

Social and political drivers of land use change, deforestation & degradation

Camilla Toulmin, IIED

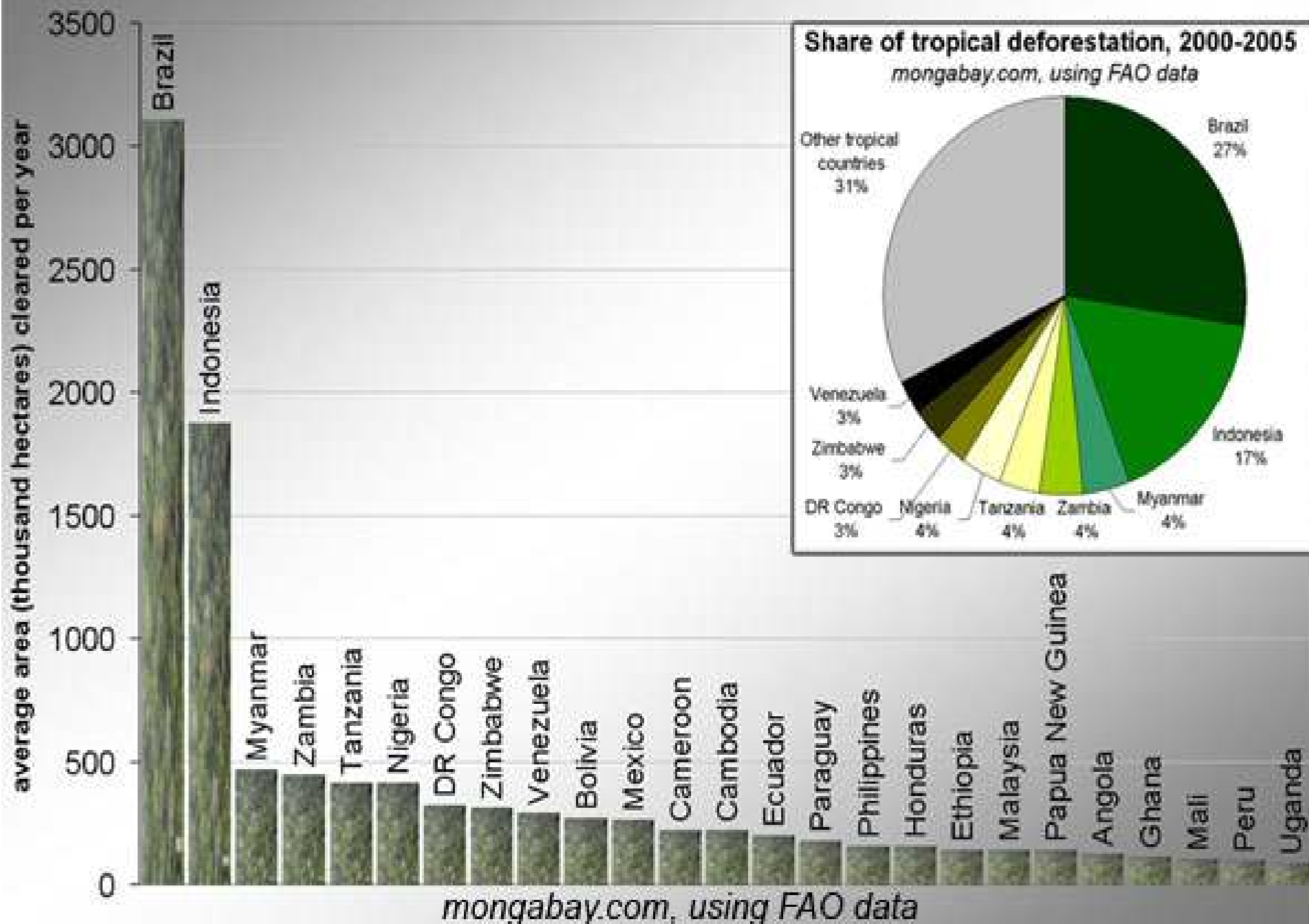
DIIS, Copenhagen, April 21st 2009



Summary of points

- Facts and figures on deforestation
- Why does it matter?
- Principal drivers by region
- Consumption-Governance-Policy
- Questions & implications for COP15 process and after.....

Tropical deforestation rates, 2000-2005

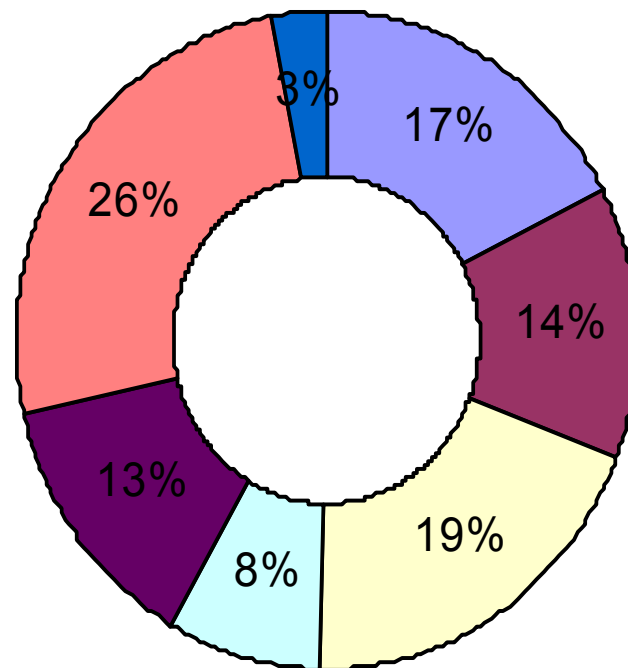


Annual change in forest area (10,000km²)

Region	1990s	2000-2005
Africa	-44	-40
Asia	- 8	+10
Europe	+ 9	+ 7
N&C America	+ 3	- 3
S America	-38	-43
Global	-89	-73

Why does deforestation matter?

GHG Emmissions by Sector



- Forestry
- Agriculture
- Industry
- Buildings
- Transport
- Power generation
- Waste

Why does deforestation matter?

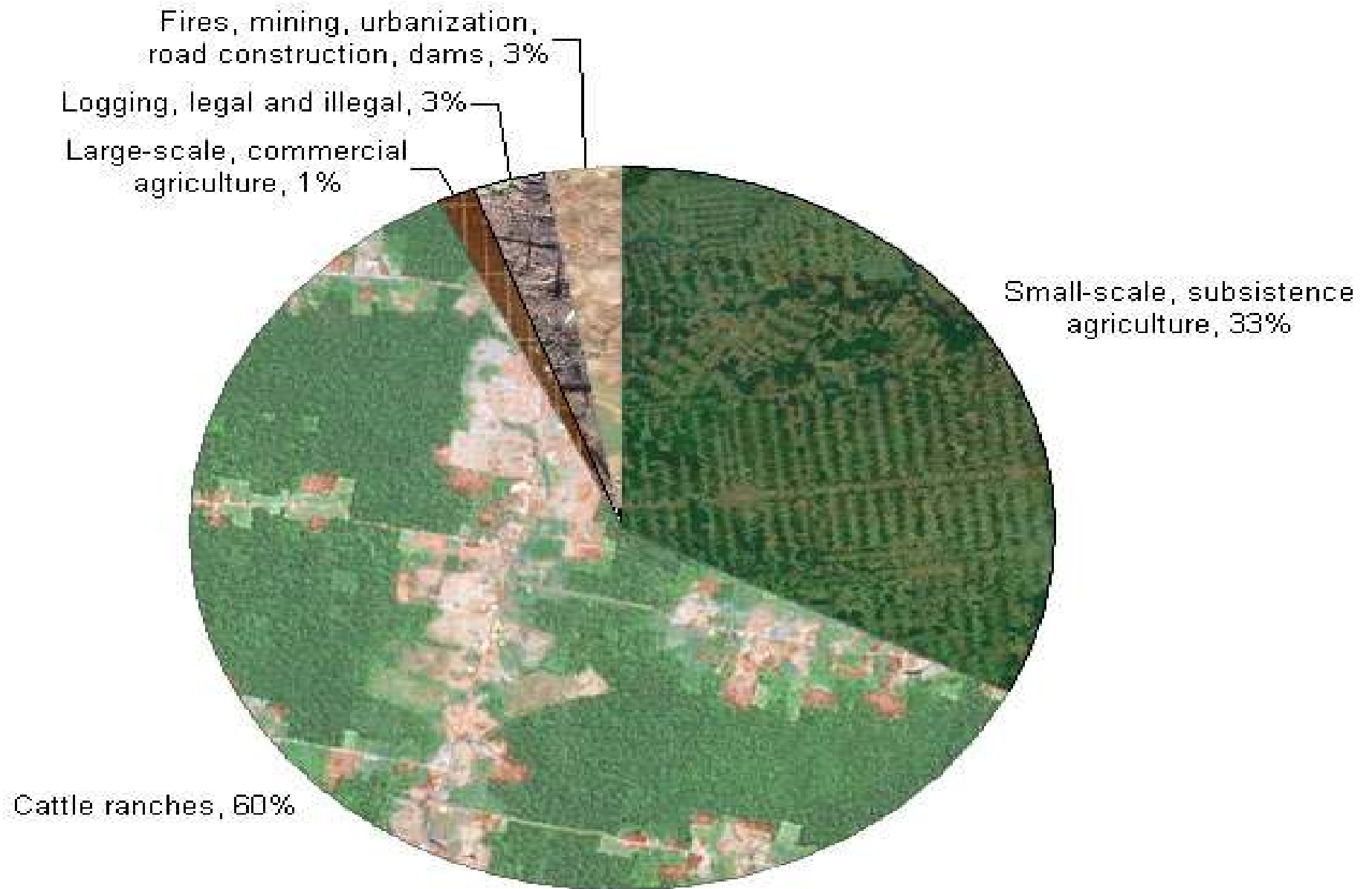
Not only carbon but also....

- Biodiversity
- Water runoff, purification
- Nutrient and water cycling
- Rainfall regulation
- Livelihoods – food, fibre, biomass, medicines
- Spiritual, recreational assets

Major rainforest nations – principal drivers by importance

West & Central Africa	South America	S, SE Asia & Pacific
Shifting cultivation Commercial crops Timber extraction Fuelwood, charcoal and NTFPs Cattle ranching	Shifting cultivation Cattle ranching Commercial crops Timber extraction Fuelwood, charcoal and NTFPs	Shifting cultivation Timber extraction Commercial crops Fuelwood, charcoal and NTFPs Cattle ranching

Causes of Deforestation in the Amazon, 2000-2005









Driver 1 – consumer demand

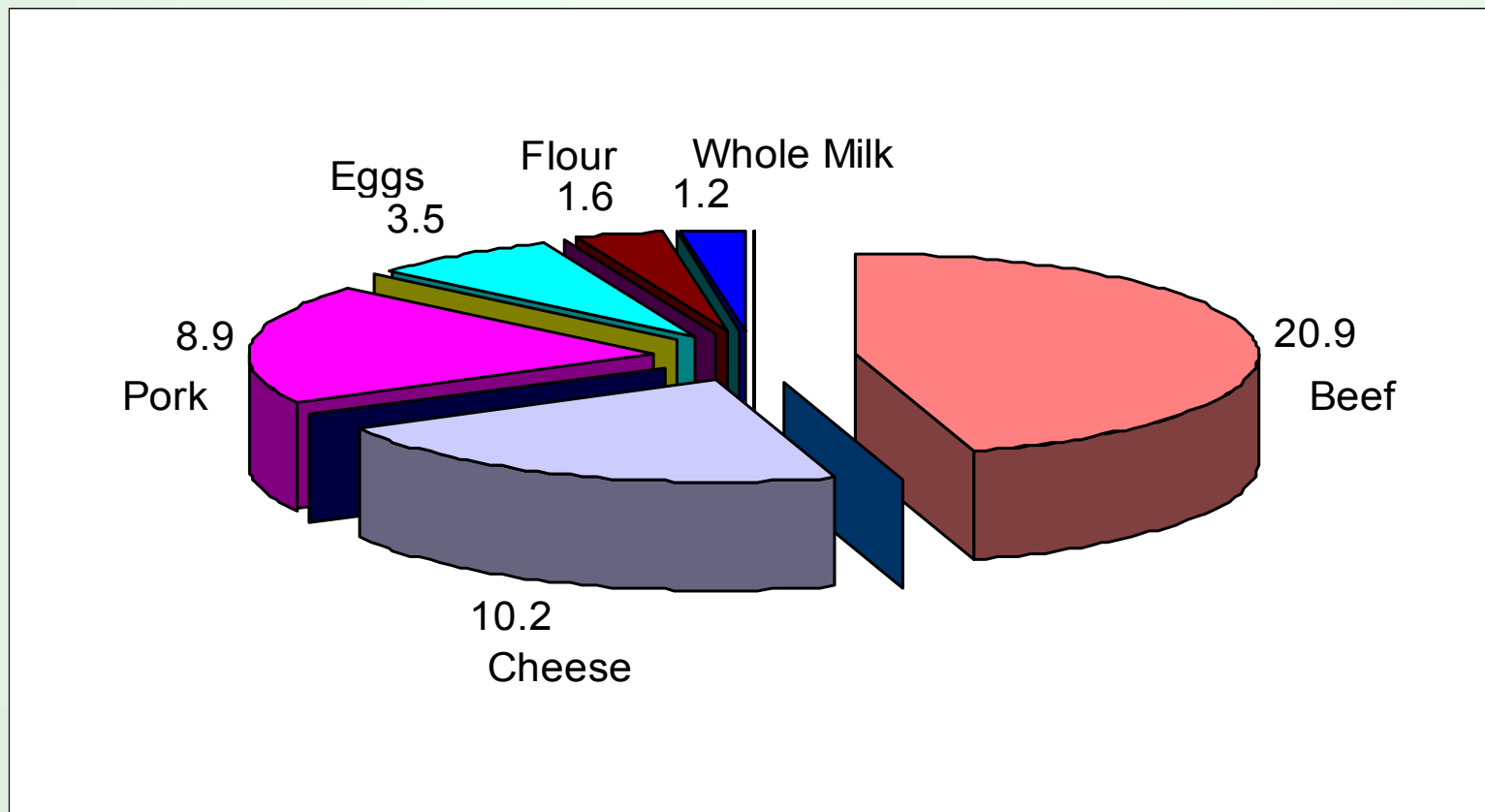


As Fred Pearce argues.....

- 13 APR 2009: **Opinion**
- Consumption Dwarfs Population As Main Environmental Threat
- *It's overconsumption, not population growth, that is the fundamental problem: By almost any measure, a small portion of the world's people — those in the affluent, developed world — use up most of the Earth's resources and produce most of its greenhouse gas emissions.*



Land required for producing different foods



(Land measurements in m² year kg)

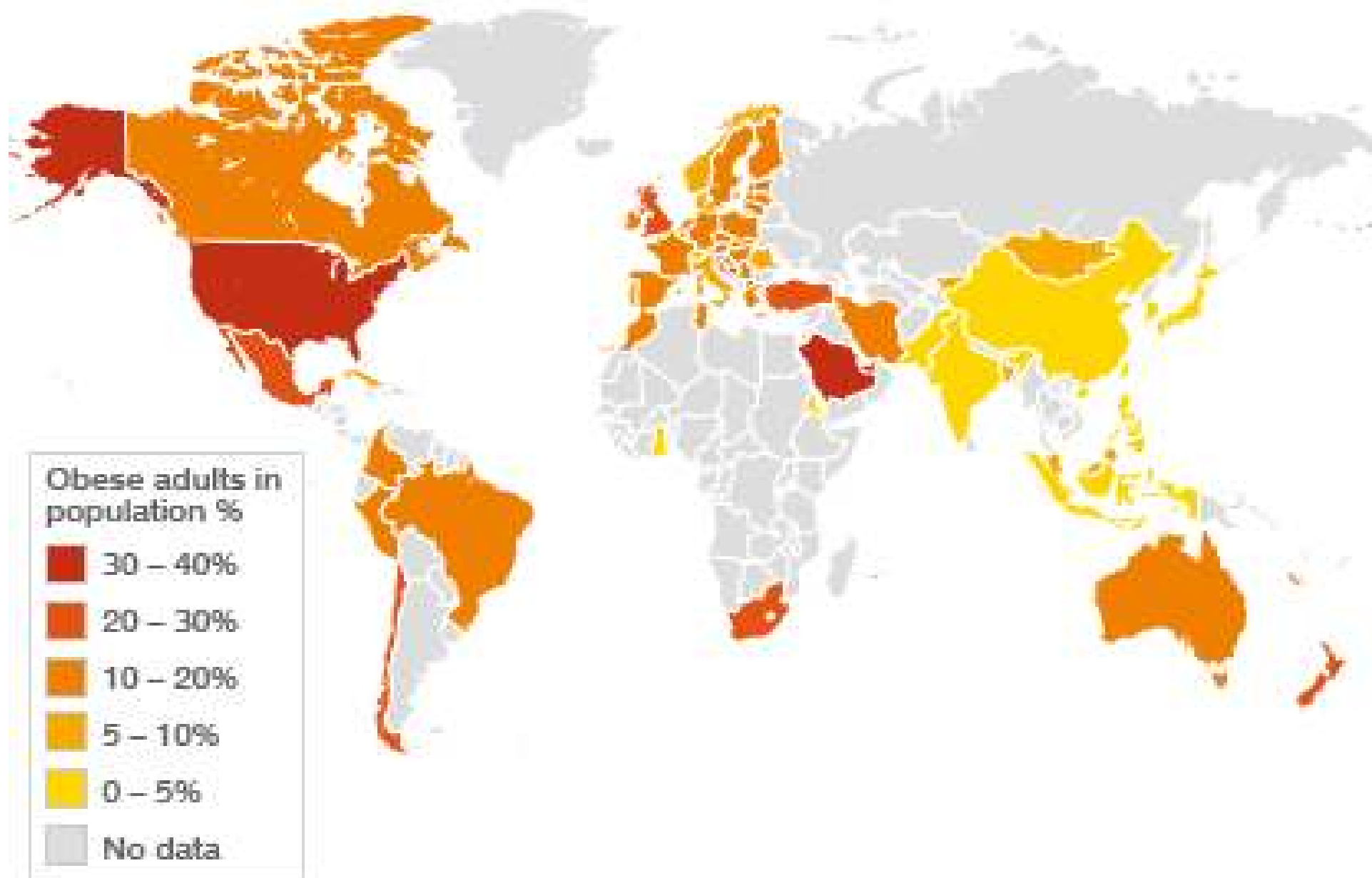
Fruits (average) 0.5; Vegetables (average) 0.3
Potatoes 0.2
Not shown

Country	Land use	Returns \$/ha
Brazil	Soybeans	3,275
	Beef cattle	413
	Timber harvest	251
Indonesia	Palm oil	3,340
	Timber harvest	1,099
	S-scale rubber	72
Cameroun	Cocoa + fruit	1,448
	S-fallow food	821
	L-fallow food	367

Growth in consumption from..

- Rising incomes + changes in diet
- Top 7% of world's people produce 50% emissions of GHG
- Bottom 50% world's people generate 7% emissions of GHG
- Larger footprint analysis – not just carbon, but also water, biodiversity...

THE GLOBAL OBESITY PROBLEM



An obese adult is classified as having a Body Mass Index equal to or greater than 30

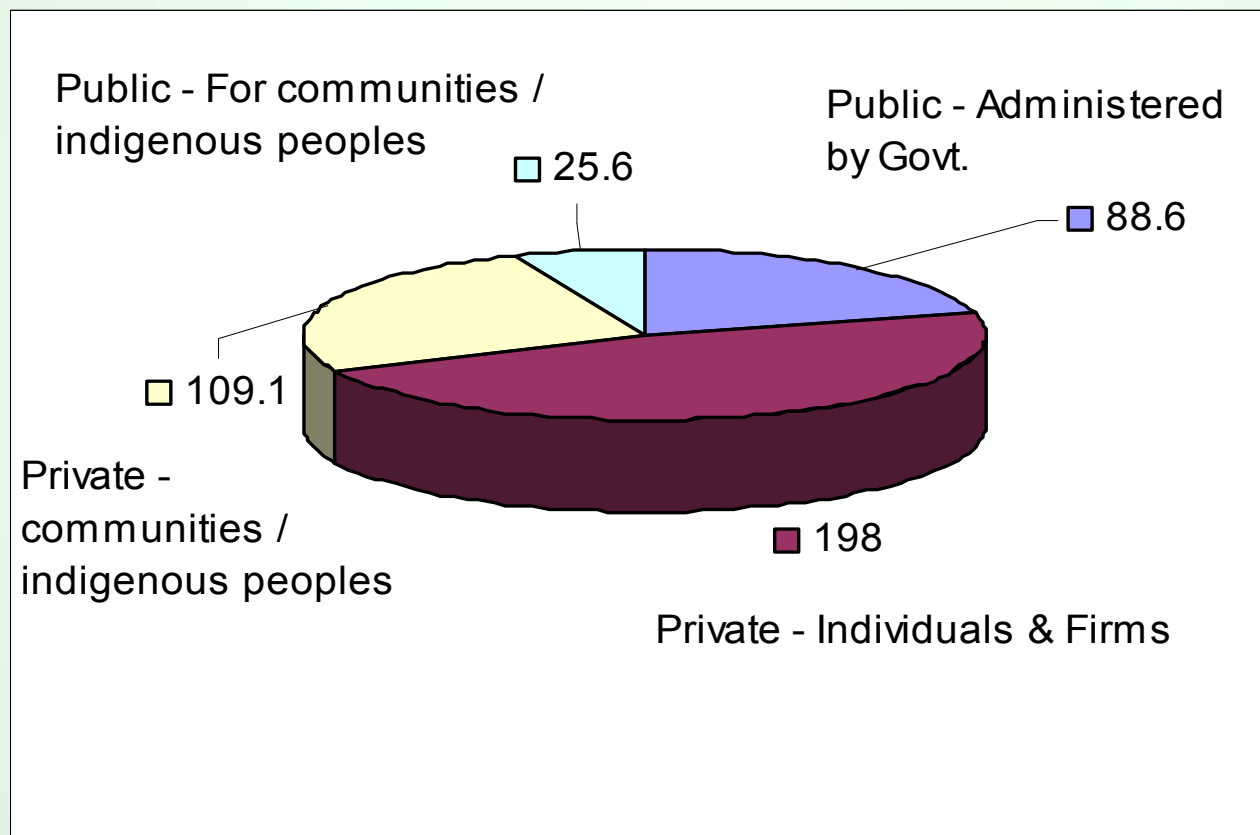
SOURCE: World Health Organization, 2006

Driver 2 - Governance

Getting better governance means:

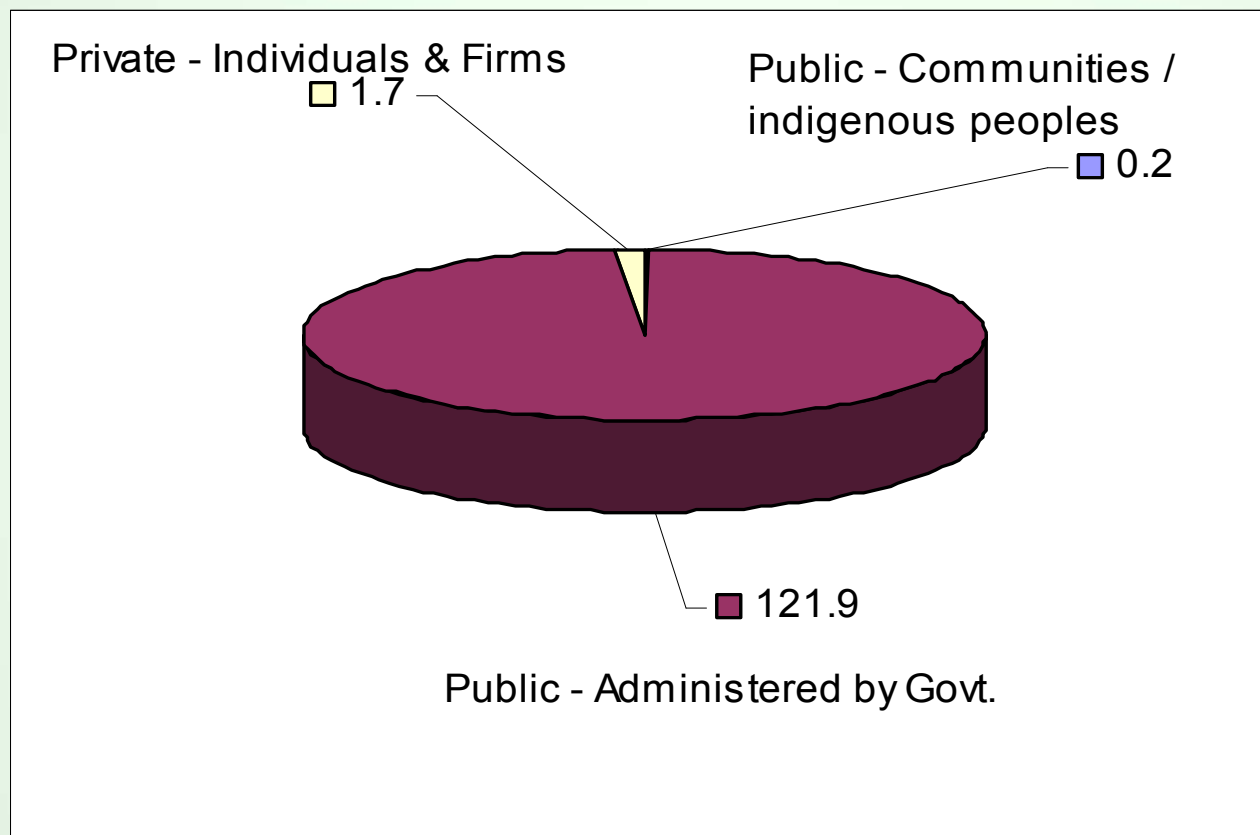
- Poverty focus, addressing illegality, support to local level enterprise
- Affirmation of local rights
- Clarify private vs collective interests
- Address pattern of interests and power asymmetry
- Enforcement and accountability
- Access to information, monitoring

Forest Tenure (million ha)



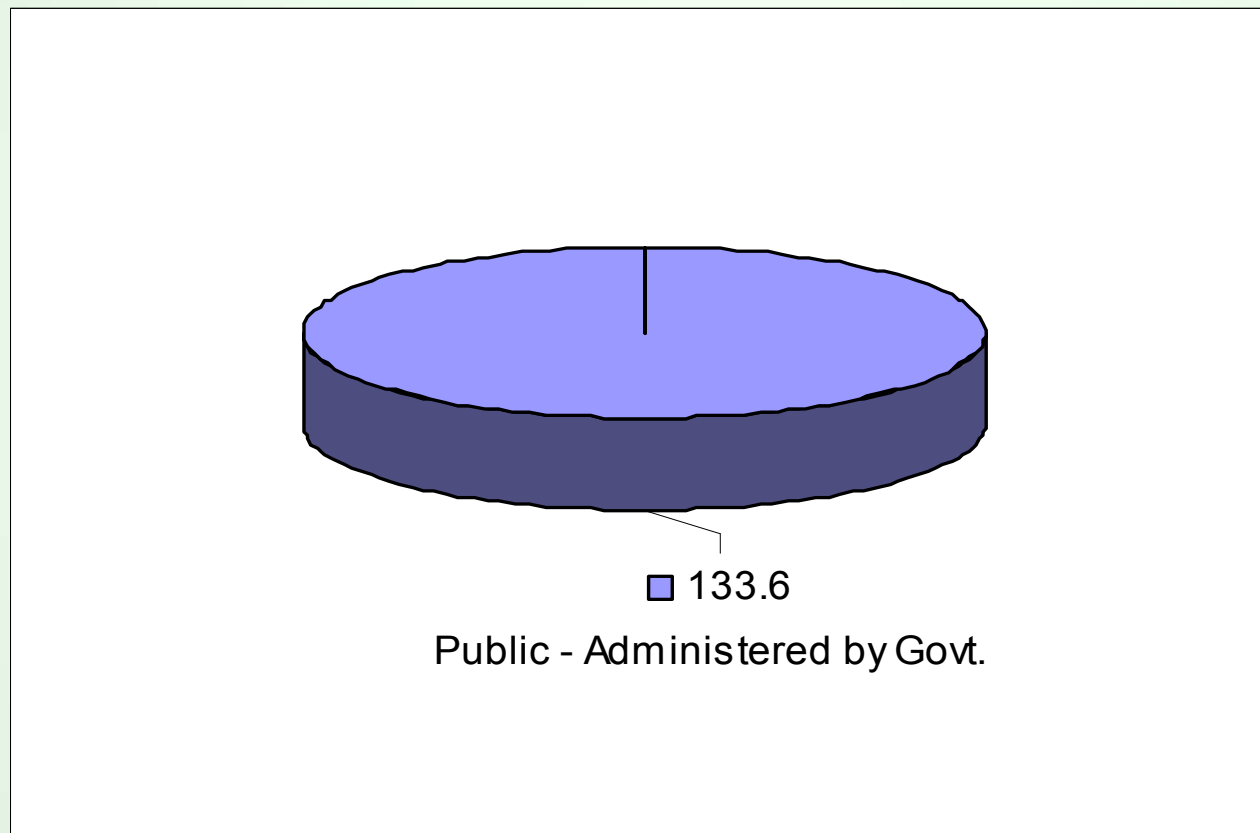
Brazil

Forest Tenure (million ha)



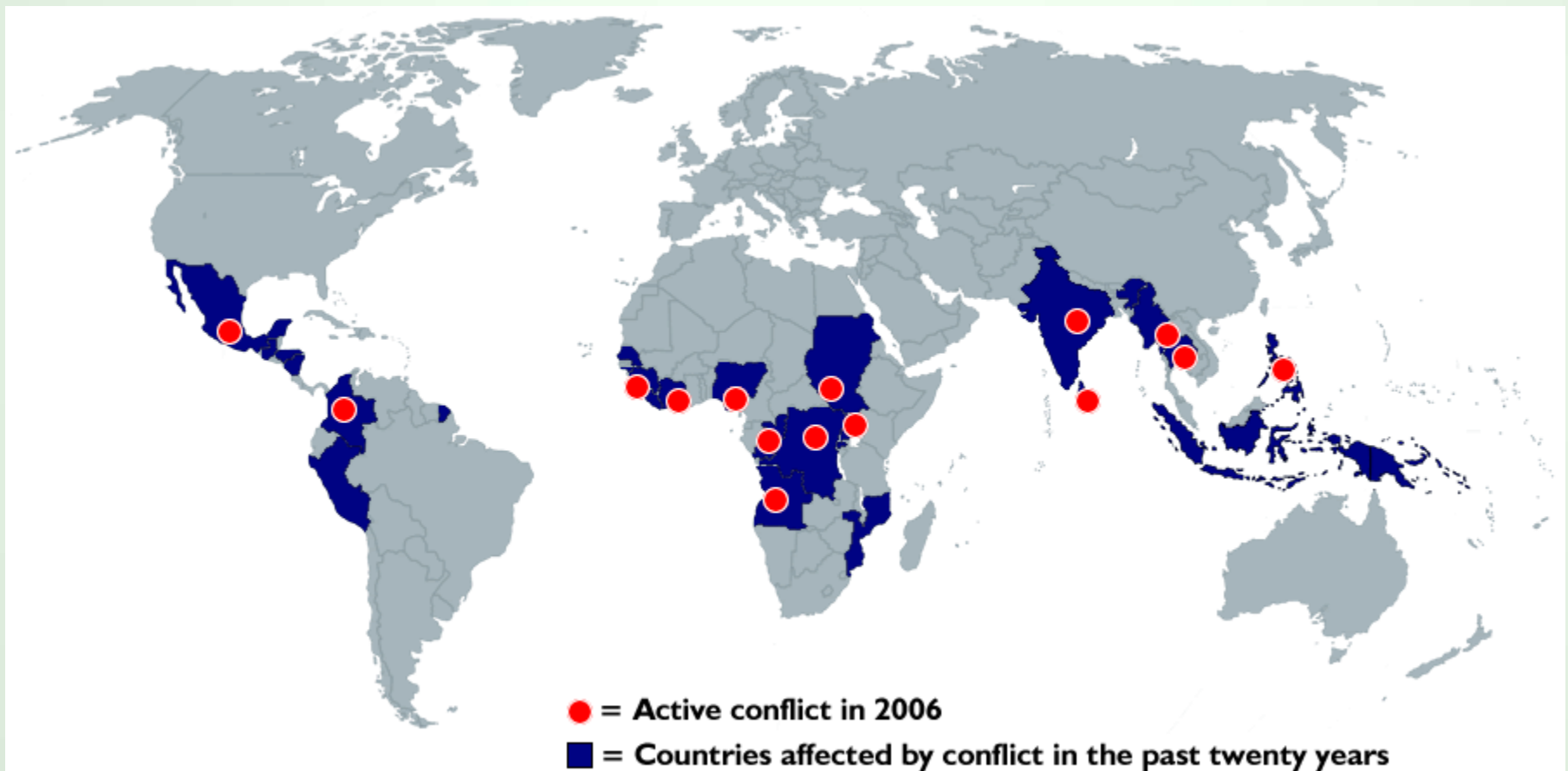
Indonesia

Forest Tenure (million ha)



Democratic Republic of Congo

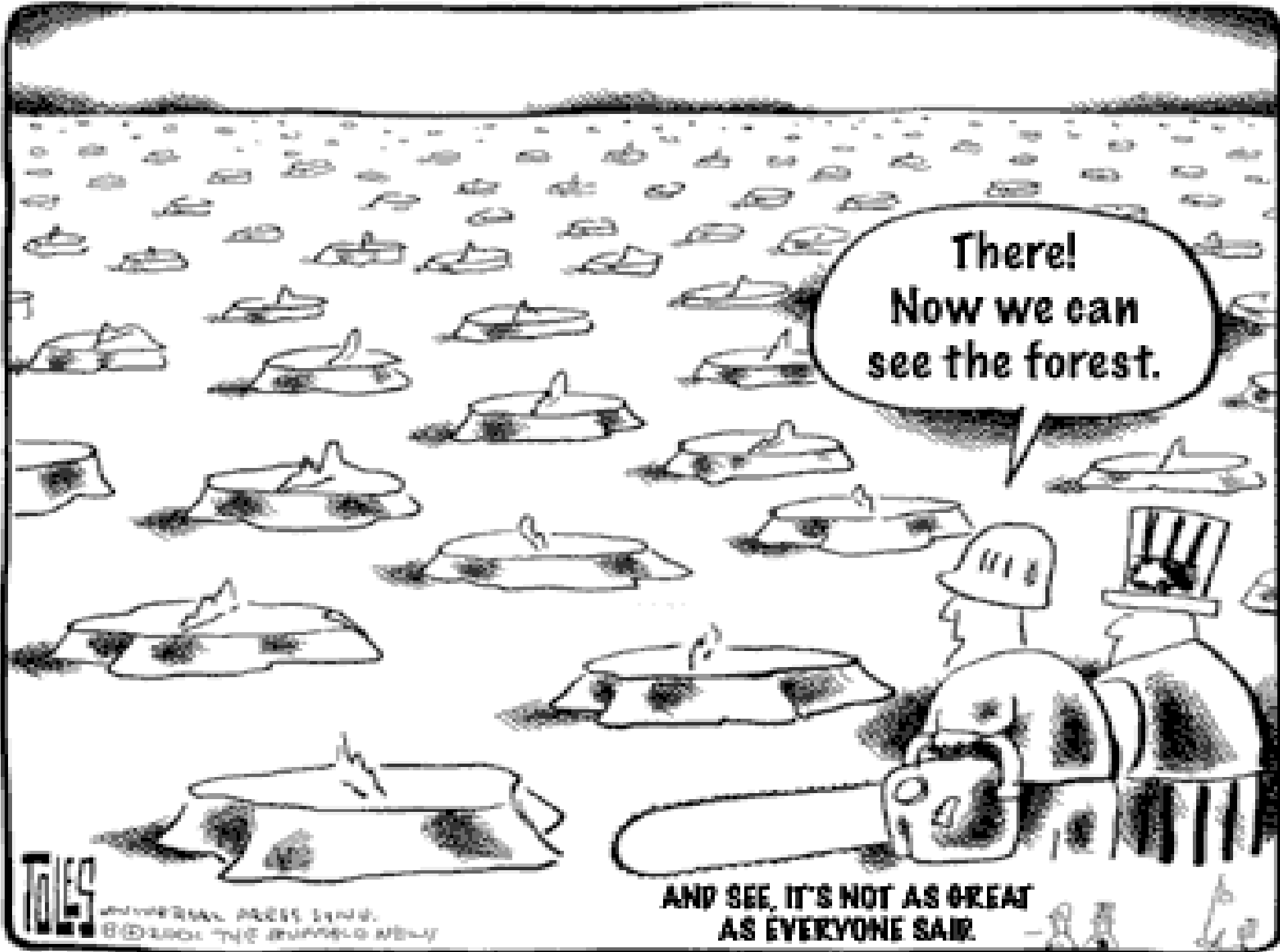
In the past twenty years 30 countries in the tropical regions of the world have experienced significant conflict between armed groups in forest areas.



Source: D.Kaimowitz ETFRN NEWS 43/44

Driver 3 - Policy

- Economic policy – subsidies, tax breaks
- Regulations – renewables obligations, ban on timber felling, establishing protected areas
- Infrastructure – roads, resettlement



There!
Now we can
see the forest.

AND SEE, IT'S NOT AS GREAT
AS EVERYONE SAID.

TOLES

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Questions about REDD @ COP15 and after.....

- Identify drivers before designing systems
- What combination ODA/C market revenue?
- REDD readiness – governance, tenure, capacity, payment mechanisms
- Interface REDD and agricultural land, price shifts and food shortages – boom cycles
- Terrestrial carbon approach – and add non-C elements
- Dry forests and adaptation element



