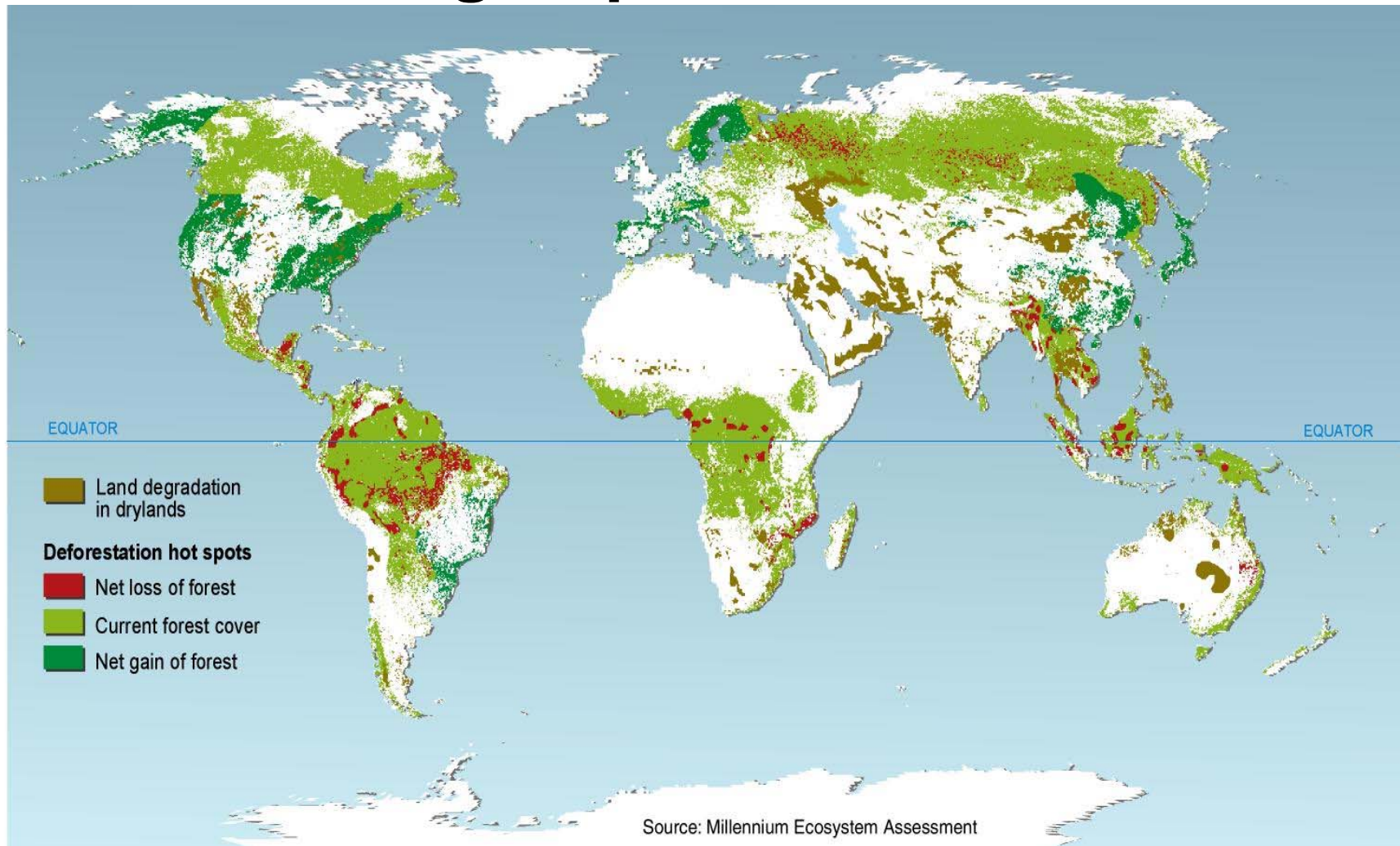


# What international schemes are there for reducing tropical deforestation?



Alain Karsenty, Cirad

# Avoided Deforestation: the principle

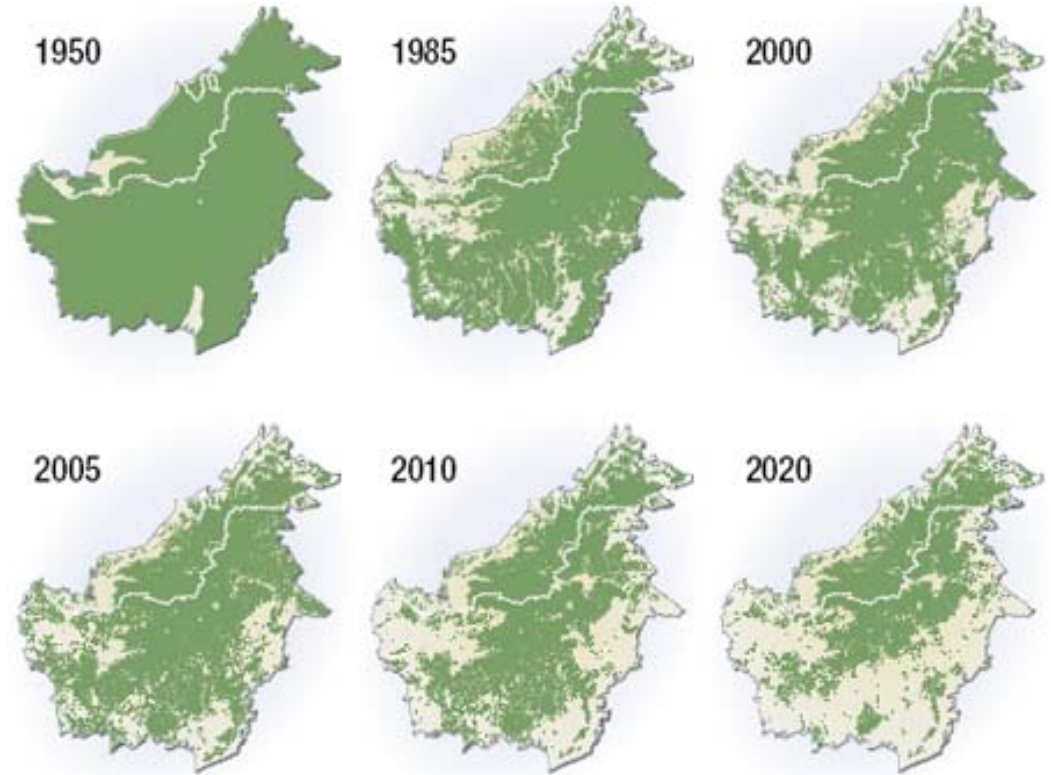
- Tropical forests are not global public goods as resources are under national sovereignty and local control but they could be considered as such as ecosystems fulfilling environmental services
- Avoided Deforestation (AD) is often seen as an International Payment for Environmental Services
- AD mechanism proposed by PNG, Brazil and other countries (e.g. Congo Basin's countries), but each with different features
- Common points: financial rewards for countries reducing their deforestation rate, with carbon credits (Kyoto assets) or money equivalent (special fund to be set up)
- Major difficulties in the current negotiation process:
  - How to choose and set up baselines?
  - Should we take into account forest degradation (by logging)?
  - Should it be included as a Kyoto instrument (fungible credits, second commitment period 2013-2017) or independent (special credits or money) ?

# How is (additional) reduction of deforestation assessed?

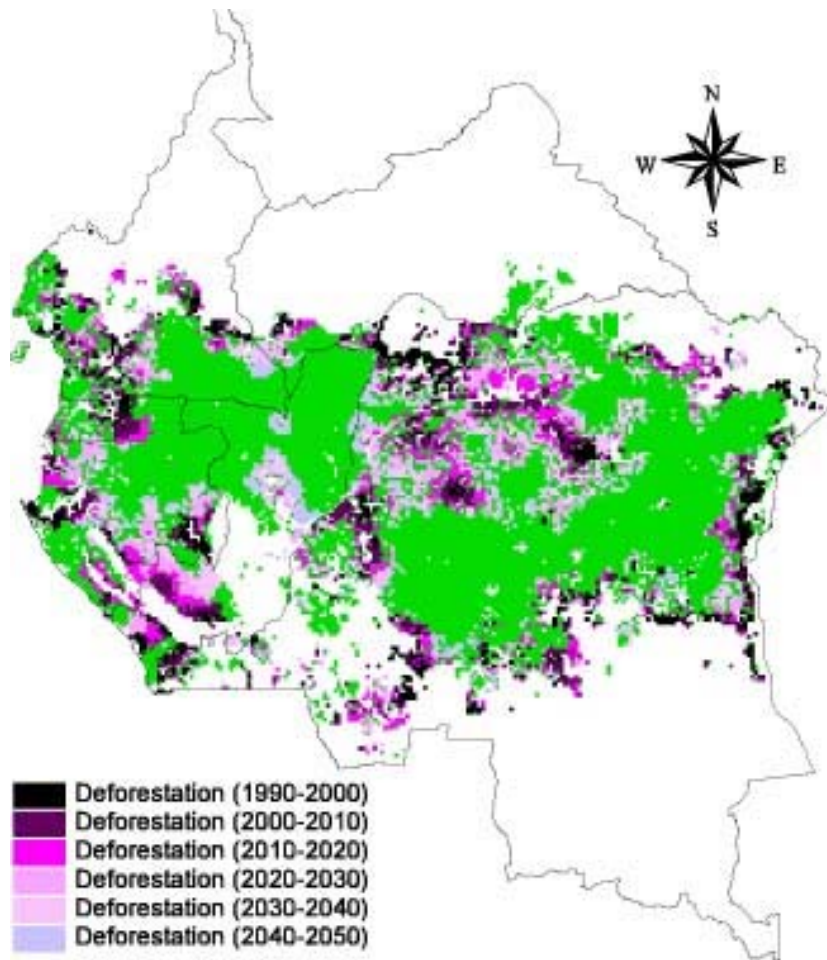
- Monitoring physical deforestation is difficult, but one can guess difficulties will be reduced over time
- More difficult will be to reach an agreement on the benchmark against which deforestation on the committed period is compared to
- Most proposals suggest deriving the baseline from an average of past trends of deforestation
- Some others (e.g. Congo Basin countries) claim an “adjustment factor” allowing them to increase their future deforestation, but keeping a possibility to be credited anyway
- Some researchers would prefer “predictive” baselines based on anticipated rates of deforestation country by country

# Historical reference: winners and losers

- Indonesia and Malaysia have had and still have huge deforestation rates since the 1980s, but forest cover tends (or will tend) now to concentrate on highlands: lower trend of deforestation is expected for “mechanical” reasons
  - Future reductions likely to be “non additional”
- Peru, Bolivia, Congo Basin countries likely to be the “losers” with such baseline reference: they are asking the benchmark to anticipate deforestation trends



# Can we predict deforestation rates?



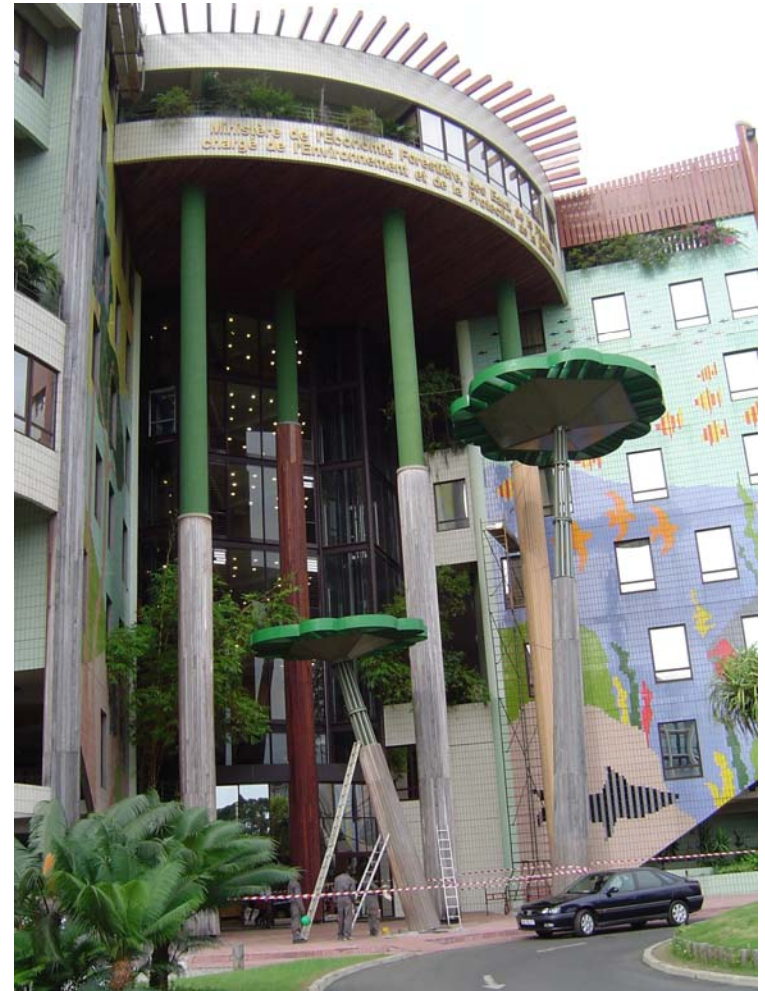
0 300 600 900 1200 Kilometers

Source: Laporte et Justice, 2000.

- An alternative solution would be to anticipate a likely “business as usual” deforestation rate on a future period
- Chomitz *et al.* (2007) suggest modeling land-use dynamics to calculate the baseline scenario
  - But they also pointed out a correlation between deforestation rate in the Amazon and beef price at farm gate. They also see a correlation with rainfall...
- A difference needs to be made between (quite) predictable variables (e.g. population growth) and guesses:
  - Who can predict often speculative prices for major agriculture commodities, such as soy, oil palm, beef....?
  - Who can predict the evolution of rainfall quantities and the risk of forest fires in the context of growing climate disorders?

# An overestimation of governments' roles and capacities?

- Many (most?) factors influencing deforestation rates are beyond the reach of the governments (i.e. cash crop commodities price changes, currency rates...)
- In a complex system, it is a challenge to measure the impact of given public actions in terms of how many hectares are (not) deforested
- If deforestation slows down, how do we disentangle the effect of public (or private) policies and the other factors which occurred independently of the government action?



*Ministry of Forests and Environment,  
Gabon*

## Measurement and imputation of various factors influencing deforestation: a framework for analysis

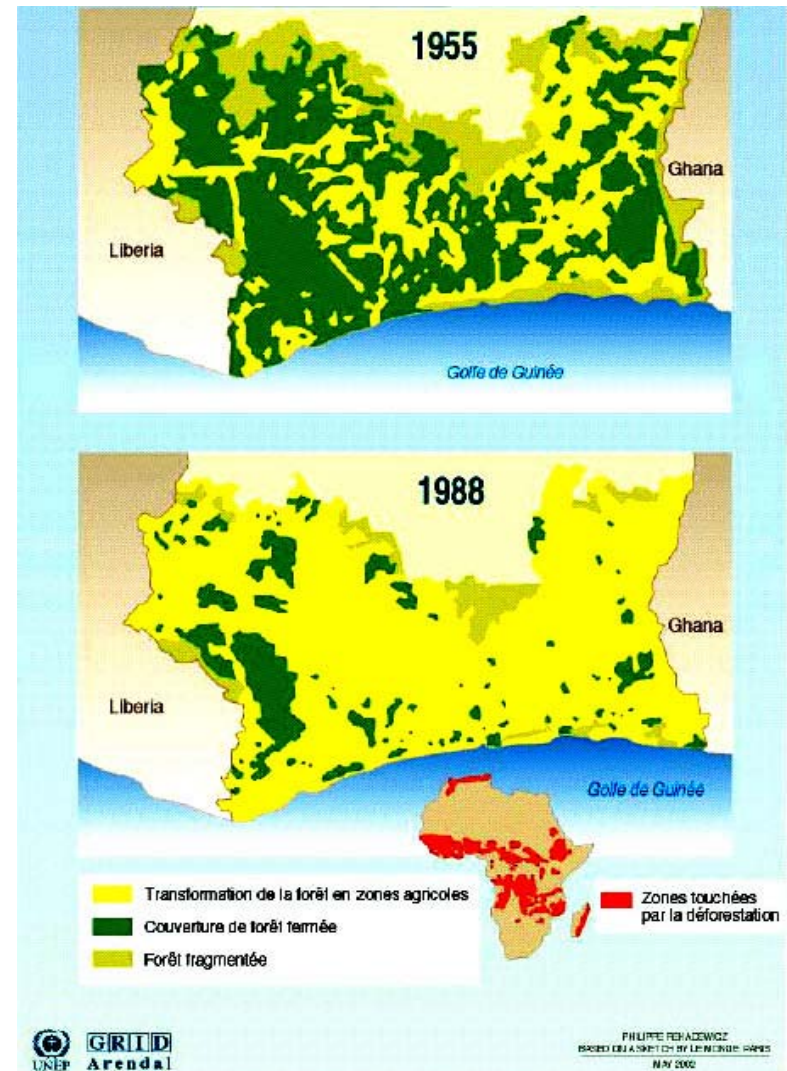
	Exogenous factors	Non intentional Endogenous factors	Intentional Endogenous factors	Private initiatives
<i>Type of measures</i>	<i>Examples:</i> Change in Agricultural commodity prices;  Extended climate disorders	<i>Examples:</i>  Modification of the interest rate;  Cut in fertilizer subsidies	<i>Examples:</i>  Stringent enforcement of land-use change laws	<i>Examples:</i>  Round table with soy producers to reduce forest conversion
<i>Possibility to impute deforestation reduction to public action</i>	Non imputable	Imputable	Imputable	Case-specific
<i>Possibility to quantify net impact on deforestation</i>	(N.A.)	Difficult / Very difficult	Possible	Case-specific

# Carbon credits or other financial incentives?

- From a “Kyoto-inside” perspective: fears that AD scheme might generate new huge quantities of “hot air” with a downward pressure on the price of emission permits
  - Recent report from CDM executive board suggests 20% of carbon credits are “non additional”...
- An alternative:
  - “De-couple” from Kyoto instruments: money instead of carbon credits through an international fund to tackle deforestation
  - Target, in priority, field actors instead of the Governments
  - Use a range of PES to favor changes in farmers’ productive practices and reward genuine conservation efforts (case-by-case assessment)
  - Working with governments to remove “perverse incentives” (inappropriate subsidies, fiscal systems...) and overcome structural threats, such as land tenure insecurity, weakness and corruption within controlling institutions and the justice...

# The case for an International Fund for tackling deforestation

- Seeing AD as an umbrella for local PES, not as an international PES...
- A Fund can provide the financial support for policies and reforms needed to curb deforestation
- Would need a mechanism to be abounded on sufficient and sustainable basis (taxes?)
- No more risk of “hot air”, but the additionality issue remains especially with the lowest opportunity cost areas



Past deforestation in Côte d'Ivoire

# Additionality v. Affordability

Opportunity  
Cost

SOY EXPANSION  
FRONT

Boundary will  
depend on  
financial means

Non affordable

“too costly”

Affordable

*Degraded forests*

CATTLE RANCHING

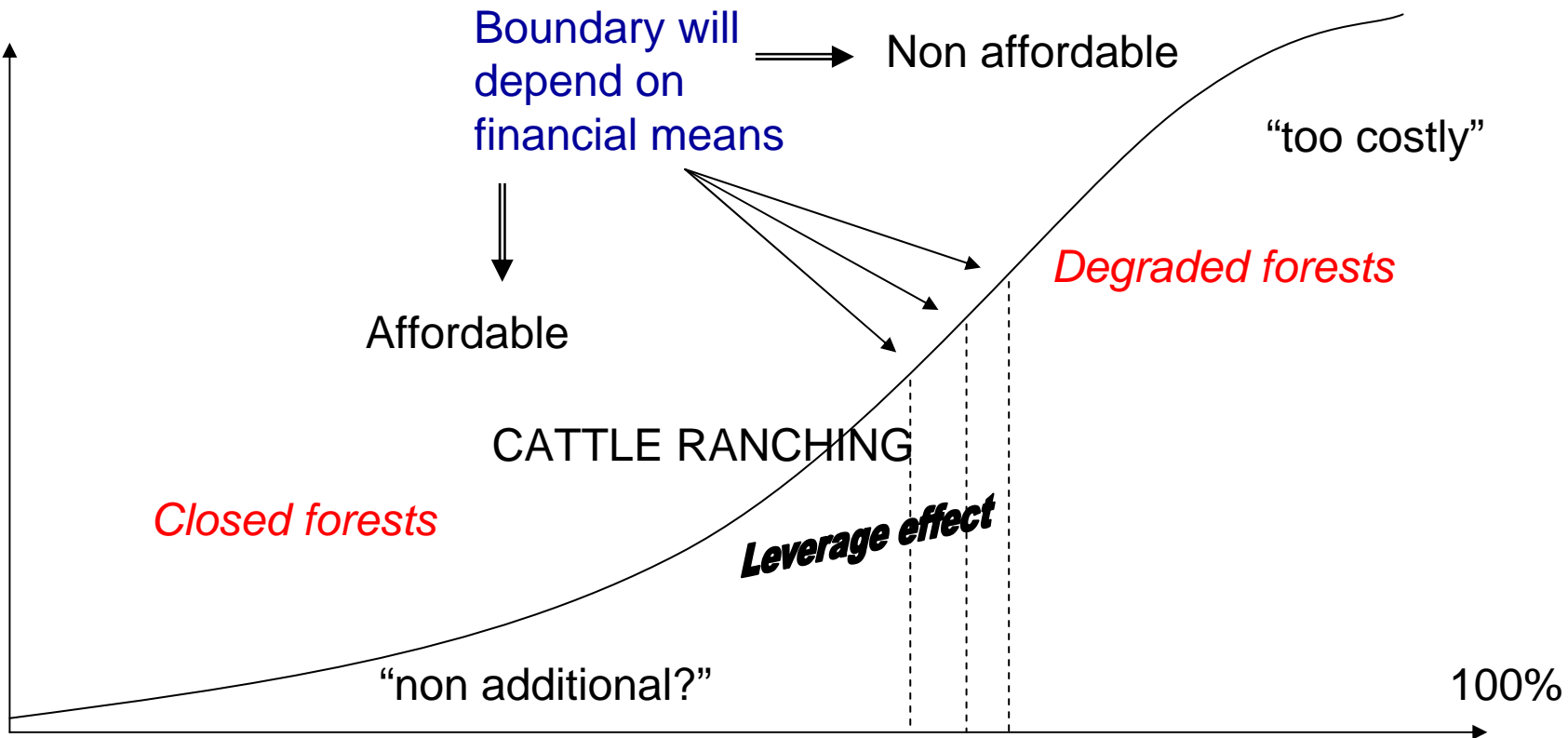
*Closed forests*

**Leverage effect**

“non additional?”

100%

*Proportion of non-deforestation  
or avoided deforestation*



# The “compensation” concept: toward a generalization of financial claims?

- The minimum condition for the success of any scheme is strong signals of political will to enforce the law:
  - Paying stakeholders for law observance is a contestable (and contested) principle which might incite law compliers to become non-compliers...
  - **The risk is to be told: “if you don’t pay me I will allow my forests to get cleared”**, making it difficult to concentrate payments only on “objectively threatened forests”
- Indonesia wants to be paid US\$5-\$20 per hectare not to destroy its remaining forests (Reuters, Oct. 8 2007)
- Minister of Environment of DR Congo : « *Nous acceptons de contribuer à l’équilibre du climat, mais nous exigeons 3 milliards de dollars pour tout ce que nos forêts apportent comme bien pour résorber le dioxyde de carbone dégagé par les pays industrialisés* » (Xinhua, Oct. 2, 2007).

# Economic efficiency and the responsibility principle

- Financial rewards (to governments) for standing forests **without regard for policies carried out** would be extremely costly and of doubtful effectiveness
- Environmental responsibility must not be a claim addressed to Northern countries only: **the other side of the coin of the** (uncontested) **sovereignty** (on forest resources) **should be the responsibility** vis-à-vis the forests as global environmental services providers
- Conditional rewards of genuine efforts of governments and local actors could be a more acceptable negotiation basis
- The ultimate condition is (still) the collective choices and collective/individual behaviors: forests are converted for feeding beef, producing biofuels, pulp... we are consuming more and more...