

Comparison of methods to derive reference levels for REDD

Forest Day 3 Learning Event
Measuring and monitoring, baselines and leakage
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Definition

- The UNFCCC SB 28 decision describes Reference Emissions Levels (REL) as follows:
“Means to establish reference emission levels, based on historical data, taking into account, inter alia, trends, starting dates and the length of the reference period, availability and reliability of historical data, and other specific national circumstances.”

Importance of RL

- Reference emission levels (ideally) determine the scale and duration of emissions occurring without REDD activities → to determine ambition of REDD measures
- shape the environmental and economic performance for REDD, but also influence the willingness of parties to join such mechanism

RL options (1)

- Historical baseline (retrospective):
 - Method: historical extrapolation of forest cover data (RS; e.g. Landsat)
 - Based on: Santilli et al (2005): Compensated conservation
 - Examples: Brazil, Indonesia

RL options (2)

- Projected baseline (prospective):
 - Method: historical forest cover data and assumption of future driver development combined
 - Based on: Soares-Filho et al (2006, SimAmazonia); Brown et al (2006, GEOMOD), etc...
 - Examples: State of Amazonia, Noel Kempff Climate Action project in Bolivia

RL options (3)

- Historical adjusted baseline (hybrid)
 - Method: putting national (historical extrapolated) baselines in relation (to a global baseline / remaining forest cover)
 - Based on: Mollicone et al (2007), Strassburg et al (2009)
 - Examples: COMIFAC, (CfRN)

National adjustment

- Historical REL+ individual accounting of national circumstances / development adjustment factor
- Adjustment based on :
 - Remaining usable forest area?
 - Socio-economic indicators?
 - Forest trajectories?
 - Negotiation → Danger of „Political bargaining“

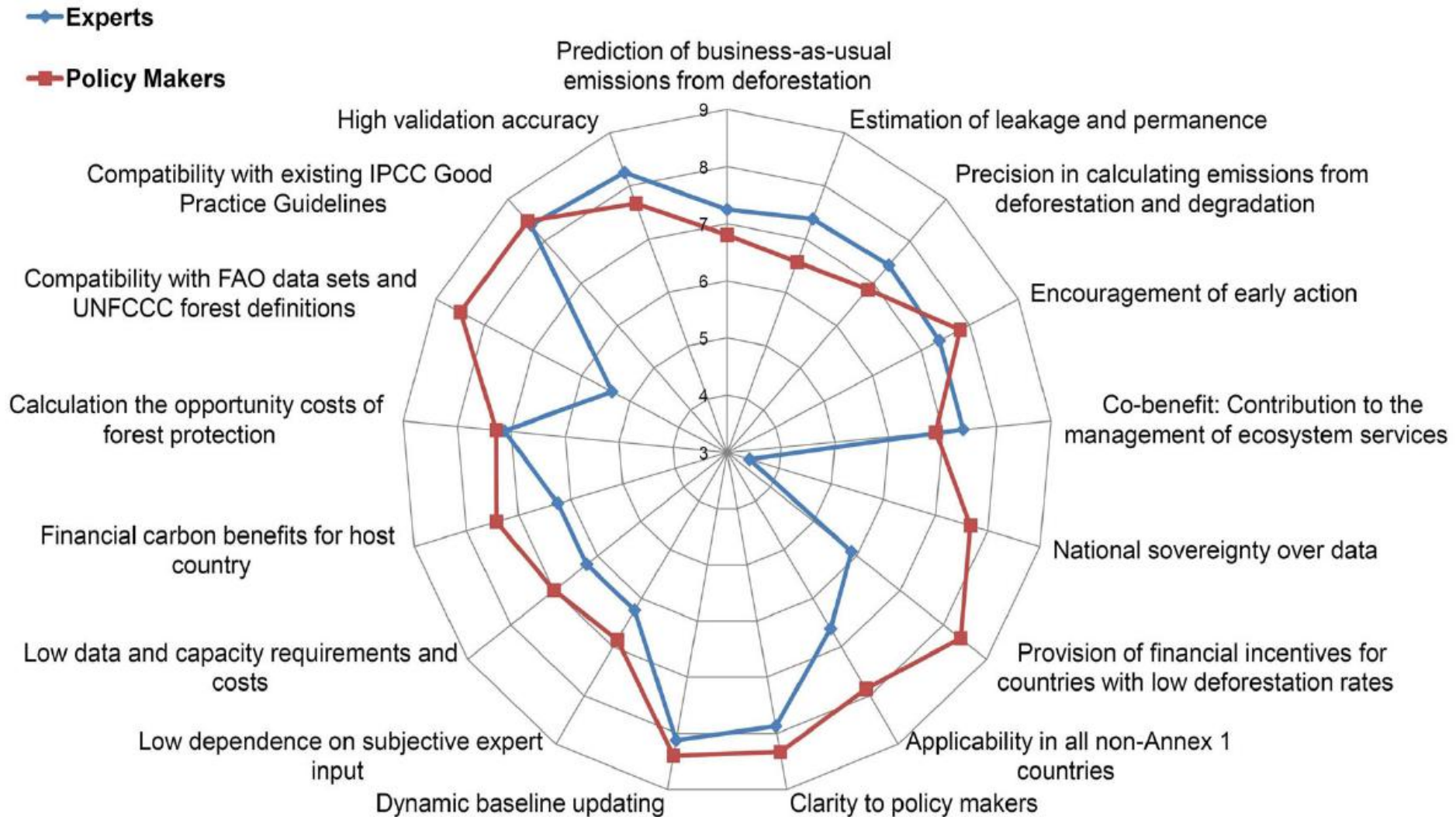
Role of drivers in setting REDD baselines

- Historical deforestation pathways have very limited predictive power - [Example](#)
- Additionality – an issue for REDD?
- Hot air threat: Forest transition (Costa Rica)
- Underfinancing threat: Land-use increase (Congo basin states)
- Irreducible complexity of subjective drivers (policy decisions, oil price, security, etc.)

Main RL requirements

- Environmentally effective: Additionality of emission reductions
- Practically applicable: flexible and robust for different country situations
- Transparent and politically fair
- Economically attractive
- Adaptive: reviewed and adjusted over time

Indicator importance rating



Thank you for your attention

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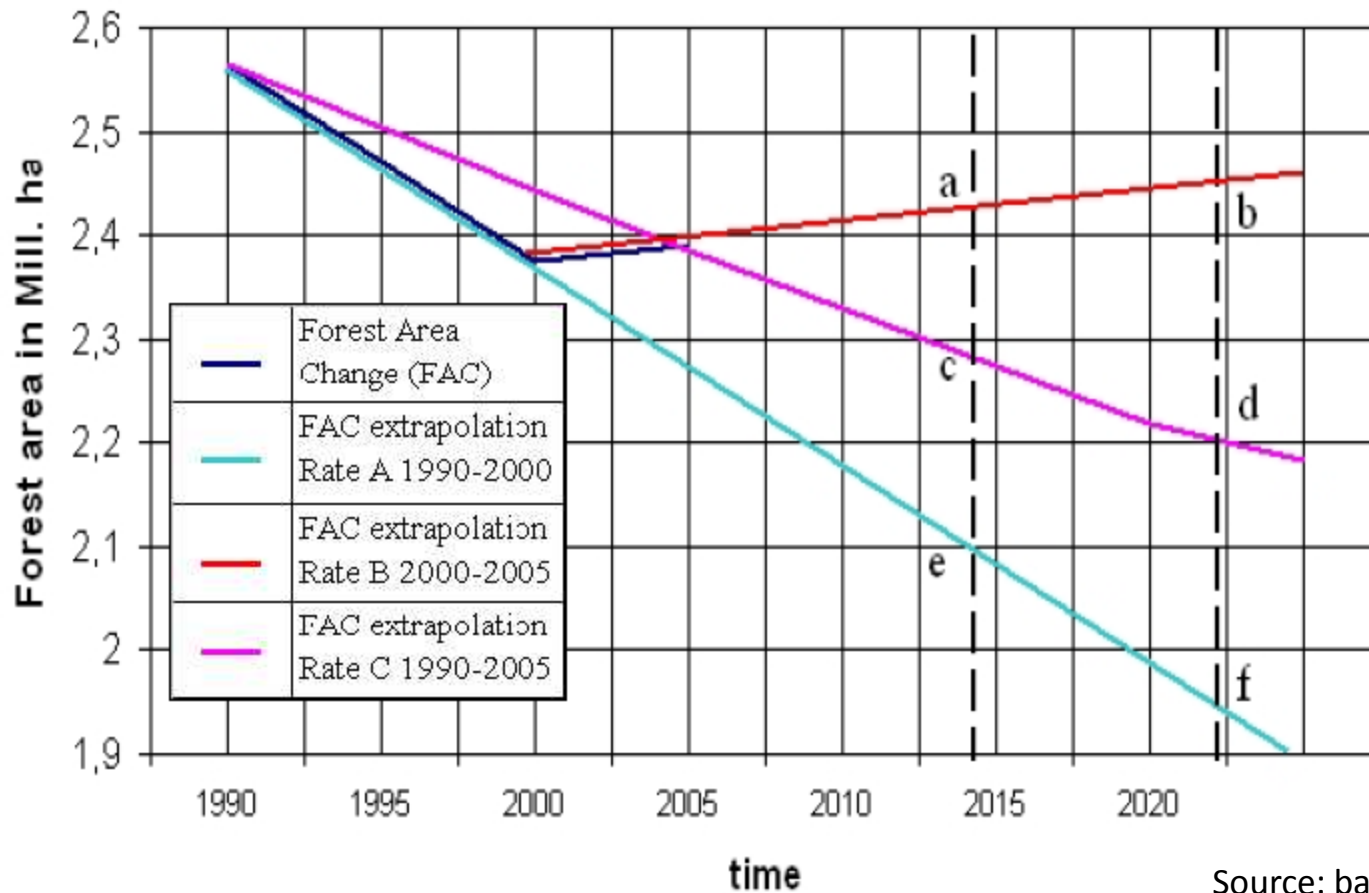


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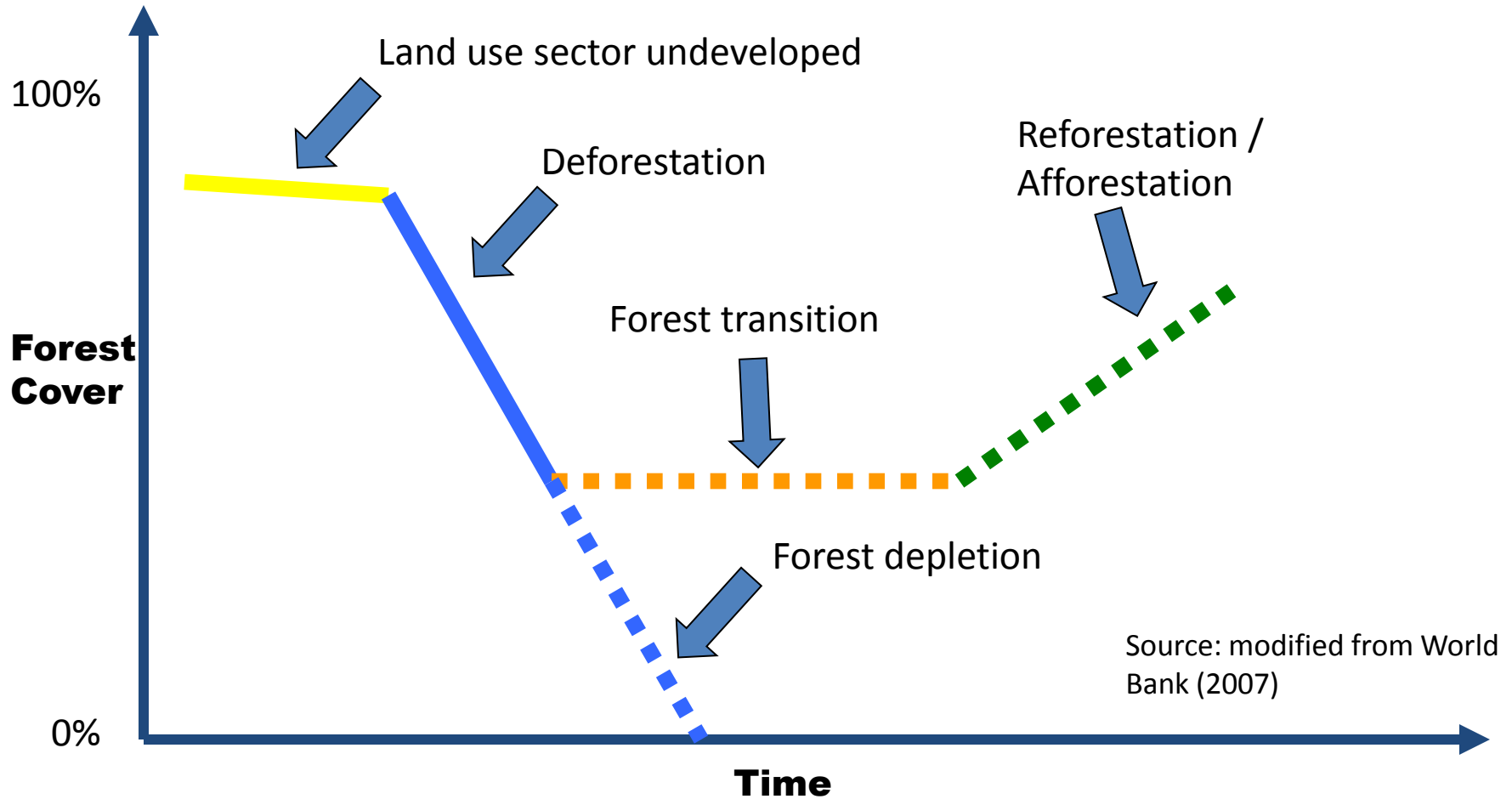
Example

- Extrapolated forest area change in Costa Rica



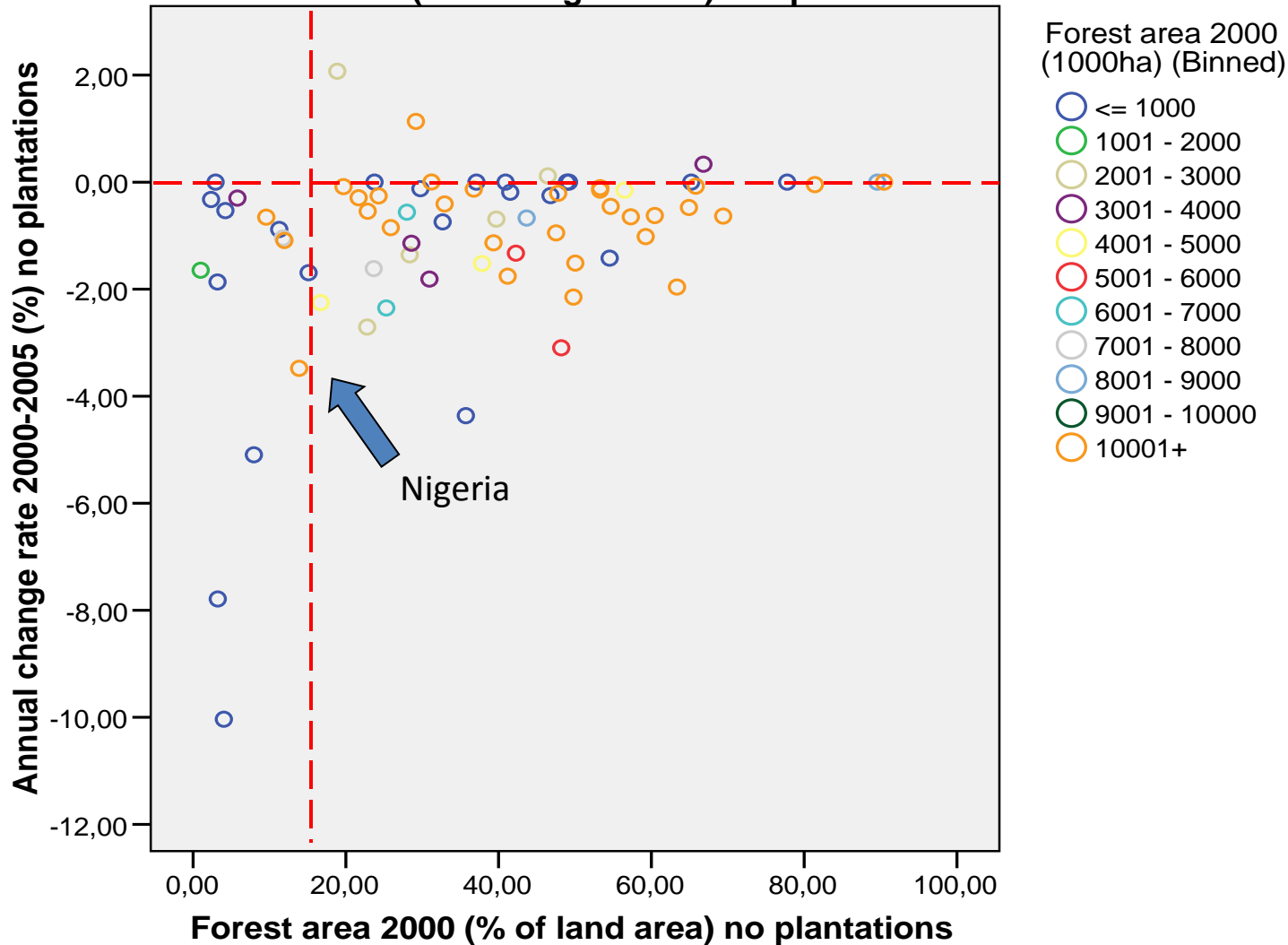
Source: based on FAO
FRA 2005

Trends in deforestation



Deforestation rates 2000-2005 against relative forest cover in 2000

Climate (according to FAO): Tropical countries



Source: FAO FRA (2005)