UNFCCC WORKSHOP ON REDUCING EMISSIONS FROM DEFORESTATION IN DEVELOPING COUNTRIES

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Data availability and quality
Scale and rates of deforestation

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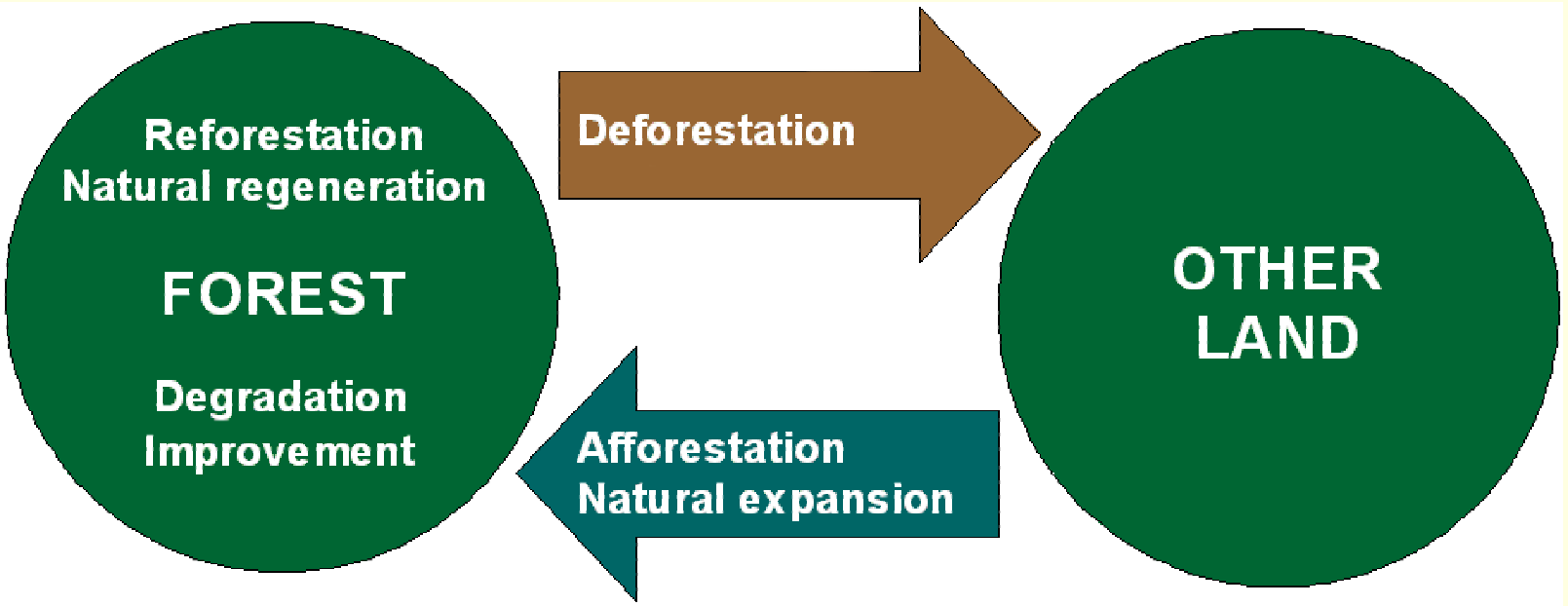
Contents

1. Basic concepts
2. Scale and rates of deforestation
3. Data availability and quality
4. Conclusions
5. Prospects

1. Basic concepts

Forest change processes



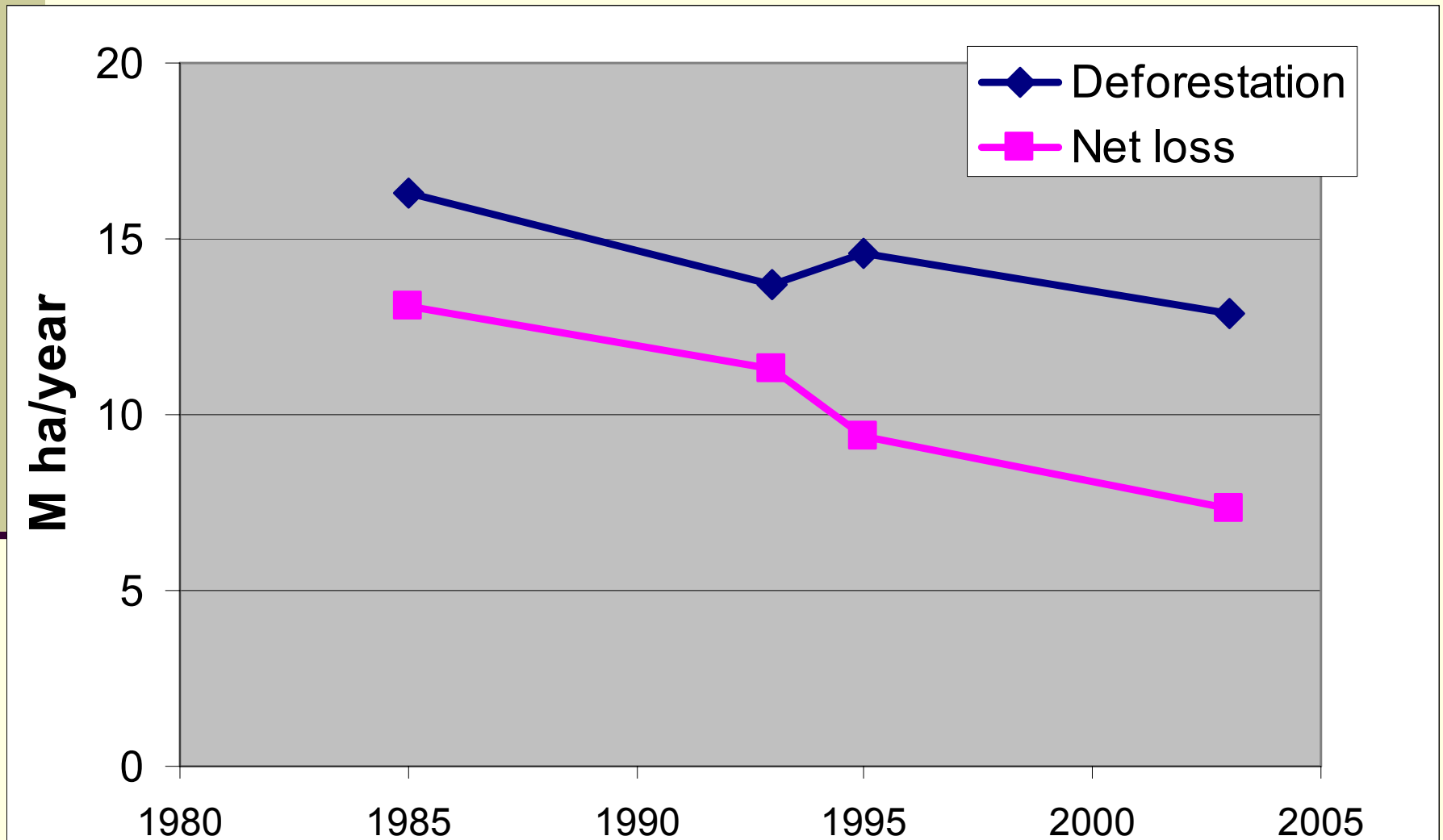
Focus of this presentation

- Deforestation
  - Conversion of Forest to Non-forest
  - Usually to Agricultural use
  - Offset by expansions of forests elsewhere
- “Forest degradation”
  - Proxy = Carbon stock (per hectare)
  - Biodiversity or Productivity or other functions not considered

2. Scale and rates of deforestation

- From the FAO-led Global Forest Resources Assessment
- Global FRA's since 1946
- Deforestation since FRA 1980.
- Based on Country Reports
- Supplemented by remote sensing surveys

FRA estimates of global Deforestation and Net loss of forest area



Global Forest Resources Assessment 2005

Progress towards sustainable forest management

FAO FORESTRY PAPER

147

40

VARIABLES

229

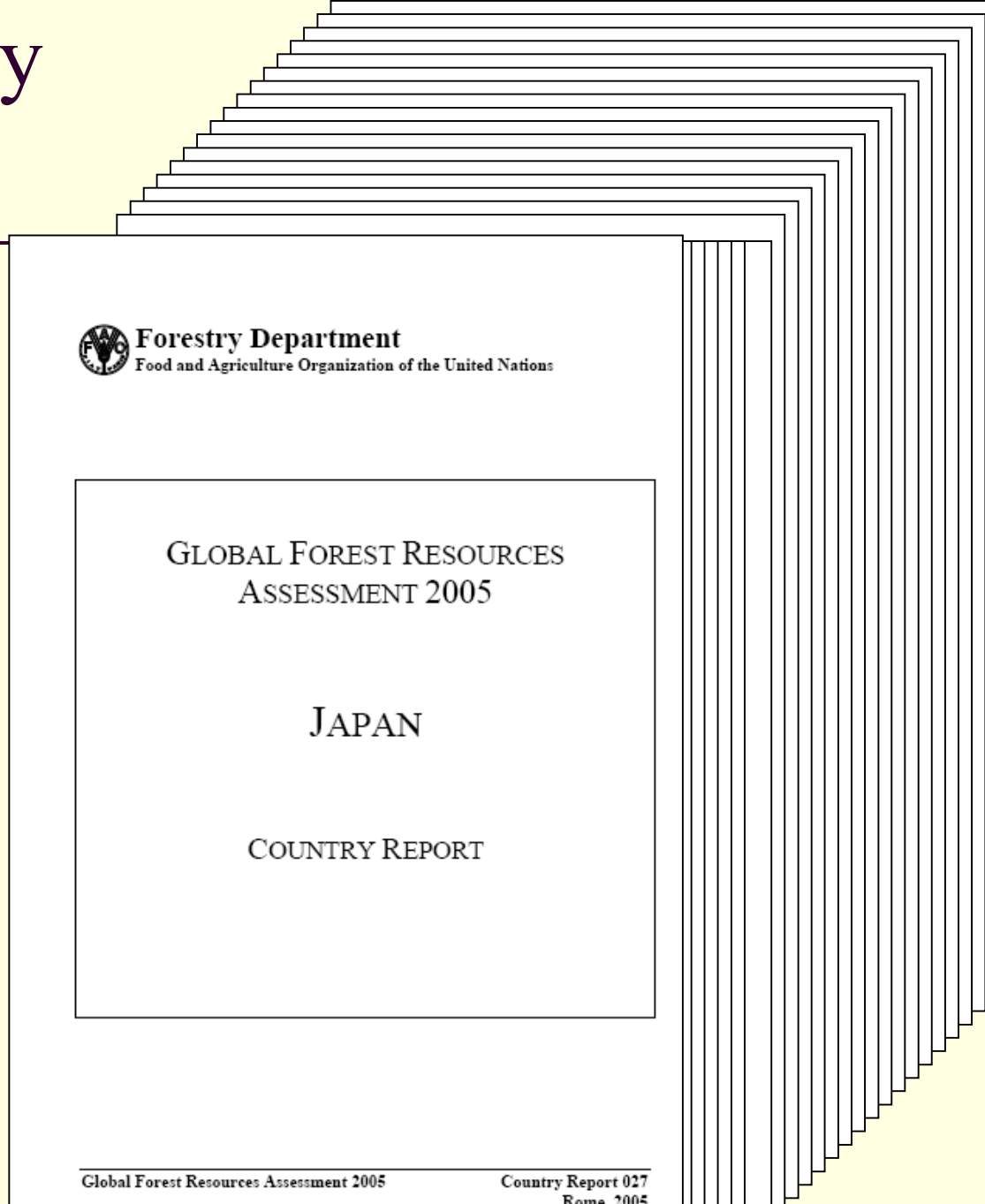
COUNTRIES AND TERRITORIES

1990

2000

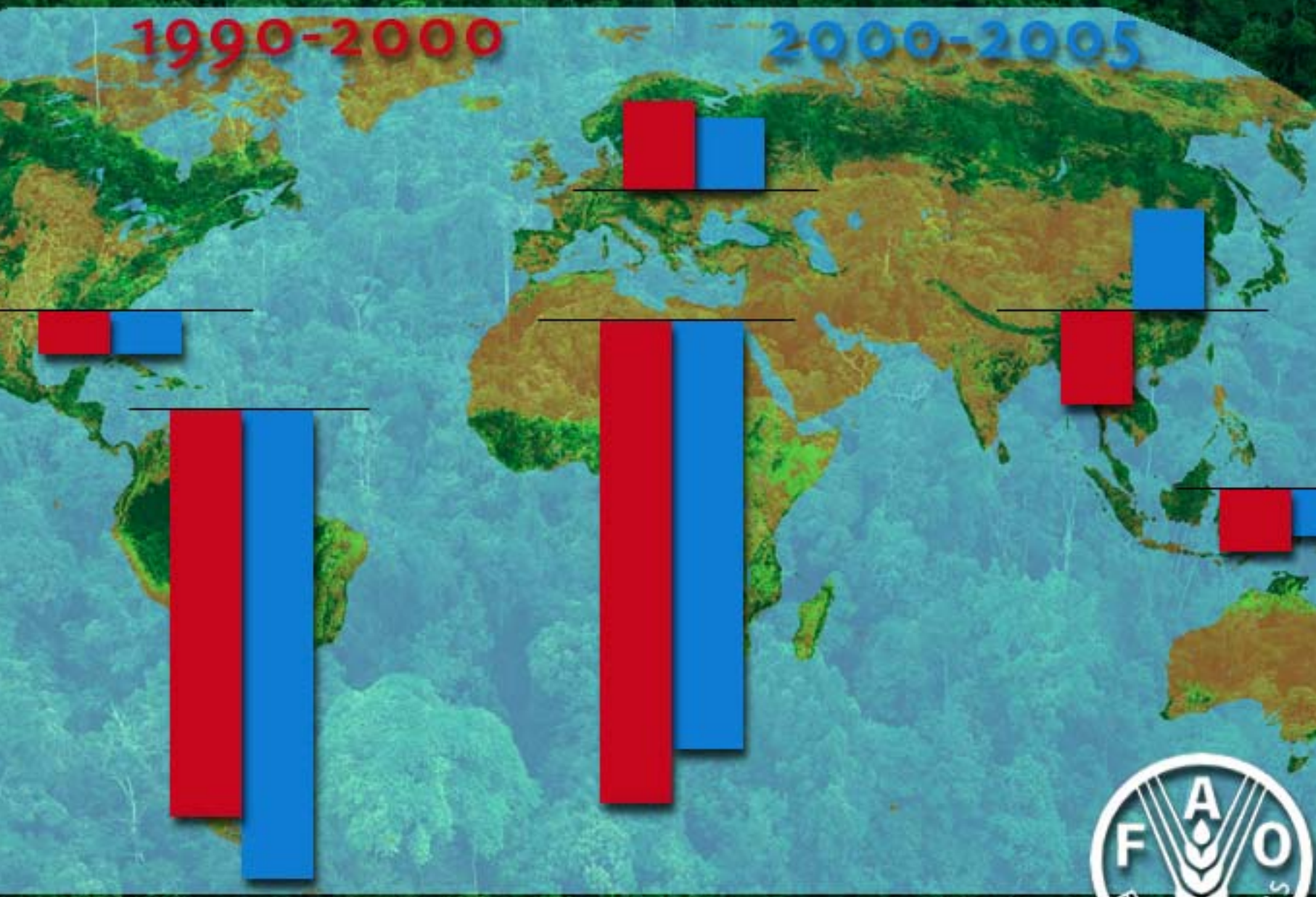
2005

229 country reports

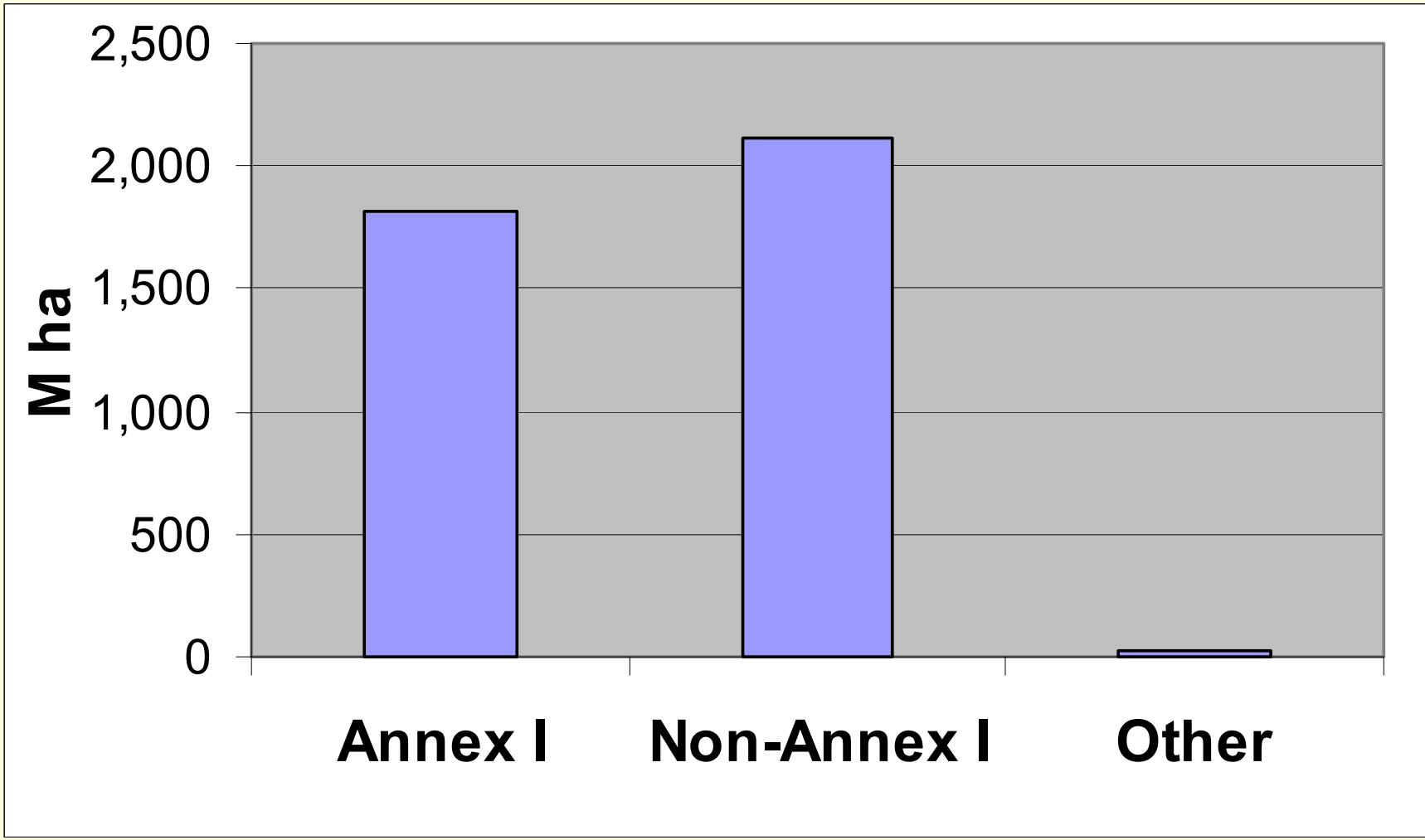



CHANGE IN FOREST AREA 1990-2005
DEFORESTATION 13 million ha/yr
NET FOREST LOSS
1990-2000 8.9 million ha/yr
2000-2005 7.3 million ha/yr
200 KM² PER DAY

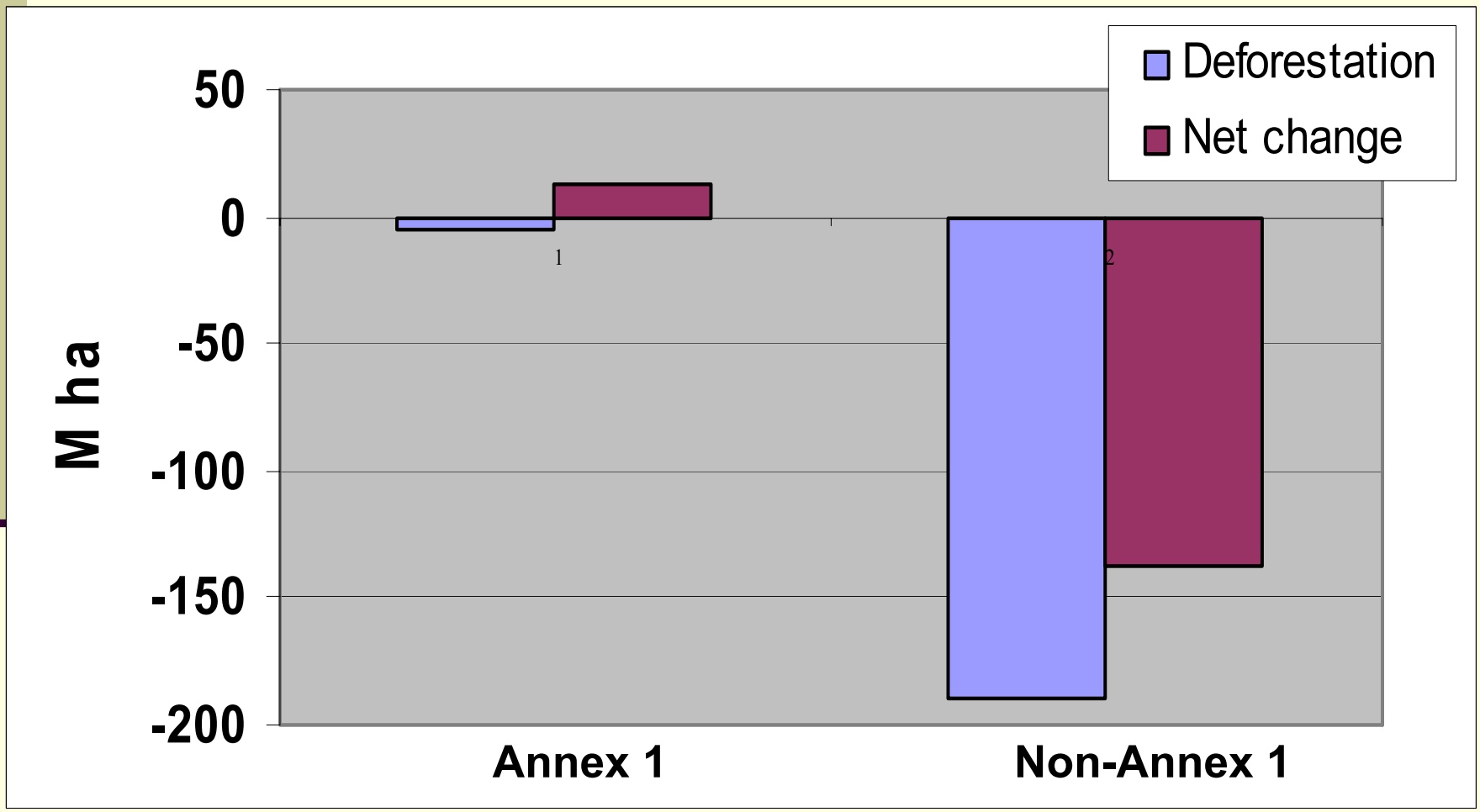
ANNUAL NET CHANGE IN FOREST AREA



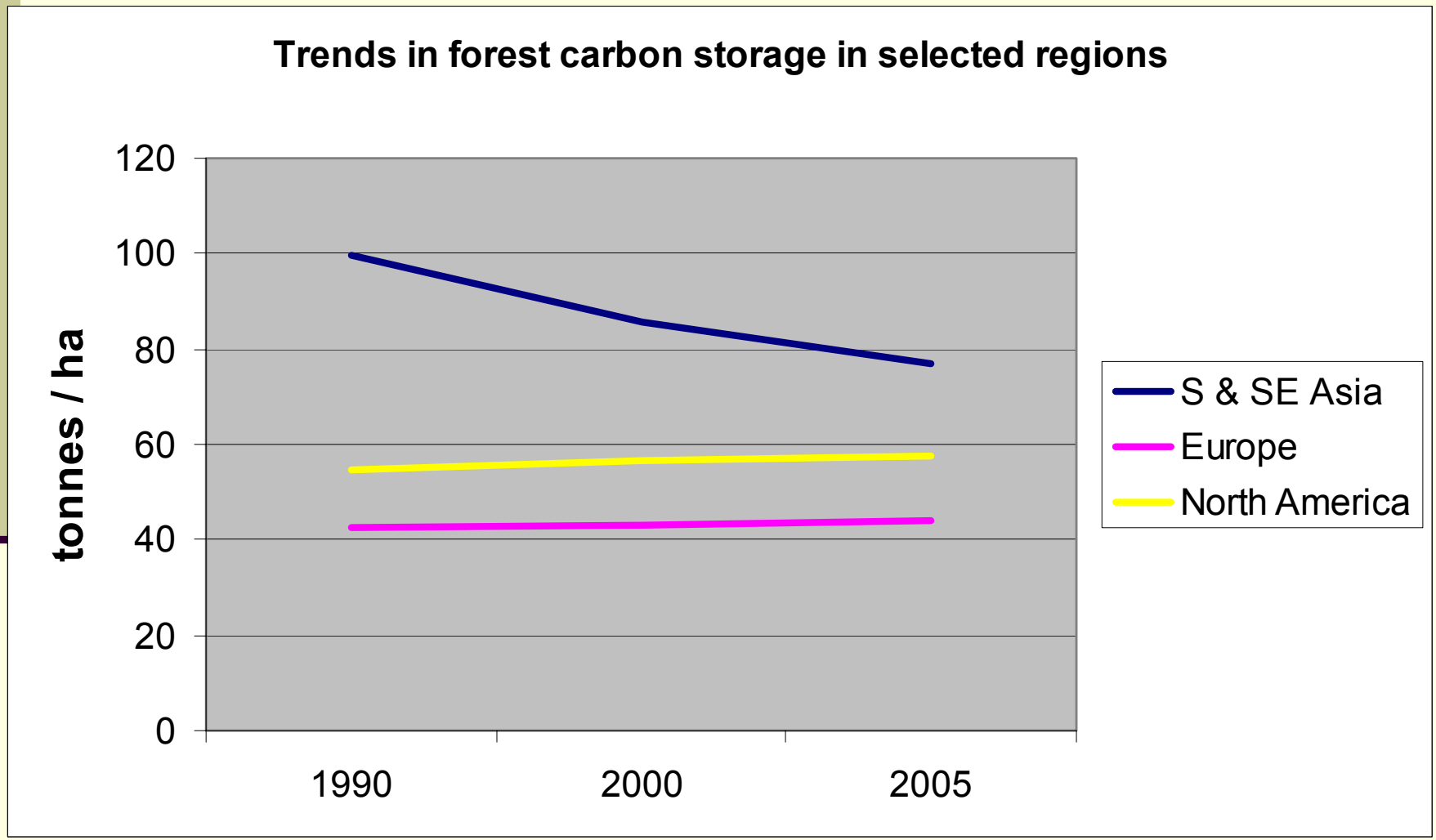
Forest area in 2005



Deforestation / Net change 1990-2005



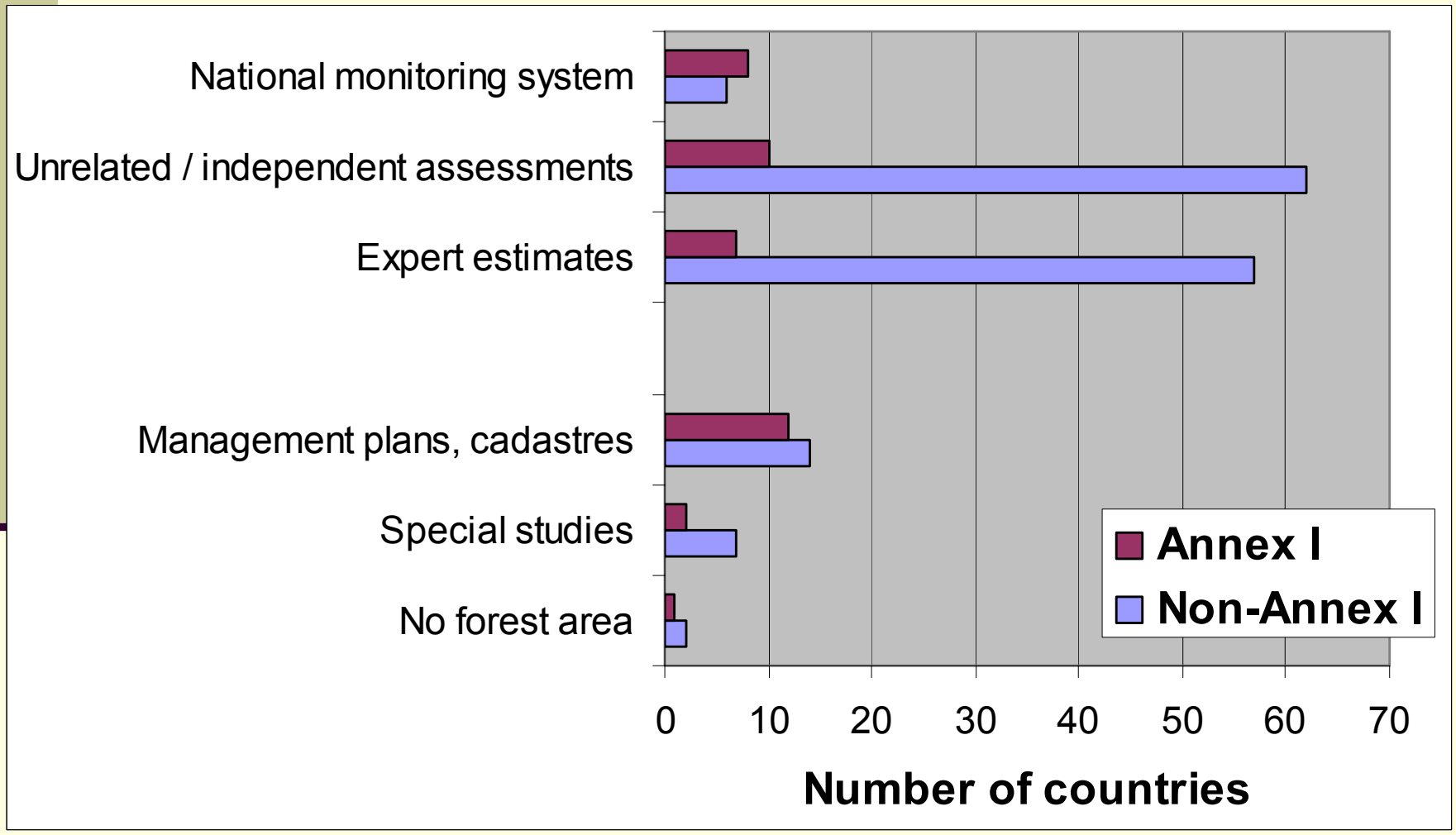
Limited data on carbon stock trends



3. Data availability and quality

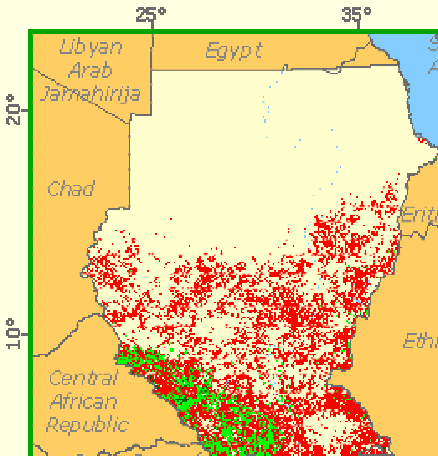
- National monitoring systems
  - e.g. National Forest Inventories
- Independent / Unrelated assessments
  - e.g. remote sensing studies
- Expert estimates
  - assumptions..
- Other
  - e.g. Management plans, Cadastres

Methods for forest area change estimates

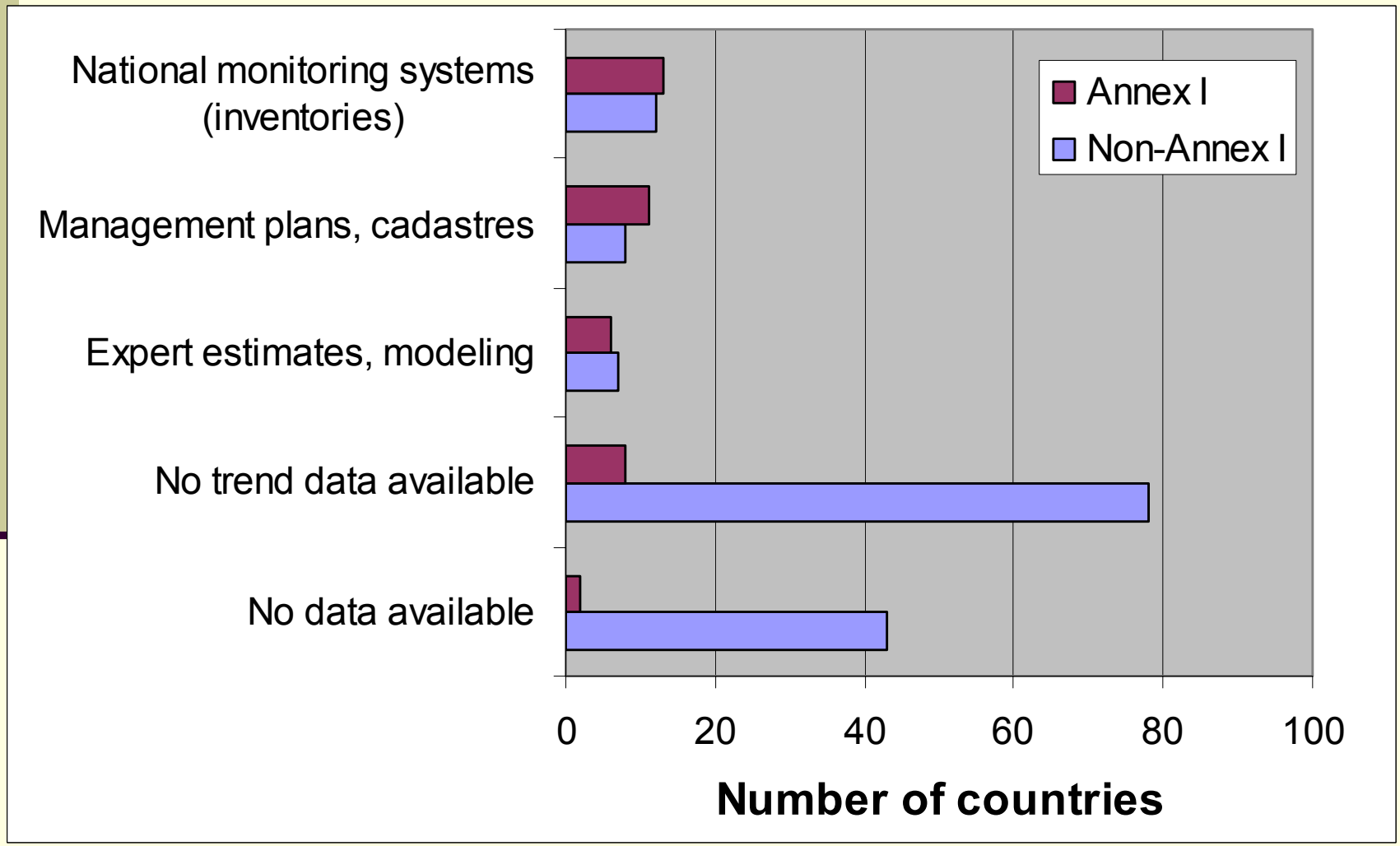


Example: Sudan

- Information sources
  - 1970's World Bank study using Landsat from 1972
  - FAO AFRICOVER project (1995-2002)
- The sources have used
  - different types of remote sensing data
  - different methodologies, definitions and classifications
  - different levels of detail
- Direct comparison
  - Net change = 1 Million ha/year
- Expert assumptions to harmonize datasets
  - Net change = 589 000 ha/year.
- Result very sensitive to the assumptions



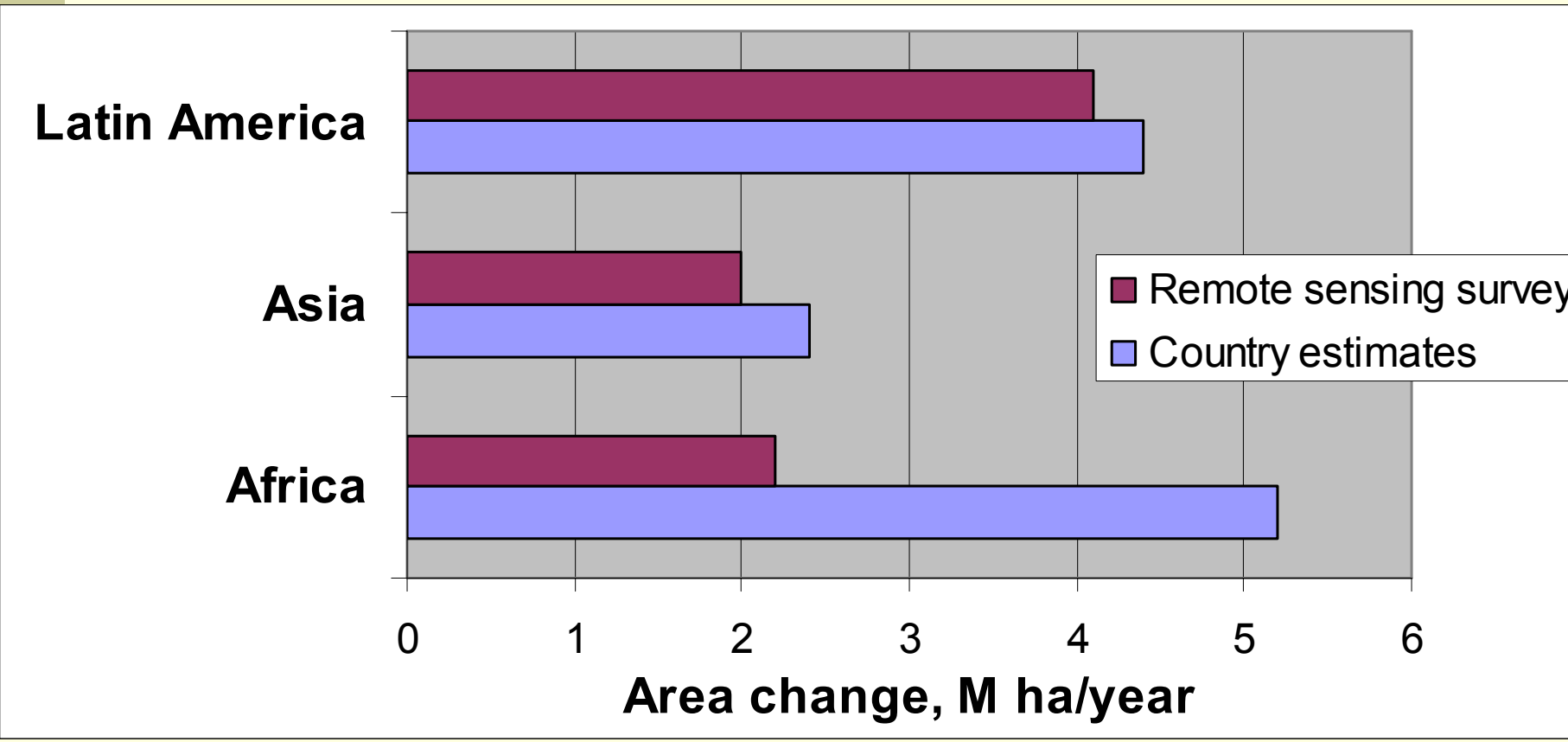
Methods used for carbon stock trend estimates



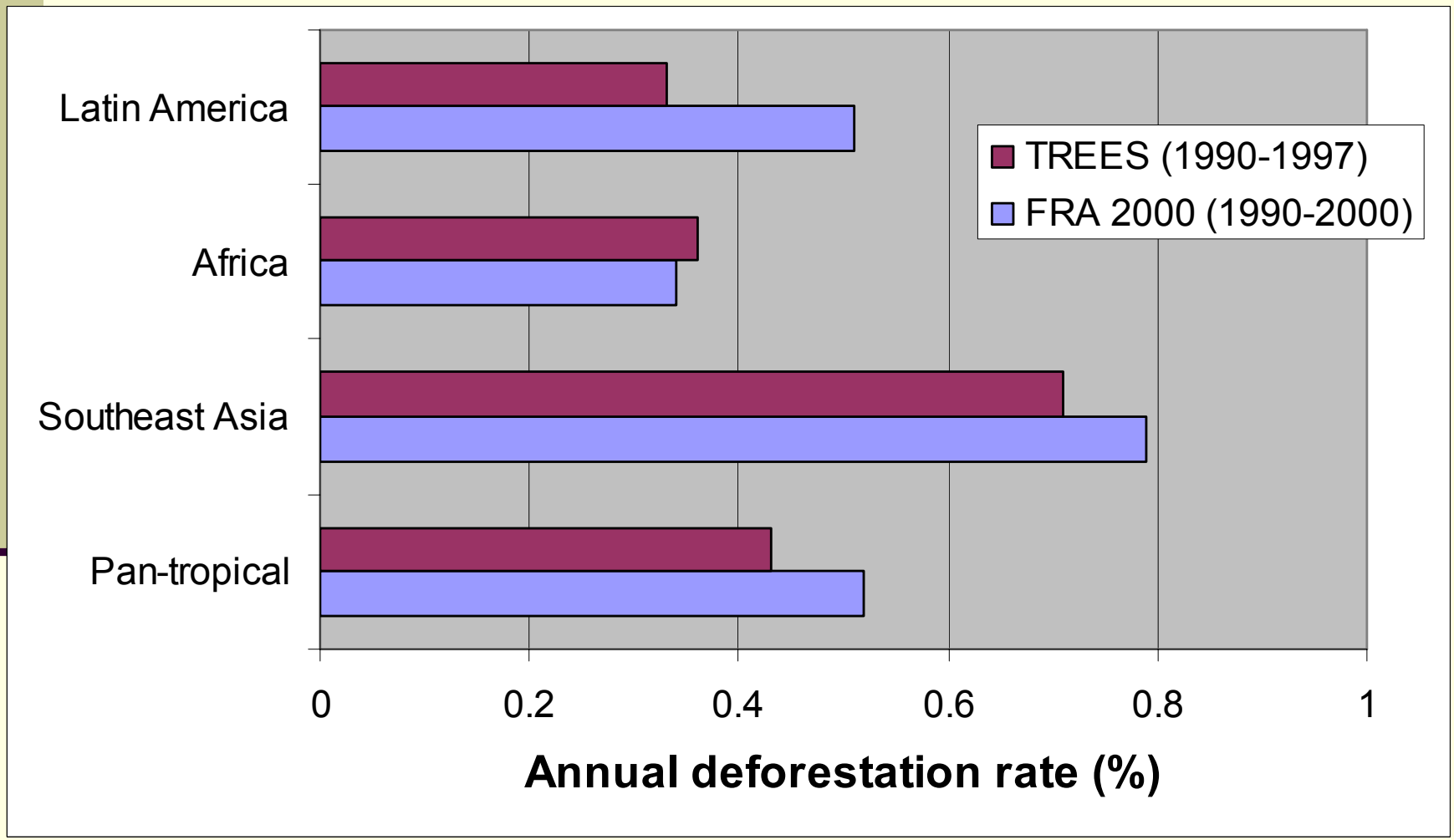
Regional information sources

- FRA 1990 and FRA 2000
  - remote sensing surveys of the tropics
- TREES project
  - remote sensing survey of the humid tropics

Comparison Country data – Remote sensing survey in FRA 2000



Comparison FRA 2000 - TREES

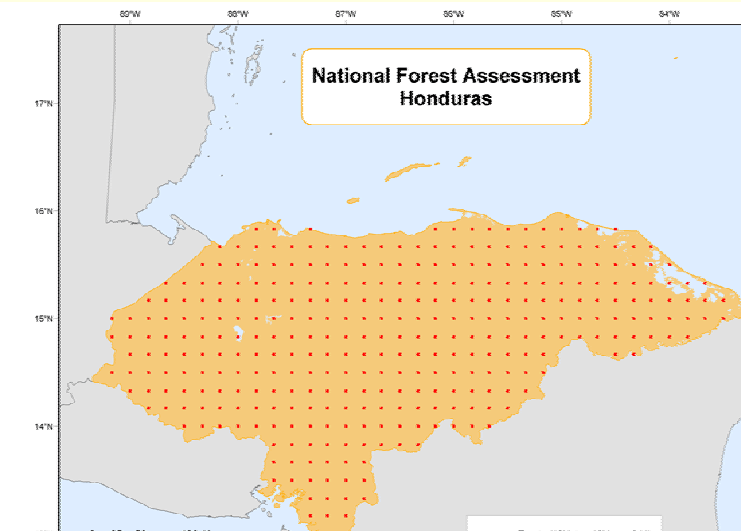


4. Conclusions

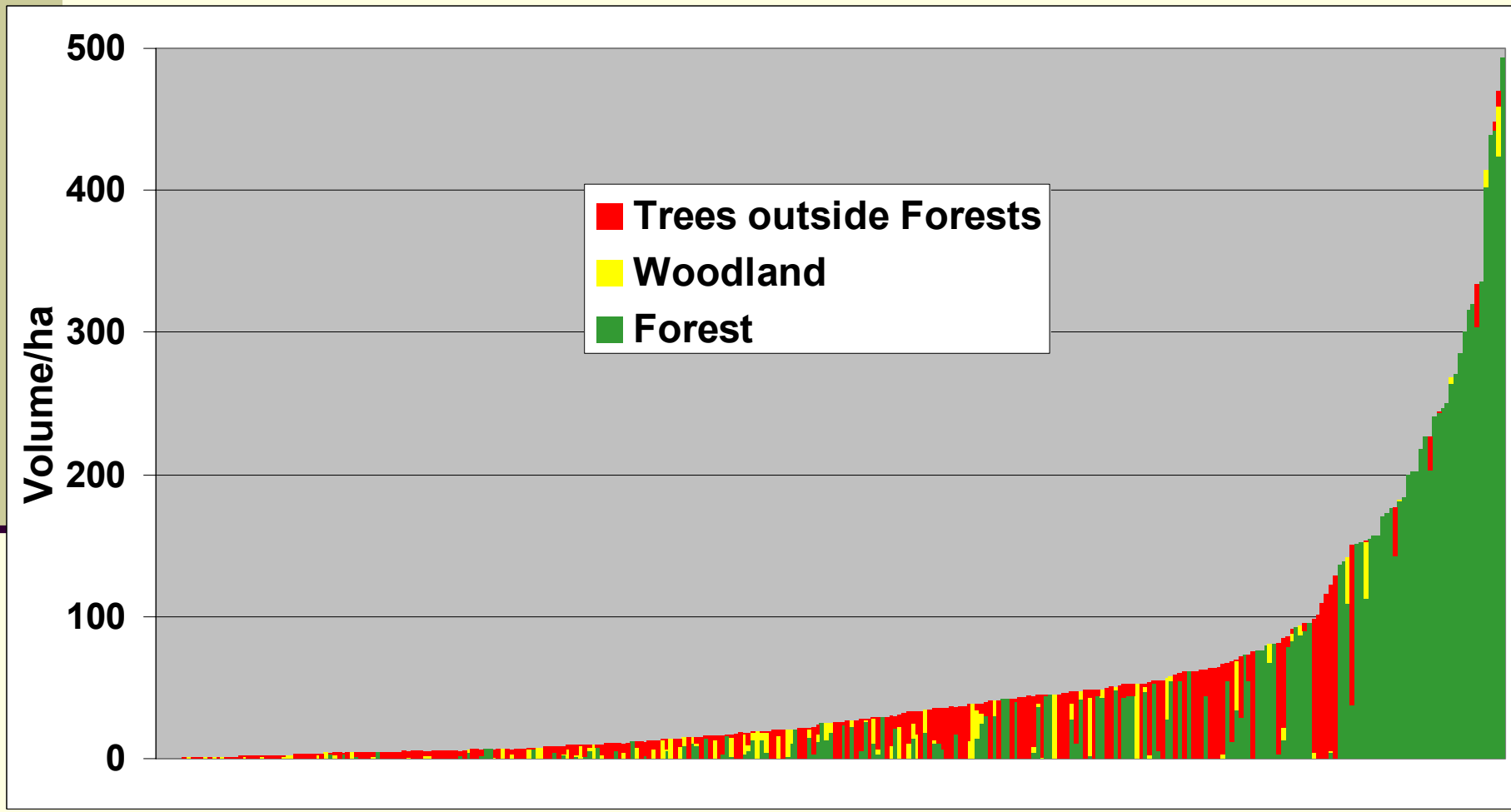
- Considerable differences between Annex I and non-Annex I countries:
  - scale and rate of deforestation
  - availability and quality of data
  - existence of National Monitoring Systems
  - capacity for forest monitoring
- Field measurements often neglected in national assessment projects

5. Prospects to improve data availability and quality (1)

- COST-EFFECTIVE , TIMELY and ACCURATE monitoring systems relevant at NATIONAL level
  - National forest inventories – field sampling
  - Broader scope than climate issues
  - Remote sensing support where relevant
  - Institutional strengthening
  - Long-term approach



Example: Philippines: Growing stock by sample site



5. Prospects to improve data availability and quality (2)

- Robust monitoring systems for the global / regional level
  - Improved international coordination and collaboration
  - Time series of remote sensing observations
  - Engage local expertise / country-level institutions
  - Use sampling
  - Use “low-tech”
  - Better simple and operational than theoretically advanced..

Thank you