Reducing emissions from deforestation

Methodological Issues

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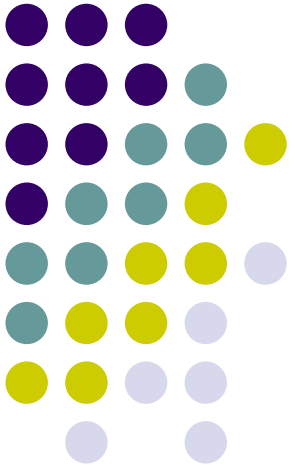
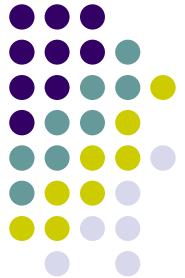
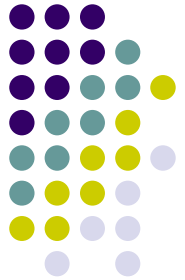


Overview of Topics



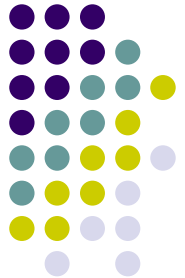
1. Definitional issues
   Q: Address avoided deforestation alone?
2. Baseline setting
3. Data needs and availability
4. Leakage
5. Permanence
6. Factoring out
7. Pilot studies
8. Recommendations

General notes



- BOG charge: to asses the methodological implications of reducing emissions from deforestation in developing countries (RED)
- Each issue may need to be evaluated in view of two potential conditions:
  - Under the Convention regime
  - Under an unspecified eventual trading system

1. Definitional Issues



- *Deforestation*: the eligibility may follow the decision tree proposed in the IPCC GPG
- Suggest the concept of RED to include degradation (REDD)
- *Forest* definition may be established at country level within the following continuum:

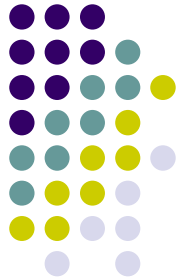
  low biomass ---------- high biomass

  strict REDD ---------- full accounting (LUCF sector)

- *Devegetation:* needed in full accounting option

➢ These terms should not be confused with the specific terms used in the KP, CDM, IPCC GPG etc.

2. Baseline setting

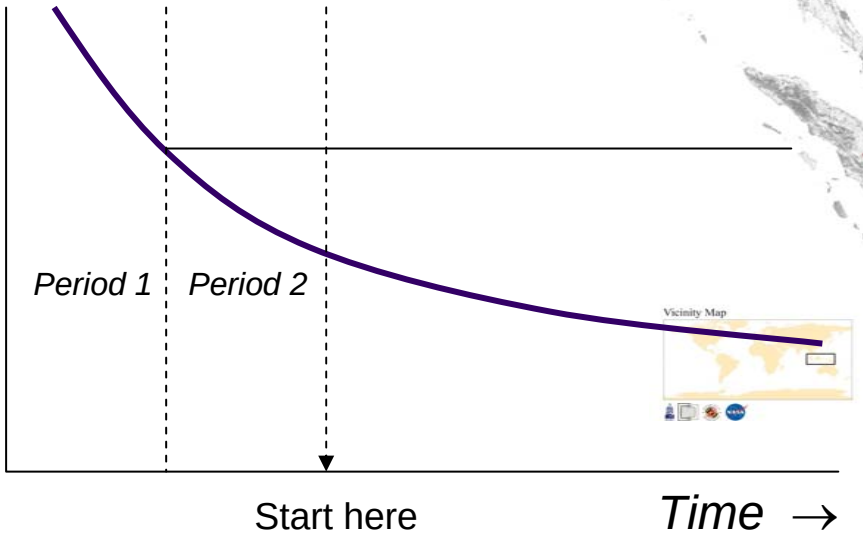


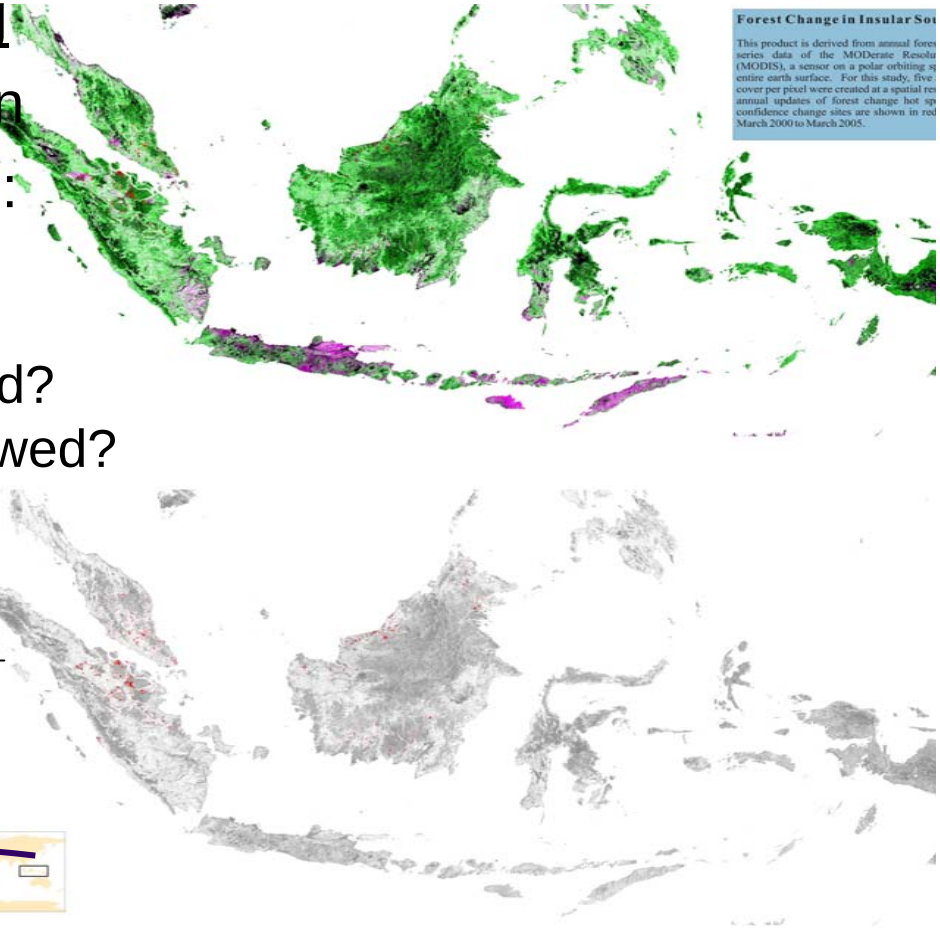
- Decisions on how REDD is defined has significant implications for baseline setting. Deforestation and Degradation may have different approaches
- Two potential approaches to baseline setting:
  - Mandate and review: common and consistent rules
    - Statistical approach: e.g, a rolling average of past emissions, trend analysis
    - Modeling approach: use of standardized modeling tools recognizing economic, policy, geographic and other drivers
  - Propose and review: specific, country-based, to be proposed by country and approved by designated body under the Convention or trading regime

2. Baseline setting (contd.)

Options for base period setting

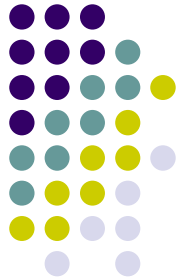
- Base year is not a viable option
- Decisions need to be made on:
  - How long is the base period?
  - When does it start?
  - How long is it projected forward?
  - When does it need to be reviewed?





MODIS Analysis to Identify "Hotspots" Forest Change in Insular Southeast Asia 2000 – 2004 (Hanson, 2005)

2. Baseline setting (contd.)



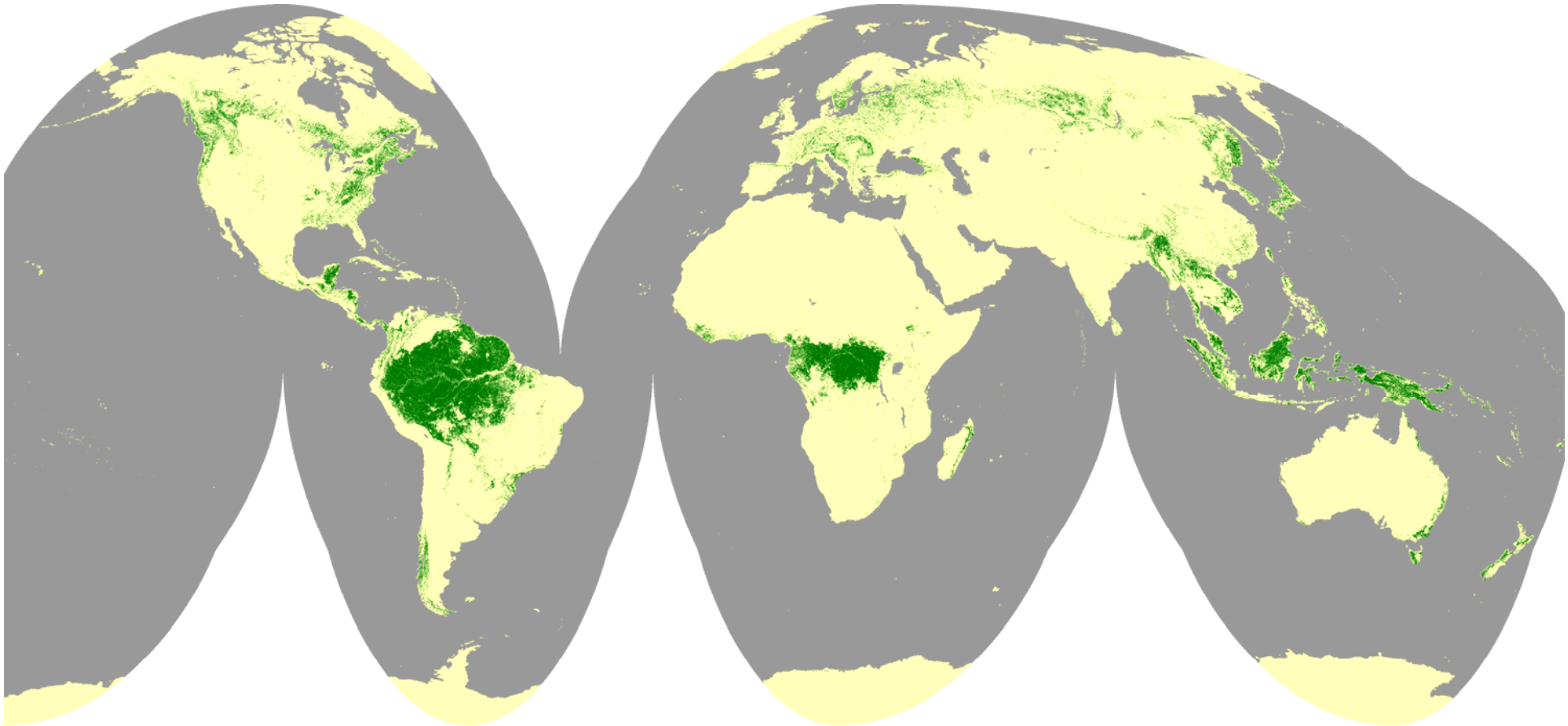
Scale of baseline

- National is assumed to be the default. If so:
  - Leakage is limited to international
- If in some circumstances sub-national activities are considered, the baseline will:
  - Require strong policy measures
  - Have to consider internal leakage

➢ Project-based in key areas?

➢ National govt. still reports/liable

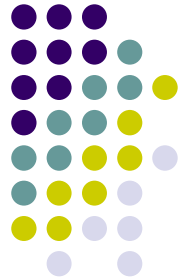
3. Data needs and availability



3. Data needs and availability

- Data must be relevant and available to assess drivers
- Uncertainties have to be considered in all data processing steps and in the modeling exercises (LUCF, biomass, economic)
- Remote sensing data from the 1990's to present – both wall-to-wall detection and stratified sampling are options
- Both top down, single global coverage and bottom-up, national or regionally specific analysis are possible
- Data generation and processing need collaboration between developed and developing countries

4. Leakage



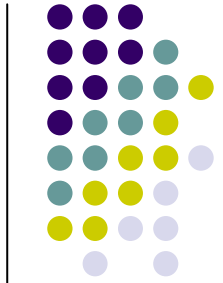
National Level

- National level accounting for forest emissions will capture internal leakage if degradation is included.
- If sub-national accounting is used, accounting for leakage is important

International Level

- Potential leakage between countries may be high for specific emission drivers, such as timber harvest
- However, international leakage is not accounted in Annex I accounting for LUCF or other sectors

5. Permanence

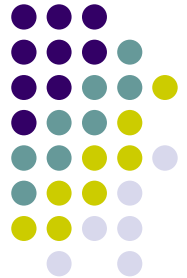


Two general classes of REDD

- Temporary maintenance of stocks
  - Temporary stocks may be dealt with through policy approaches parallel to CDM A/R
- Permanent maintenance of stocks
  - Permanent avoidance is feasible under specific conditions (*e.g* expanded national parks with proofed additionality)
  - Risk banking scheme

➢ Market is likely to sort and reward temporary and permanent REDD differently

6. Factoring out



- To separate anthropogenic vs. non-anthropogenic effects on C-stock changes (*e.g* N and CO_2 fert.)
- Issues may be different for natural and managed forest ecosystems/biomes
- Evaluate if anthropogenic disturbance was the cause of permanent deforestation
- May only be feasible for pure REDD case and not for degradation of C-stocks
- Natural fires, pest and diseases disturbances are particularly complex
- Science on factoring out is still evolving

7. Pilot studies

Potential Criteria

- National scale, to test REDD concept
- Existing remote sensing, biomass, economic, spatial data in place
- Nested analysis/integrated assessment of REDD concept
- Objective assessment of uncertainties

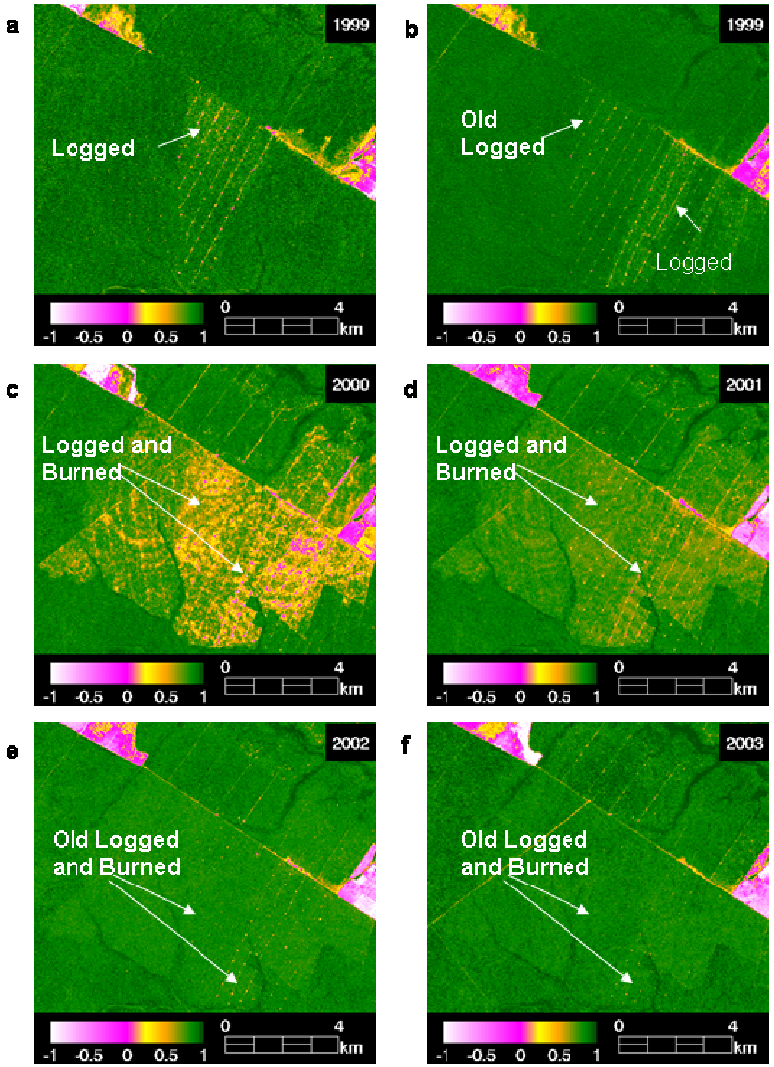
Initial thoughts on potential pilot studies

- Kickoff multidisciplinary workshop representing forester, RS, econ, modeling and policy communities
- Assess potential for financial/technical support (ESA?, GEOMOD? Brazil time series data? others?)
- Ideally, a case in each region and major deforestation driver(s)
  - Asia: logging, agriculture (Indonesia)
  - Africa: biofuel, logging (sub-Saharan, Congo basin)
  - Latin America: agriculture (Belize, Brazil, Bolivia)

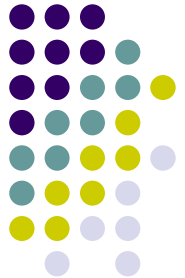
7. Pilot studies (contd.)

Test cases regarding

- Baseline settings
- Leakage (domestic, international?)
- Availability of data for monitoring
- How $ moves (liability)
- Cost/benefit of setting baselines and including degradation
- Permanence
- Capacity requirements in different conditions of infrastructure
- Cooperation among different disciplines



8. Recommendations



- Finding: the issue is complex, but there are many existing tools to build on
- Do pilot studies
- Early workshop to foster process which initiates international cooperation
- Assess current capacities and identify capacity building requirements
- Urge countries to build historical databases
- Do C/B analysis where carbon finance generated by REDD could make a difference (*e.g* high risk of deforestation, low risk of cash crop production, lower opportunity cost of forest conservation)