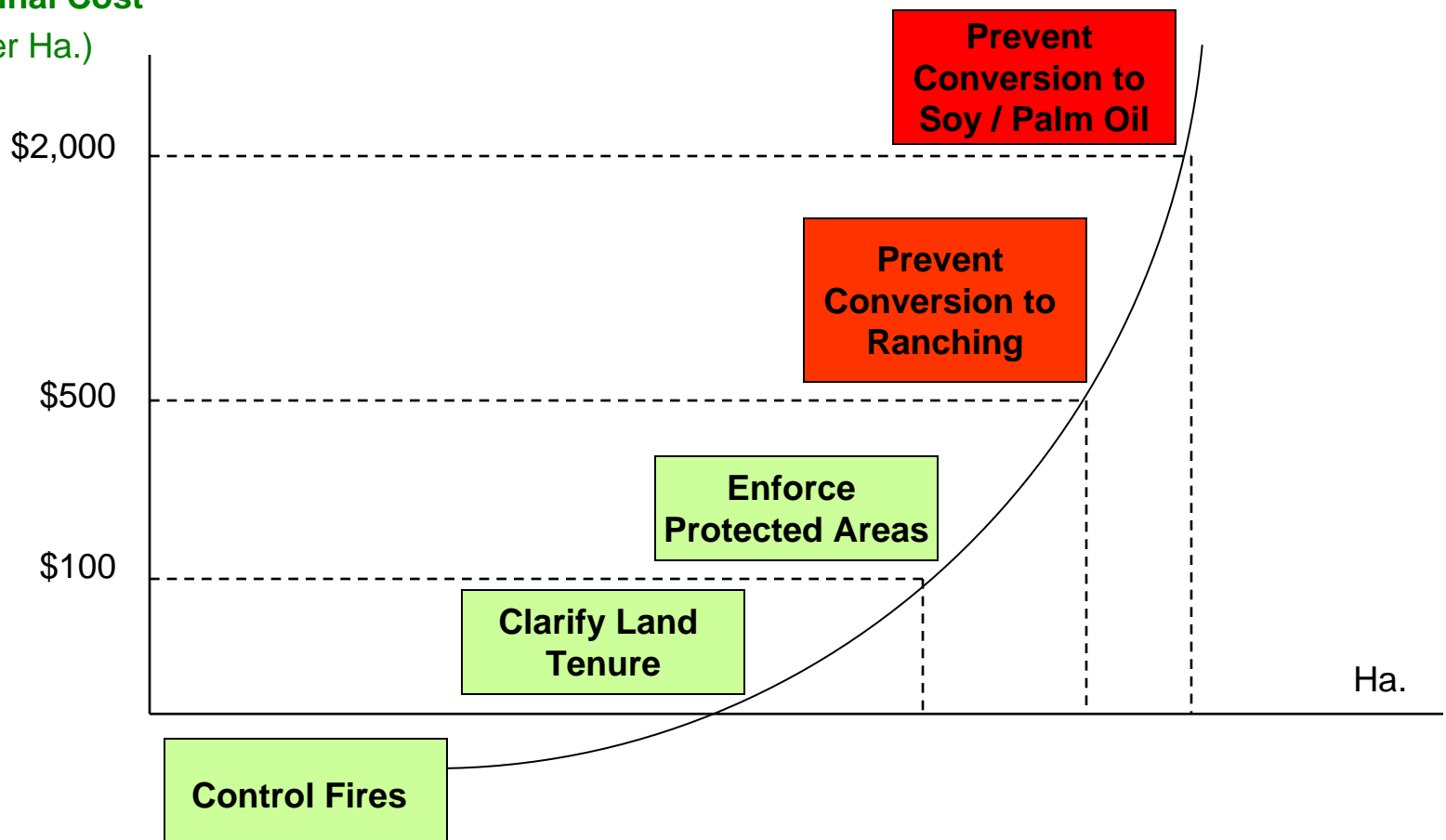
Forest Cover Trends



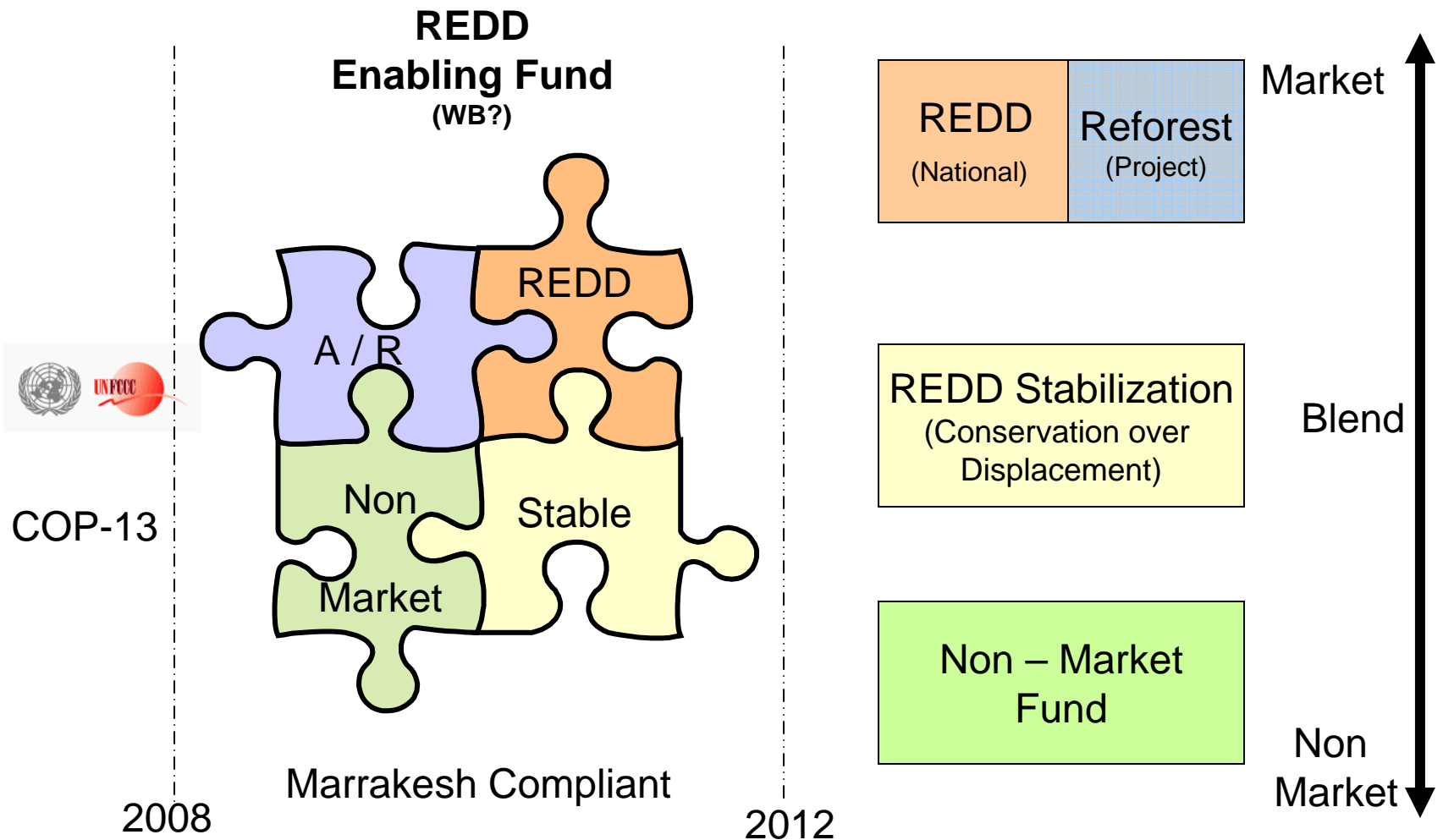
Land Opportunity Cost



Marginal Cost
(Per Ha.)



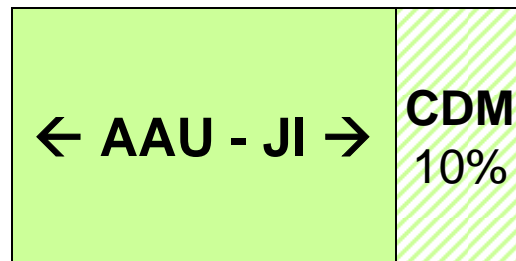
Basket of Instruments



Additional: Deeper Cuts



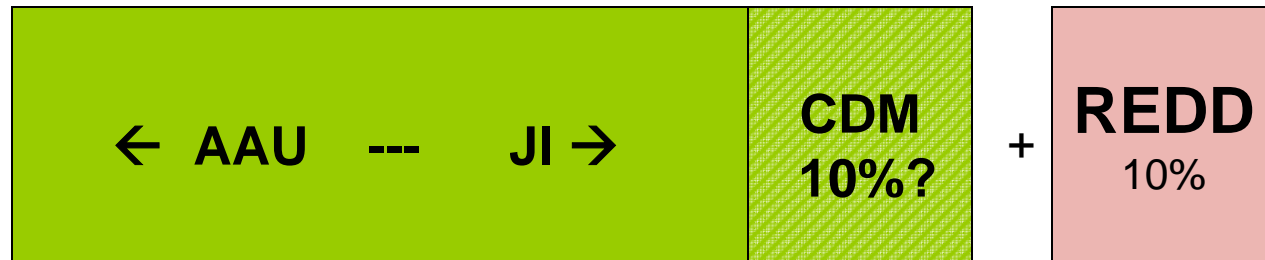
KP1
(- 6%)



Additional



KP2
(- 20%?)



New Total
-30%?

NOT CDM
NEW CREDITS = DEEPER CUTS

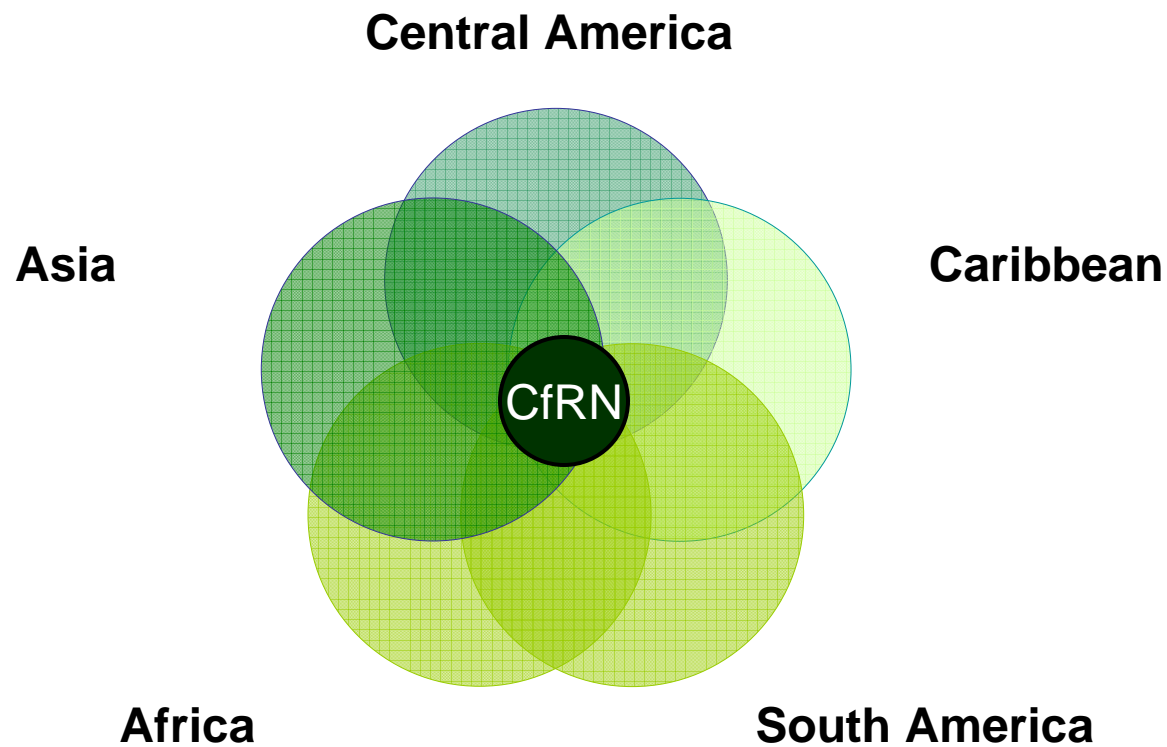
Rainforest Coalition



- Bolivia
- Cameroon
- Central African Rep.
- Congo
- Costa Rica
- DR Congo
- Dominican Republic
- Fiji
- Gabon
- Guatemala
- Nicaragua
- Panama
- Papua New Guinea
- Solomon Islands
- Vanuatu



Rainforest Coalition



Interregional Policy Development & Consensus

Policy Principles



- Pre-Conditions: Voluntary. Funding at scale: \$5 - \$30 Billion/year. Markets instruments most likely. If so, deepen Annex-B Targets: any new supply must be met by new demand.
- Expand Existing Efforts: Build on Successes and lessons learned in both Annex and Non-Annex. Build Capacity. Pilot National Scale.
- Credit for Early Action: Facilitate funding flows. Pre-2012 emissions reductions can be credited post-2012.
- Sustainable Financial Resources: Traditional monies not sustained, not adequate. Countries need certainty to begin transformations.