



# Taking Action on Monitoring for REDD Implementation

UN-REDD Policy Board, 14 June 2009

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# Outline

1. Monitoring and MRV for REDD Implementation
2. Framework for Action
3. Monitoring issues for REDD implementation

# On acronyms and negotiated texts

- “MARV” -> MRV + other Information needs for REDD Implementation -> “Monitoring”



# On REDD Implementation

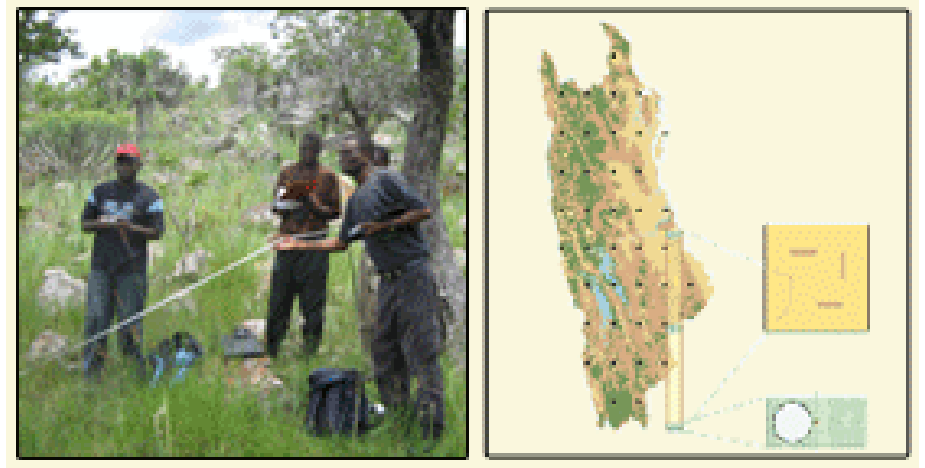
## Key aspects for Monitoring

- MRV plus other information needs
- REDD implementation within broader development context
- Governance
  - Institutional strengthening, Capacity building
  - Stakeholder engagement

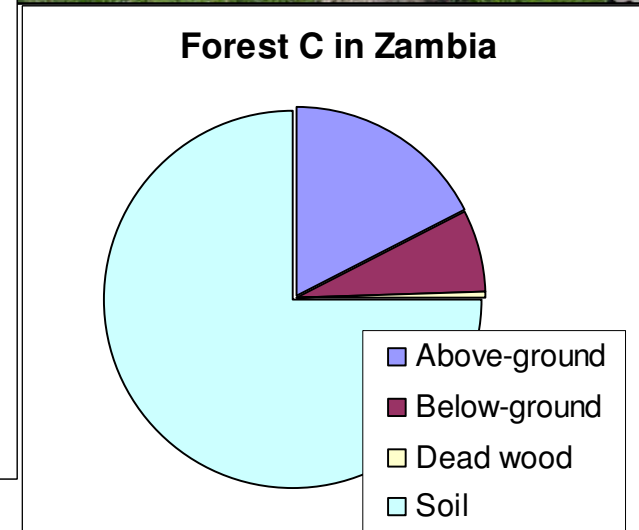
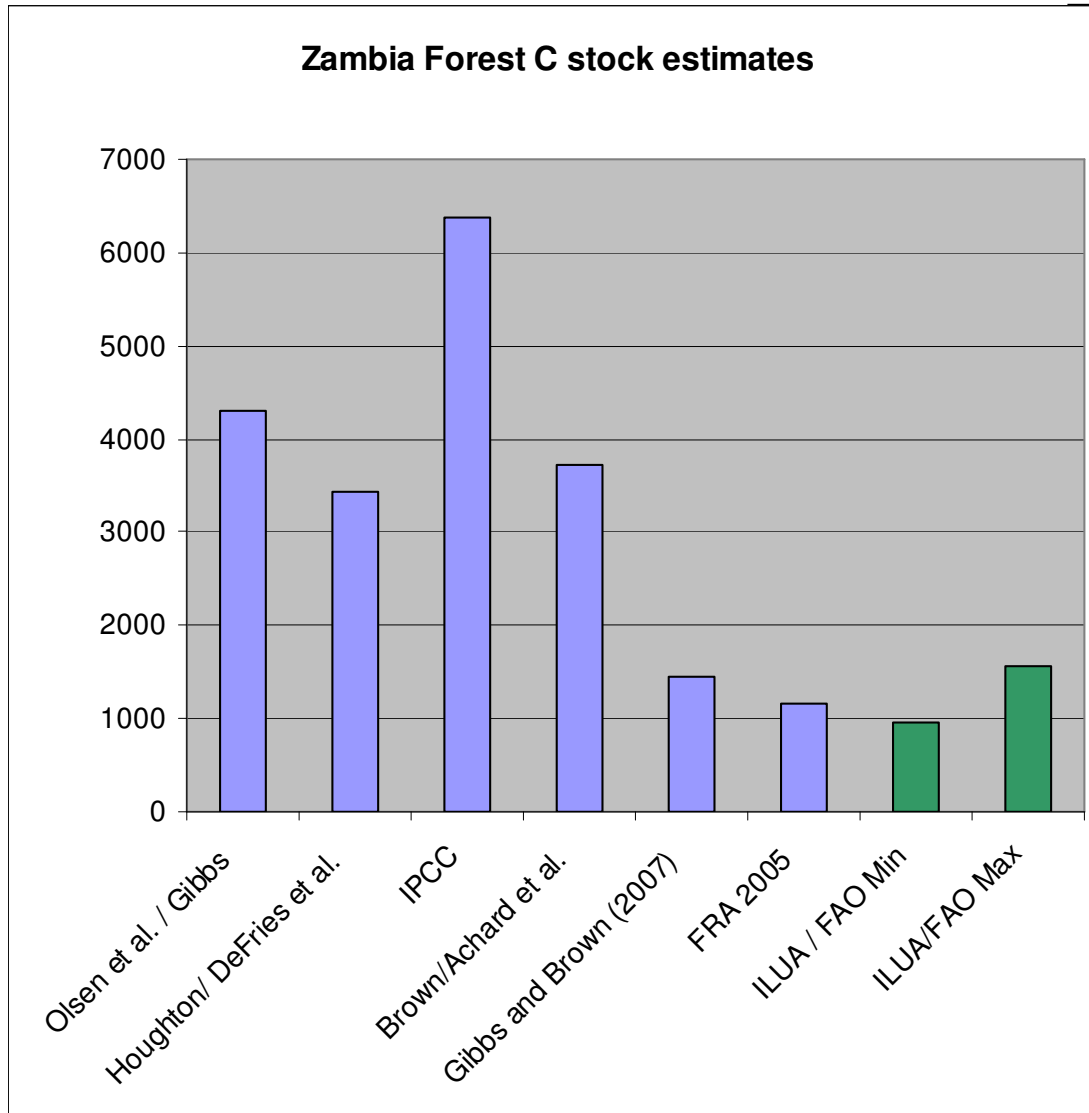
	<b>Negotiated MRV Requirements</b>	<b>Further national REDD implementation requirements</b>
<b>Carbon</b>	Stock and changes of carbon pools in the six land use Categories at country level	Localized carbon information is required on carbon in ecosystems, landscape, species, and tree components for each category of land use, and tailored to national REDD implementation.
<b>Multiple Benefits (co-benefits)</b>	?	<p>Ecosystem and other services (biodiversity conservation, water conservation, soil conservation cultural and spiritual values, forest pasture)</p> <p>Goods (Non-wood and wood products)</p> <p>Uses and users of goods and services</p> <p>Socio-economic, livelihoods, food security and poverty indicators</p> <p>Land tenure</p>

# MRV - Measuring 5 carbon pools

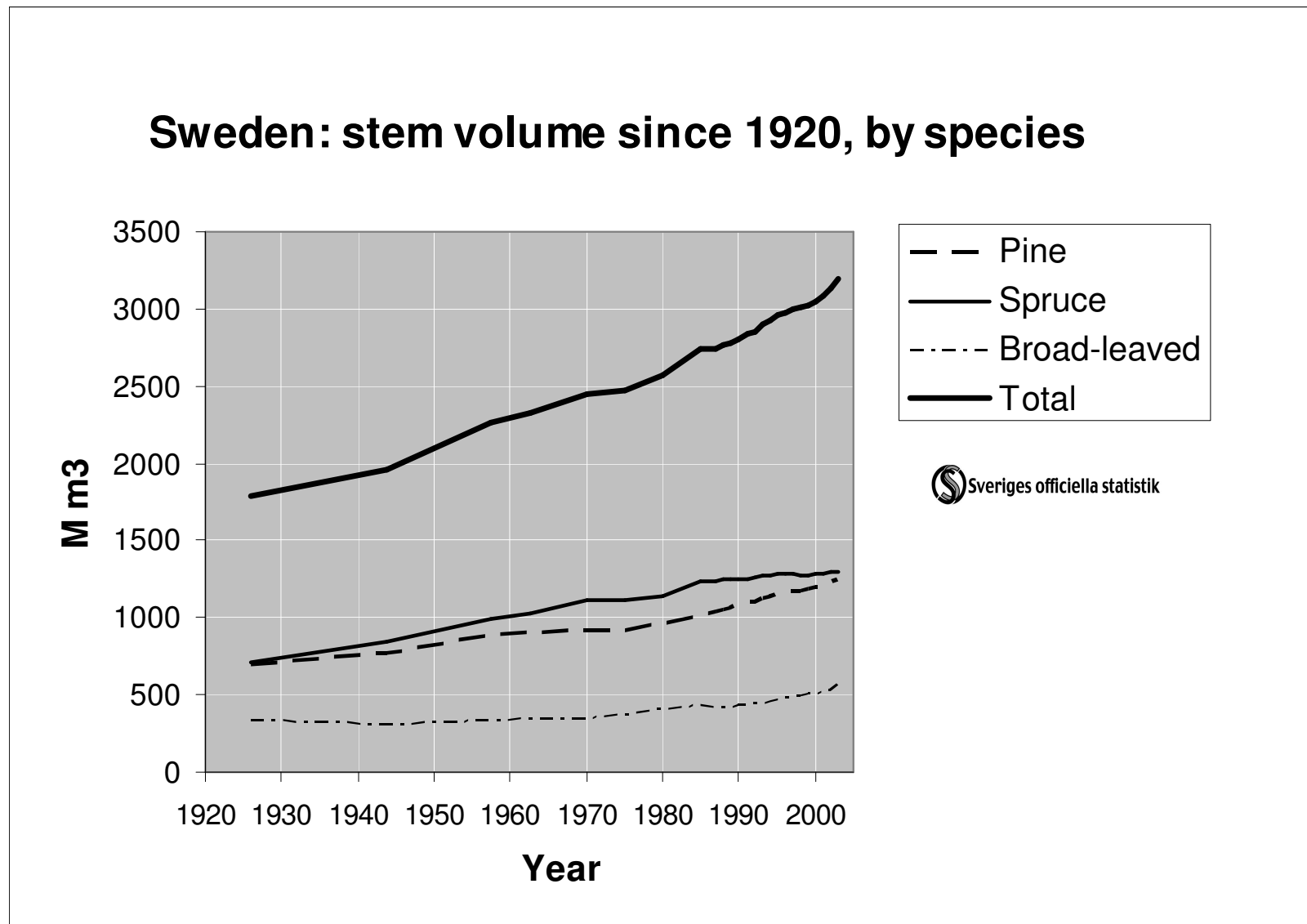
- Above-ground biomass
- Below-ground biomass
- Dead wood
- Litter
- Soil organic matter



# Zambia findings



# Long-term institutional effort





## 2. Framework for action 2009-2014

1. Design phase
2. Country action
3. International support

## 2.1 Design phase 2009-2010

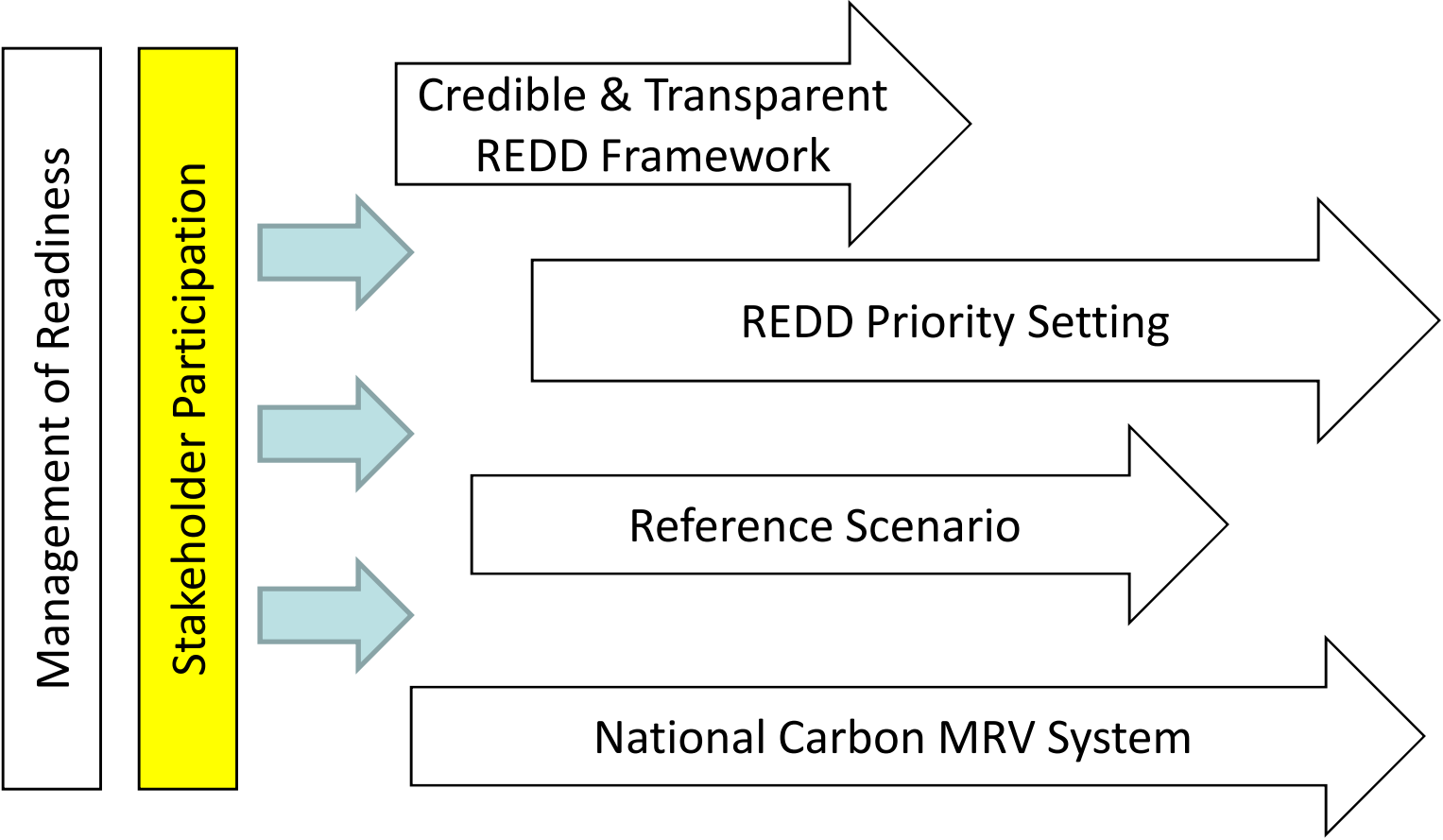
Immediate needs for:

- Establishing Country participation (20?)
- Methodological development and reviews
- Guidance for national implementation
- Financing / coordination / synergies
- Multi-year plan of work
- Alignment of implementation with agreement

## 2.2 Country action 2009-2014

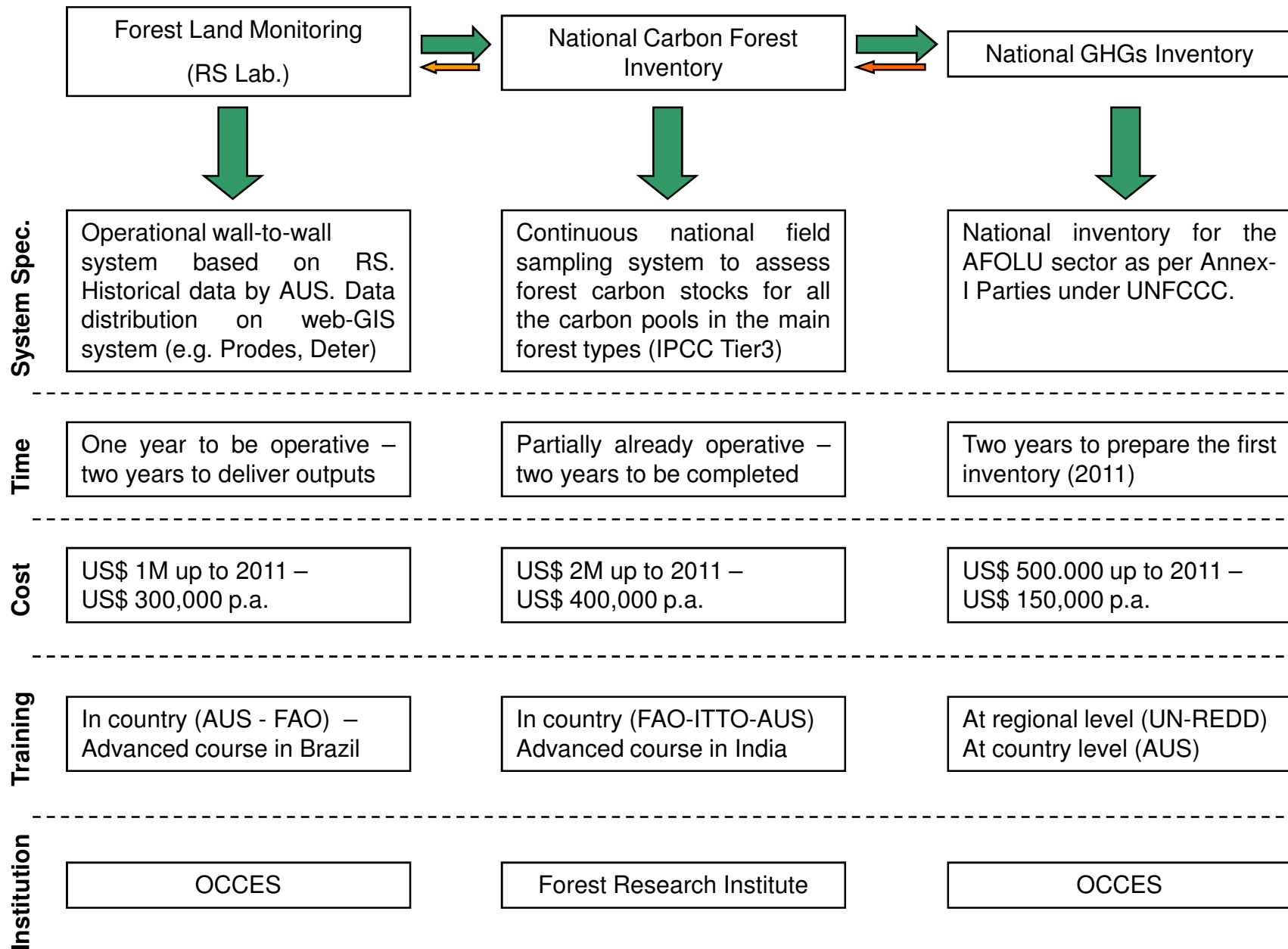
- Institutional strengthening
  - Long-term, *Synergies with other monitoring efforts*, Political and financial commitments, *International collaboration*
- Historical emissions
  - Remote sensing, *UN-REDD collaboration with Global Forest Resources Assessment*
- Current and future C stocks and changes
  - 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

Ver.1 - 21<sup>st</sup> may 2009



## 2.3 International support 2009-2014

- Capacity building for GHG inventories
- Aligning existing initiatives
  - e.g. National Forest Monitoring and Assessment
  - FRA Remote sensing survey for country application
- Training and sharing of experiences
- Reviewing the knowledge base
- Remote sensing data supply
- Guidelines, advise, standards

# 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 indigenous peoples
  - Independent Forest Monitoring

# 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

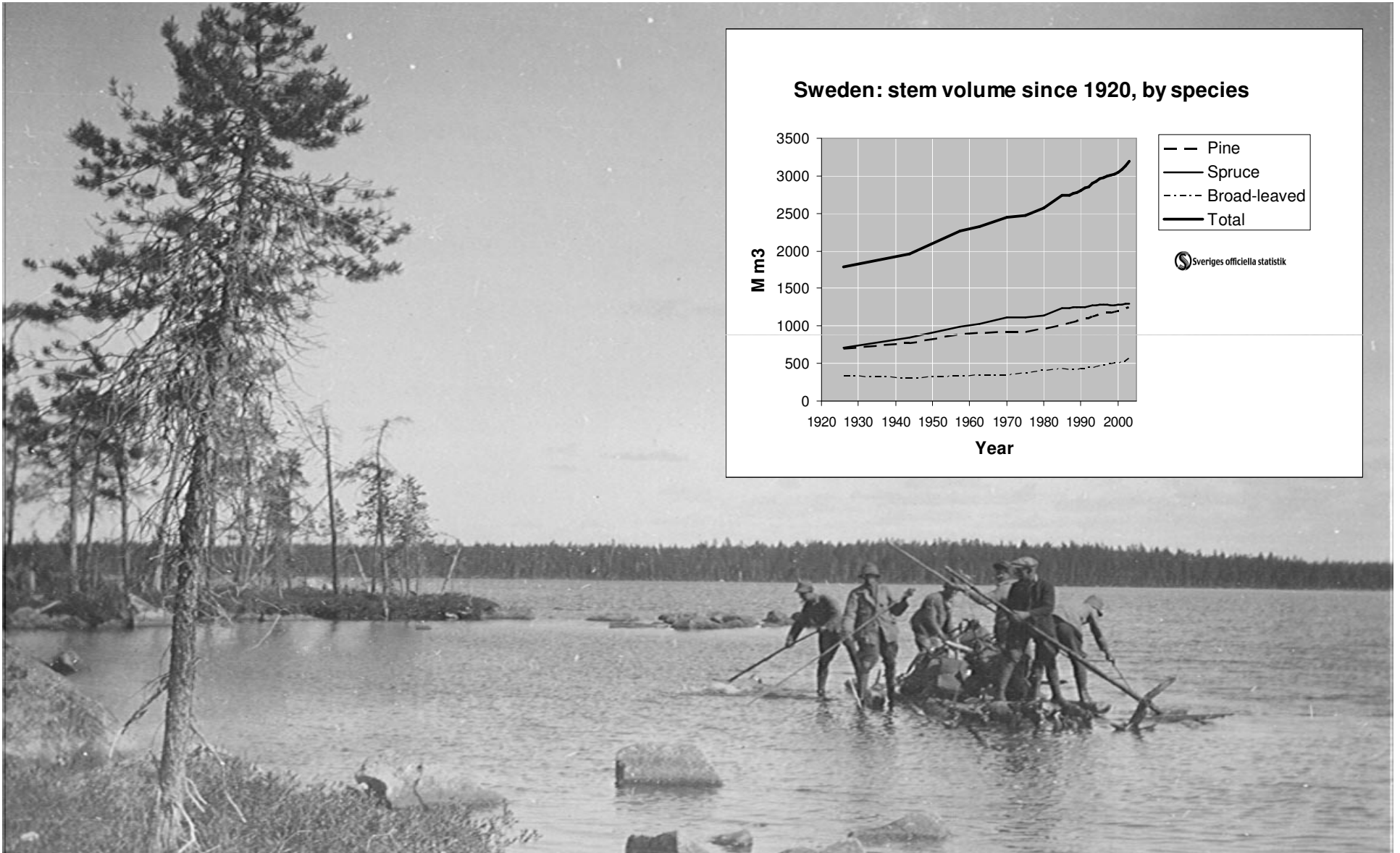
- Should be
  - Free (part of infrastructure)
  - Frequent (draw from available satellite systems)
  - Useful (standardized deliverables)
- Collaboration with GEO

# Indicative costs 2009-2014

## Framework for action

1. Design phase	5	M\$
2. Country action	210	M\$
3. International support	50	M\$

# 3. Monitoring issues in REDD implementation



# 3. 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