

Methodological issues related to compensated reduction of deforestation



GOFC-GOLD workshop on monitoring tropical deforestation for compensated reductions

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Outline

- DDD-emissions vs. fossil fuel emissions
- Necessary features of successful strategies
- Three methodological challenges
 1. Ex-ante methodological issues
 2. Estimation over time
 3. Accounting, based on results of 1 and 2.
- Bottom-up vs. top down approaches
- Conclusions

LULUCF in the Kyoto Protocol

- Targets were set before LULUCF was agreed
- Art 3.3: ARD (gross-net; **D: net-net for some parties**)
- Art 3.4
 - Revegetation (net-net)
 - Forest management (gross-net, cap)
 - Cropland / Grazing Land management (net-net)
- Art. 6, 12: Project-based mechanisms (cap on CDM AR)
- Fuelwood in CDM: efficient kerosene/LPG as baseline!

LULUCF activities that are "in": *slow in / fast out*, little impact

How are emissions from DDD different than emissions from fossil fuels?

- Saturation
 - For DDD: could run out of lands
- Permanence
 - Less DDD now could lead to more DDD later
- Degree of control
 - Greater inter-annual variability
 - Large areas

Necessary features of strategies to meet climate objectives

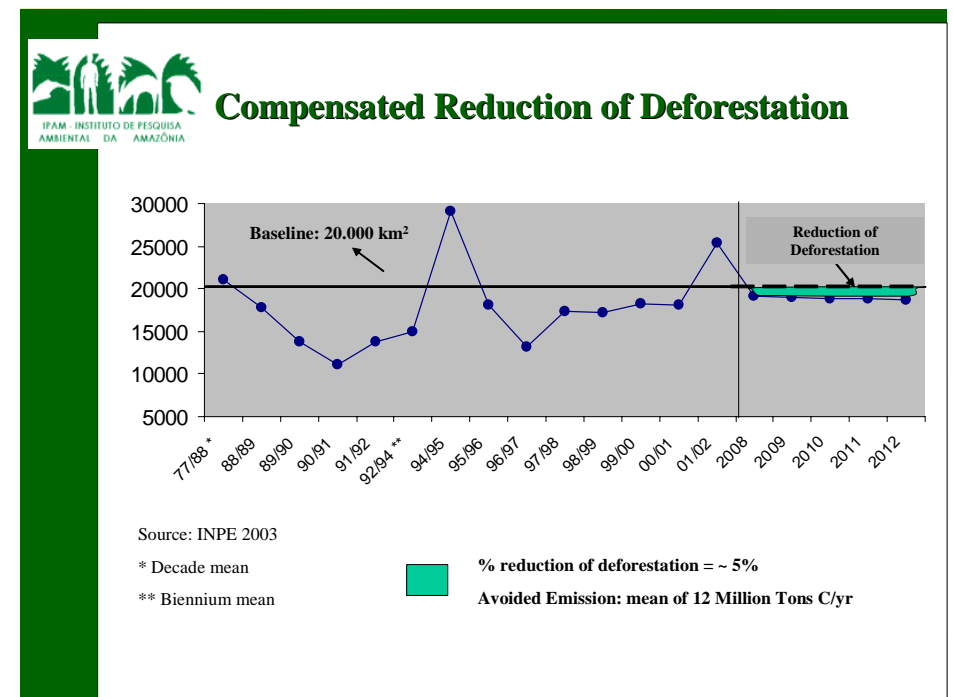
- Promote participation by countries
- Incentives for improvements within countries
- Completeness over time and space
- Practicality

Three methodological challenges for quantitative approaches to address D

1. "Ex-ante" methodological issues
 - Historical emissions
 - Reference emissions level / baseline / target
2. Estimation over time
3. Accounting, based on 1. and 2.
 - Permanence
 - Incentives (early crediting)

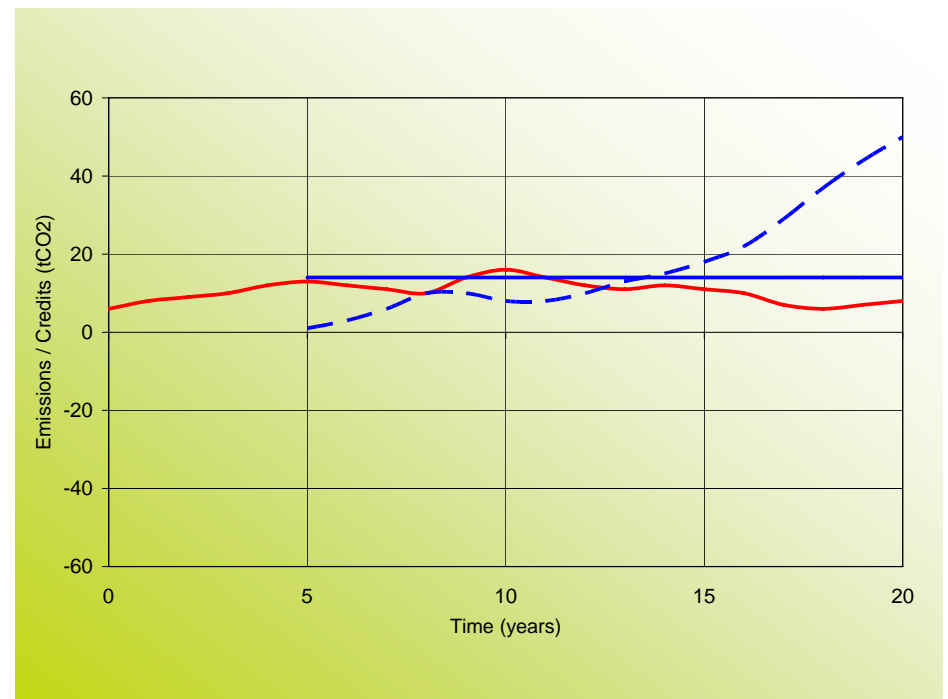
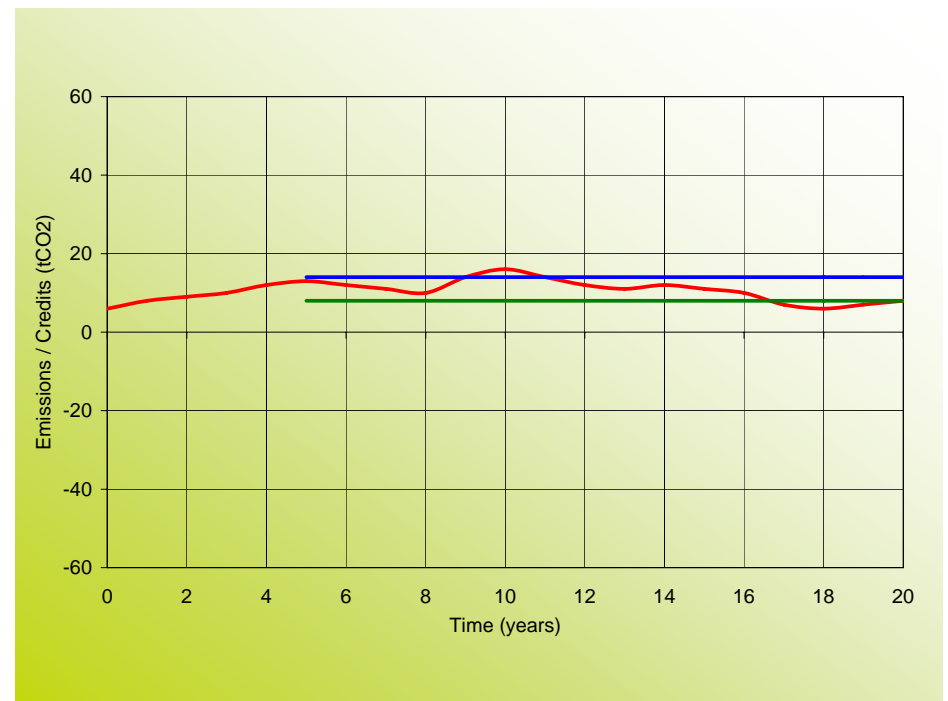
1. Reference emissions level / Baseline / target

- Ambitious target: participation?
- Weak target: Windfall credits?
- Penalties for emissions above cap? (if not: run-away non compliance possible)

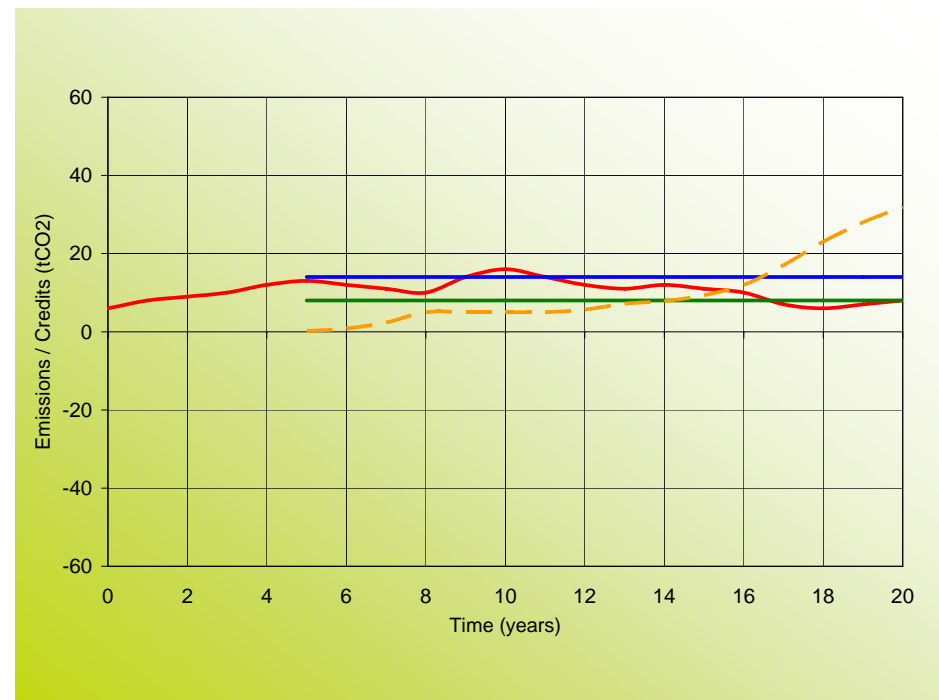
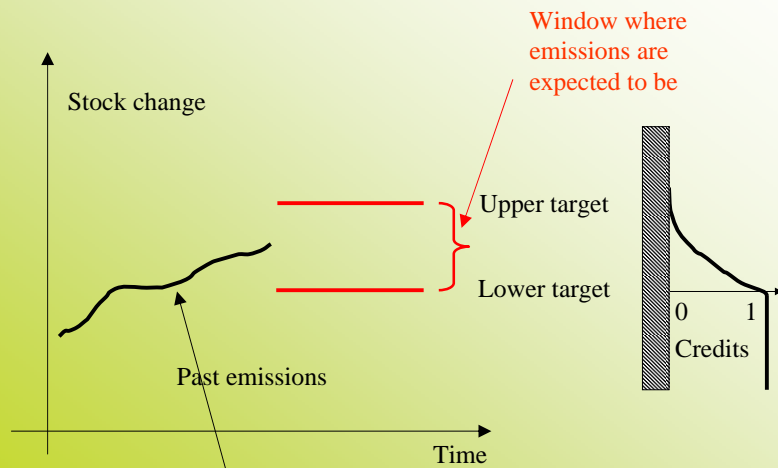


Kyoto Protocol Article 3.7 (last sentence)

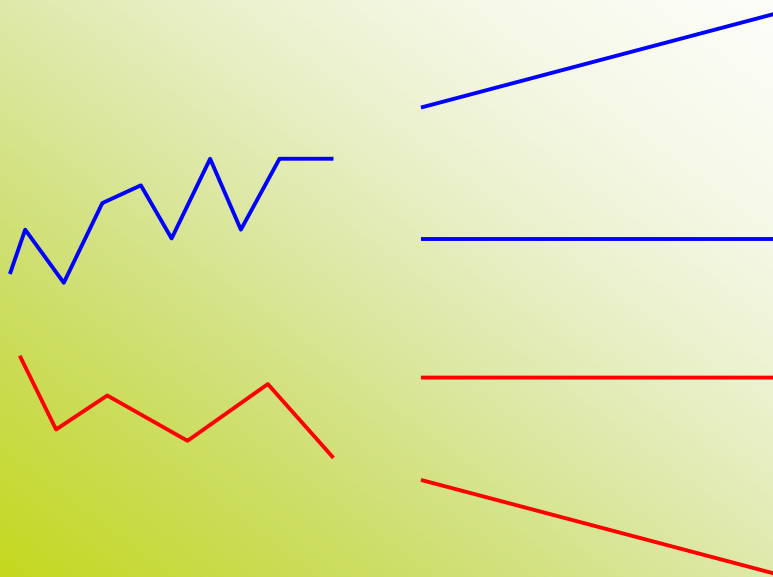
- Those Annex I parties ... (trigger) ... shall include in their 1990 emissions base year or period the aggregate anthropogenic CO₂e emissions by sources minus removals by sinks **in 1990** from [deforestation] for the purposes of calculating their assigned amount.
- Should have applied to all parties
- Percentage emissions of base period possible (similar to Kyoto targets)
 - Should consider trends
- Base-year not ideal, should be a longer period



How to set a target (not necessarily baseline)?



Corridor could have many forms



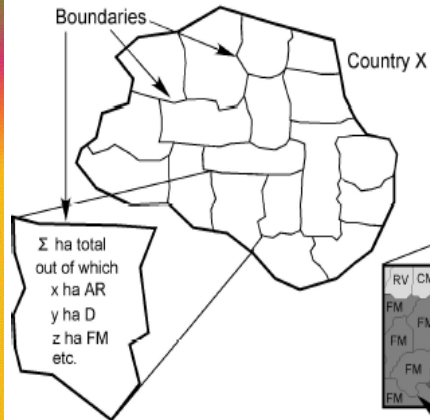
2. Estimation over time

- Estimating (monitoring, modelling, defaults etc, IPCC) → reporting (CRFs) → accounting (KP)
- IPCC GPG 2003 for LULUCF:
 - STEP 1. Make national choices (definitions, other choices that may exist)
 - STEP 2. Identify lands subject to DDD (triggers the accounting in step 3) – ACTIVITY DATA
 - STEP 3. Estimate C stock changes and non-CO₂ GHGs for lands identified in Step 2 – EMISSION FACTORS
- IPCC 2006 AFOLU Guidelines forthcoming

Two Reporting Methods for Land Subject to Articles 3.3 and 3.4 Activities

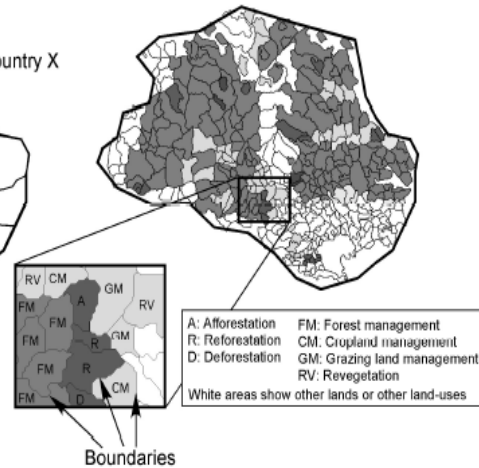
Reporting Method 1

A geographic boundary encompasses units of land or land subject to multiple activities.



Reporting Method 2

A geographic boundary encompasses units of land or land only subject to a single activity.



Other monitoring related challenges

- Distinguish short-term cycles from permanent land-use changes (e.g., harvest vs. deforestation)
- Estimate pre-DDD C stocks
- Include other GHGs (e.g. fire related)
- Could only trade with reviewed inventory?
- Track 1 (national) vs track 2 (projects) like JI?

Bottom-up approach

- Broadly defined international rules
 - Allow deforestation, forest degradation (JRC proposal) and revegetation
 - Either project-level with leakage assessment or national w/o leakage but reviewed inventory
 - Methodologies proposed by countries / experts, evaluated by a UNFCCC panel
 - Flexibility in choosing forest def and other thresholds
 - Flexibility in selecting base period (like EITs in Kyoto I)
 - Another option: full C accounting like in Annex I, to consider forest regeneration
- Top-down approach like Kyoto I may not be feasible
 - E.g., differing populat. growth overlooked in KP targets

Conclusions

- Flexibility, menu of options
- Early crediting (prompt start like CDM)
- Fixed "no regret" targets problematic (incentives lost in case of overshooting)
- Use a corridor-approach?
- Only bottom-up may lead to broad participation
- Capacity building critical

Reducing Emissions from Deforestation in Developing Countries

A workshop to discuss methodological and policy issues

Bad Blumau / Austria
10-12 May 2006

