

# Taking Action on Monitoring for REDD Implementation

UNFCCC Side Event, Bonn, 9 June 2009 Peter Holmgren, FAO







#### Outline

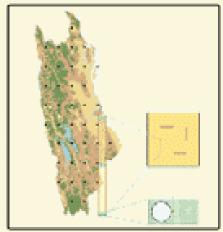
- 1. Needs and Gaps
- 2. UN-REDD Programme approach
- 3. Notes from country programmes
- 4. Key international support actions
- 5. Monitoring issues for REDD implementation



### Measuring 5 carbon pools

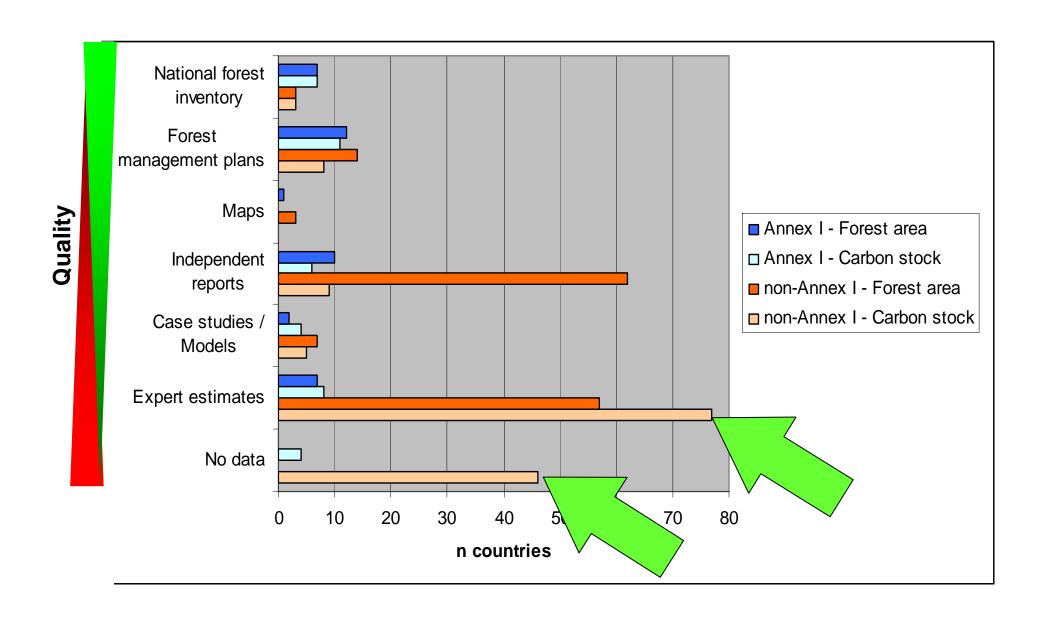
- Above-ground biomass
- Below-ground biomass
- Dead wood
- Litter
- Soil organic matter



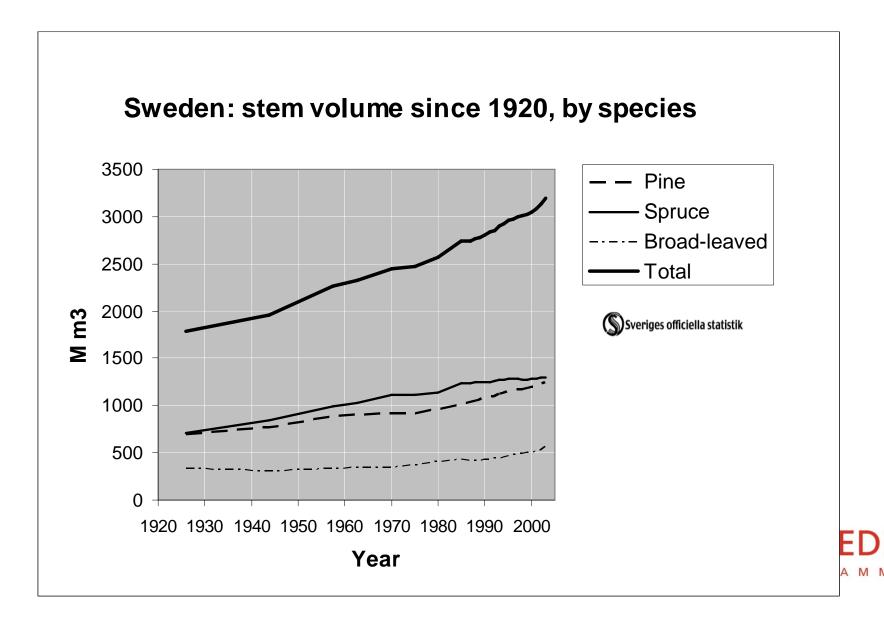




#### Current data sources (above-ground C)



## Long-term institutional effort



### 2. UN-REDD Programme approach

- 1. Country programmes
  - 9 pilot countries
- 2. International support functions
- Focus on REDD implementation within broader development context
- Governance aspects
  - Institutional strengthening, Capacity building
  - Stakeholder engagement

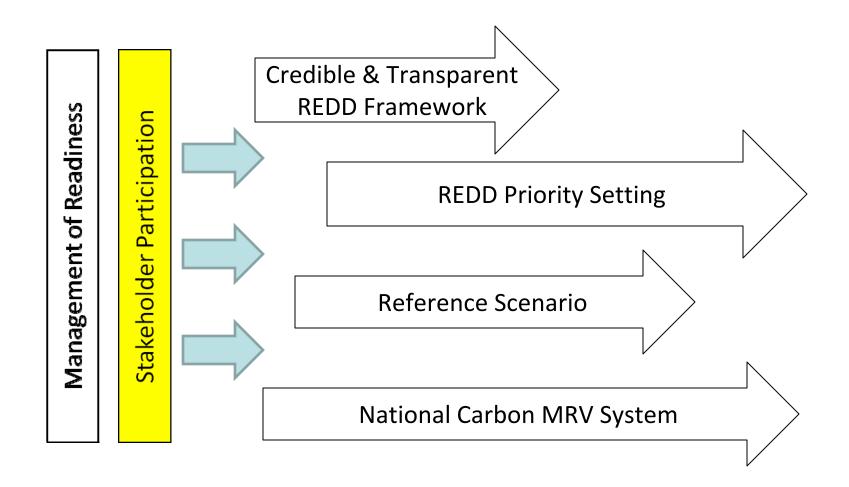


### 3. Notes from country programmes

- Institutional strengthening
  - Long-term, Synergies with other monitoring efforts, Political and financial commitments, International collaboration
- Historical emissions
  - Remote sensing, UN-REDD collaboration with Global Forest Resources Assessment
- Current and future C stocks and changes
  - Field sampling, Remote sensing, Models and functions, Links to sub-national levels
  - Synergies with other monitoring efforts
- Information needs beyond C
  - Multiple benefits, Country-specific



#### **Components of National Readiness (Zambia)**







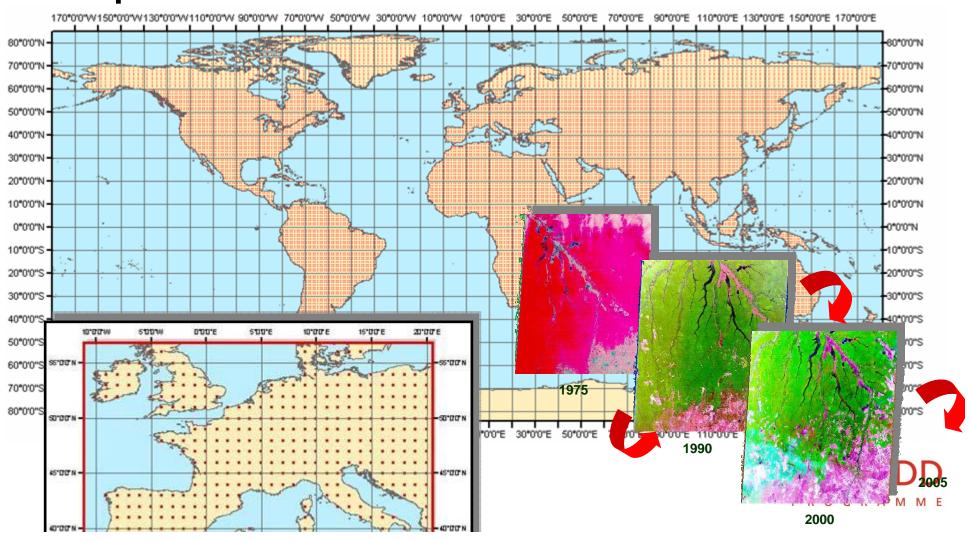


#### MRV for REDD - Road Map for PNG

Forest Land Monitoring **National Carbon Forest** National GHGs Inventory Inventory (RS Lab.) System Spec. Continuous national Operational wall-to-wall field National inventory for the system based on RS. sampling system to assess AFOLU sector as per Annex-Historical data by AUS. Data forest carbon stocks for all I Parties under UNFCCC. distribution on web-GIS the carbon pools in the main system (e.g. Prodes, Deter) forest types (IPCC Tier3) Time One year to be operative -Partially already operative -Two years to prepare the two years to deliver outputs two years to be completed first inventory (2011) Cost US\$ 1M up to 2011 -US\$ 2M up to 2011 -US\$ 500.000 up to 2011 -US\$ 300,000 p.a. US\$ 400,000 p.a. US\$ 150,000 p.a. **Training** In country (AUS - FAO) -In country (FAO-ITTO-AUS) At regional level (UN-REDD) Advanced course in Brazil Advanced course in India At country level (AUS) Institution **OCCES** Forest Research Institute **OCCES** 

### FRA 2010 Remote sensing survey

#### **Options for UN-REDD countries**



### 4. Key international support

- Capacity building for GHG inventories
- Aligning existing initiatives
  - e.g. National Forest Monitoring and Assessment
- Training and sharing of experiences
- Case studies
- Reviewing the knowledge base
- Remote sensing data supply

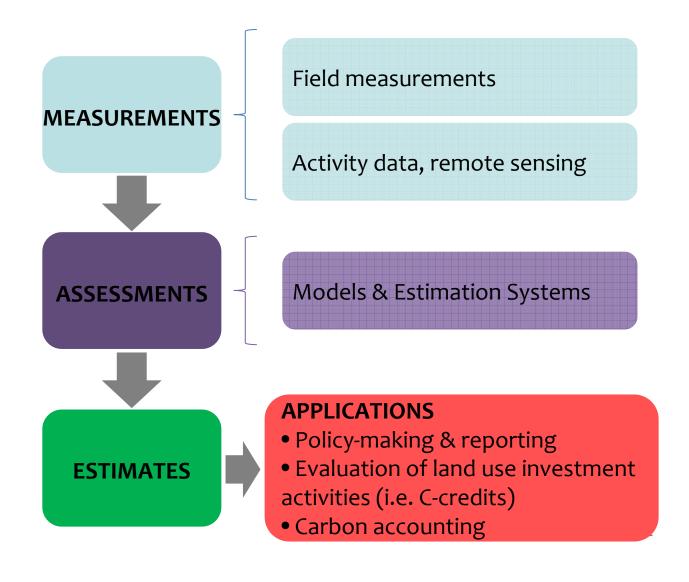


### Selected actions - with partners

- CD REDD workshops held in
  - Brazil (Land Use Area Change Assessment)
  - India (National Forest Inventory)
- Technical workshop on "the Role of Sustainable Forest Management in the context of REDD" (Nov 2009)
- REDD readiness workshop, 7-8 August 2009, Bonn
- Set of advance training courses planned with
  - INPE of Brazil -- operational monitoring of forest land/remote sensing
  - Forest Survey of India -- national forest inventory
- Comprehensive special study on forest degradation
  - Identify parameters of forest degradation and best practices for measuring
- Case studies:
  - Guyana and Suriname: Preliminary national assessments of forest carbon stock and changes, evaluate institutional capacities for MRV
  - Bolivia: Monitoring guidelines for deforestation and governance with EDD indigenous peoples

### Reviewing the knowledge base

Collaboration
with Terrestrial
Carbon Group /
Heinz Center



### Systematic review of evidence

#### Review question

 How effective are systems that estimate carbon stock/changes for large geographic areas?

#### **Sub-questions**

- Actual Measurements
- Estimation Models / Functions
- Sampling approaches
- Remote sensing extrapolations





# Remote Sensing Data Supply





### Remote Sensing Data Supply

Should be

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Free (part of infrastructure)
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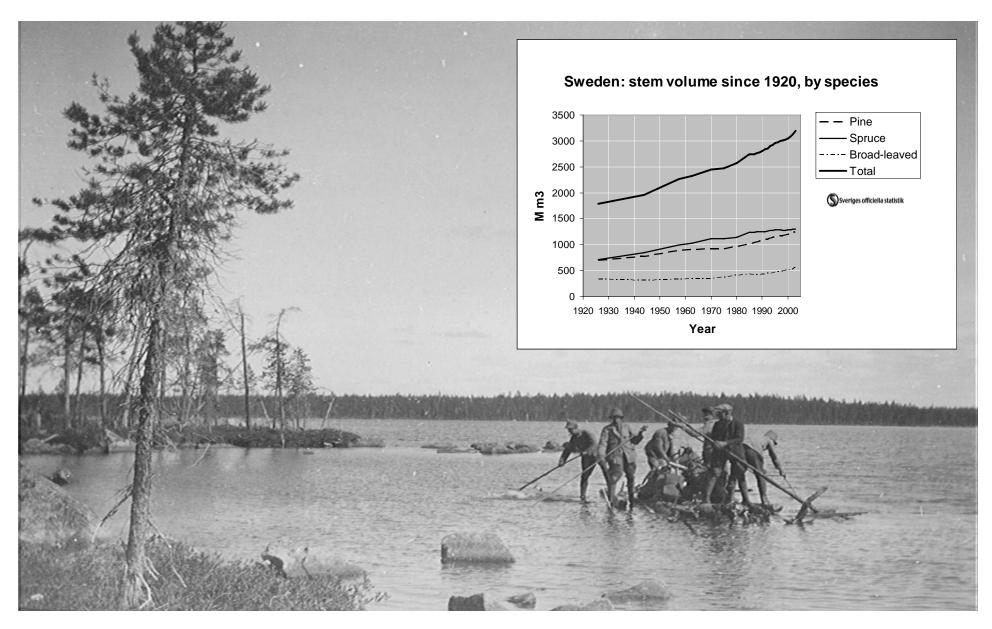
Frequent (draw from available satellite systems)

Useful (standardized deliverables)

Collaboration with GEO



### 5. Monitoring issues in REDD implementation



#### 5. Monitoring issues in REDD implementation

#### MRV for Carbon

- Not rocket science...
- ..but requires methodological considerations and improvements

#### Multiple Benefits

 REDD implementation requires broader information on natural resources, their uses and users

#### Governance

- Long-term Institutional Strengthening
- Stakeholder engagement

#### Synergies

Integration of C in existing monitoring systems

