



KINGDOM OF CAMBODIA

Nation Religion King

Progress of REL/RL and MRV in Cambodia

May 21, 2012

Bonn, Germany

Mr. Chivin LENG/ MRV supporting team

Forestry Administration, MRV/REL Country Focal Point.

Contents

1. The basic method for assessing GHG land emissions
2. Institutional arrangements
3. Past experiences
4. UN-REDD and JICA support
5. Challenges

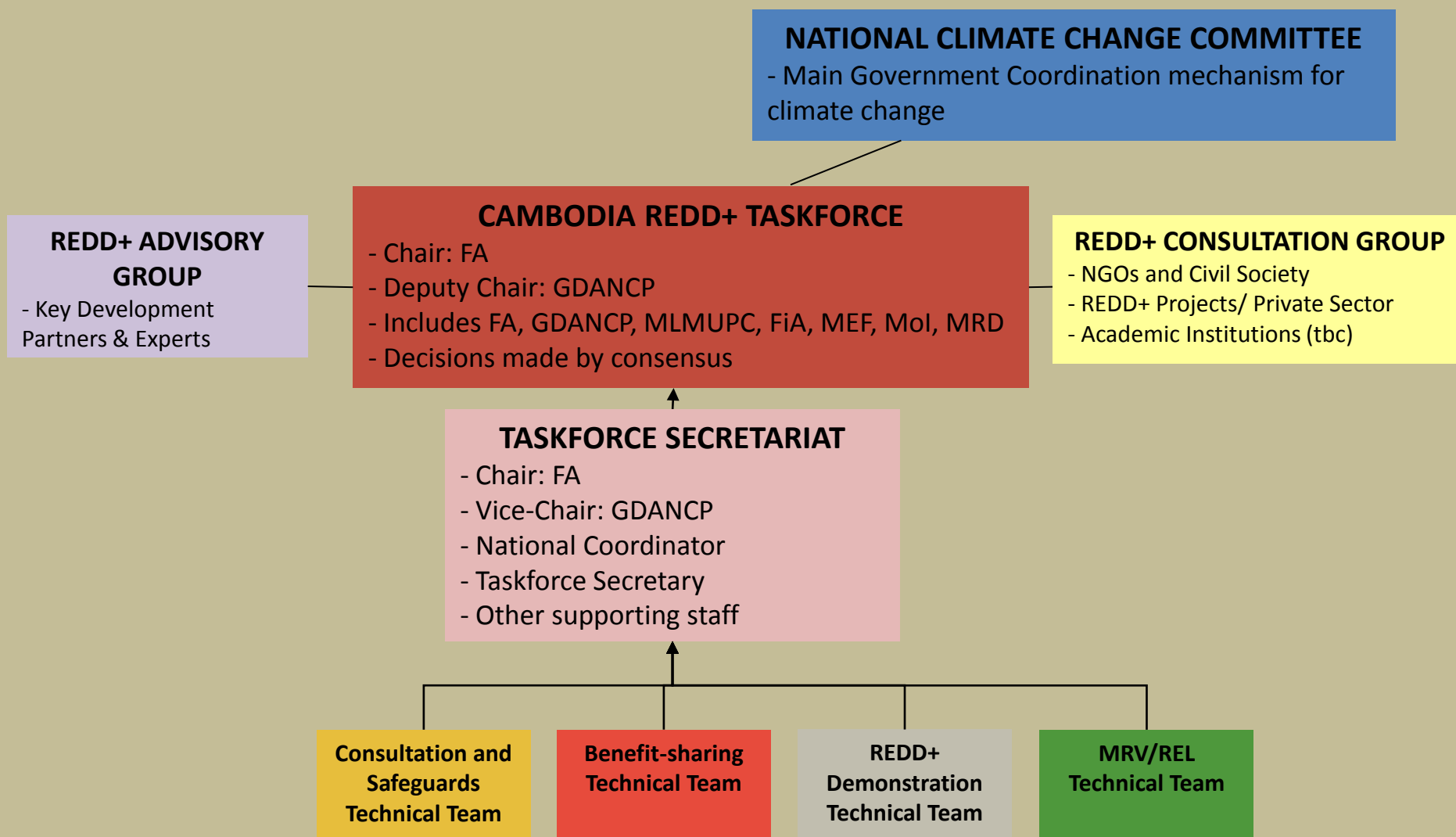
REDD+ Readiness Status/Overview of Roadmap

- **Component 1:** Organize and Consult.
 - National Coordination Arrangement
 - Consultation and Participation Process
- **Component 2:** Prepare the REDD+ Strategy.
 - 2 Mill. Hectares of CFs
 - 3 Mill. Hectares of Protection Forest
 - 2.6 Mill. Hectares of Production Forest
 - Maintaining 3 Mill. Hectares of Protected Areas.

REDD+ Readiness Status/Overview of Roadmap

- **Component 3:** Develop a Reference Level.
 - Understanding Cambodia's national circumstances.
 - Development of future trajectories of emission/removals over difference time periods.
- **Component 4:** Design a Monitoring System.
 - Development of MRV System.
 - Development of Monitoring & Reporting System.
- **Component 5:** Schedule and Budget.
 - ≈ 11 Mill. (From 2011-2014 of component 1 to 4).
- **Component 6:** Design a Program Monitoring and Evaluation Framework.

National REDD+ Management Arrangements

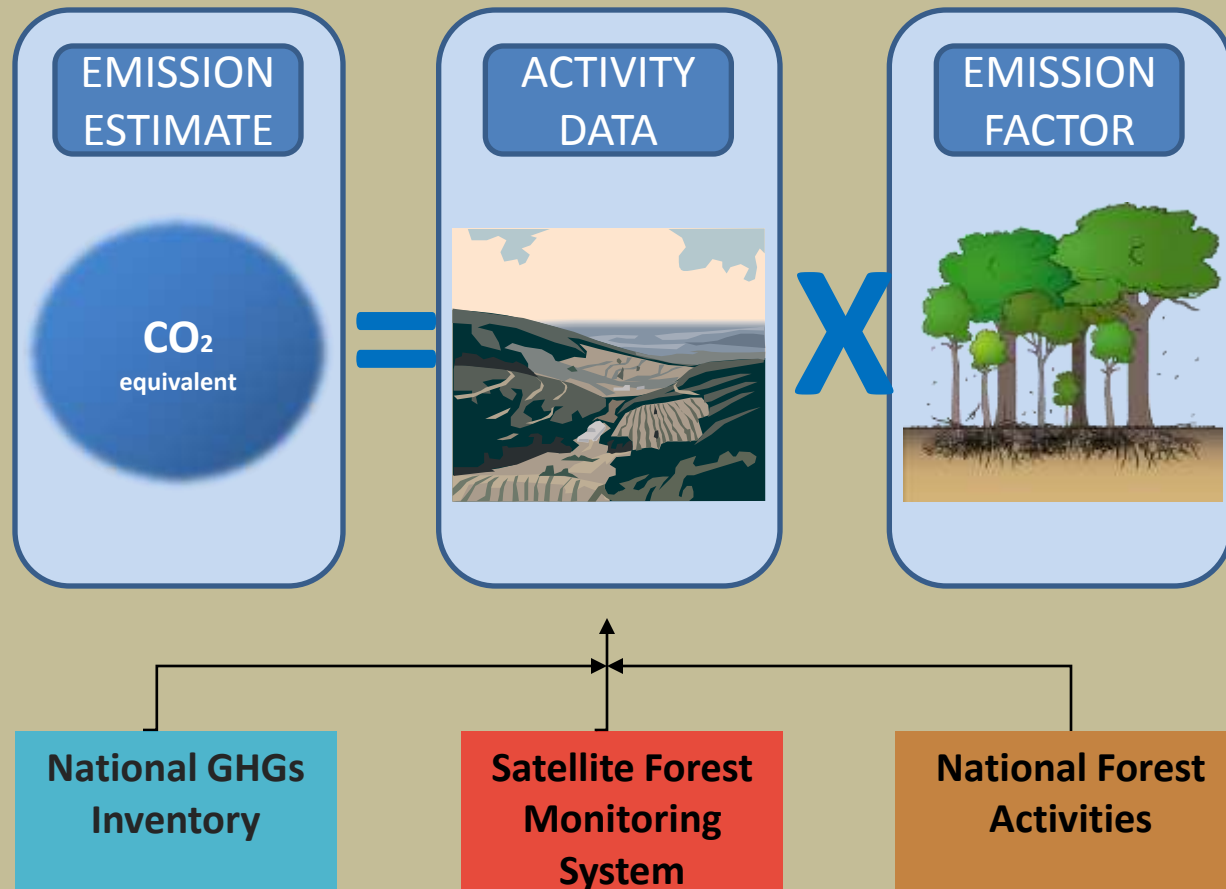


1. The basic method for assessing GHG land emissions

Key elements of MRV for REDD implementation

- Reducing emission from deforestation
- Reducing emission from forest degradation
- The role of conservation
- The role of sustainable management of forest and
- The role of enhancement of forest carbon stock

1. The basic method for assessing GHG land emissions Cont...



❖ **In accordance with IPCC.**

For first instant, Cambodia's MRV system aim for Tier 2 and able to assess and report for Tier 3 in the future.

2. Institutions involved in MRV

RGC/Council of Ministers

- management of all state properties
- adopts management plans for state properties
- transfers, reclassifies and designates entrusted authorities for state properties

Ministry of Economy and Finance

- maintains inventory of state properties
 - executive agent of the RGC in managing state properties, including transfer, sale, lease, concessions, etc
 - management of state revenue
 - co-chair of state trust funds
- 2008 Public Financial Management Law, 2006 Subdecree # 129 , 2000 Subdecree #04*

Ministry of Land Management, Urban Planning & Construction

- manage cadastral administration of state immoveable properties
 - issue title/ownership certificates to all immovable properties
 - management of maps of Cambodia
- 2001 Land Law, 1999 Subdecree # 62*

Ministry of Agriculture, Forestry and Fisheries

- general jurisdiction for forests and forest resources (PA management under MoE)
- registration of permanent forest estates

Forestry Administration:

- responsibility for the Permanent Forest Estate
- developing and implementing national forest programme (including community forestry)
- studying and collecting data on all state forests
- conducting assessments of national forest carbon stocks
- developing forest carbon trades
- reforestation

Fisheries Administration:

- responsibility for flooded forest and mangrove areas
 - developing and implementing national fisheries plan (including community fisheries)
- 2002 Forestry Law, 2008 Subdecree #188, 2006 Fisheries Law*

Ministry of Interior (inc. NCDD)

- subnational administration (prov/dist/comm)
 - commune development plans & funds identify functions to be transferred to sub-national councils (NCDD)
- 2008 Organic Law*

Ministry of Environment

- management of Protected Areas
- review environmental impact assessments
- CDM interim designated national authority

General Department (GDANCP):

- developing and implementing National Protected Areas Strategic Management Plan
- responsibility for international environmental conventions

Department of Climate Change of GDANCP:

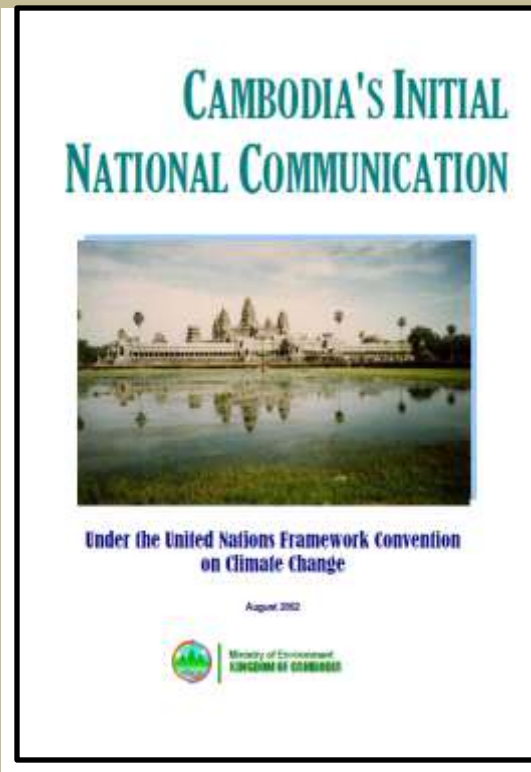
- cooperate with relevant institutions to : develop national climate change strategies, and carbon credit policy, manage climate change trust funds; Secretariat of NCCC
 - UNFCCC focal point: negotiations, implementing UNFCCC decisions and preparing national GHG inventory reports
 - coordinating implementation of CDM and carbon credit projects
- 2008 Protected Areas Law, 1993 Royal Decree, 2008 Subdecree #37, 2009 Subdecree #175*

Ministry of Rural Development

- Recognize indigenous communities for registration with Mol
- 2001 Subdecree*

3. Past experiences

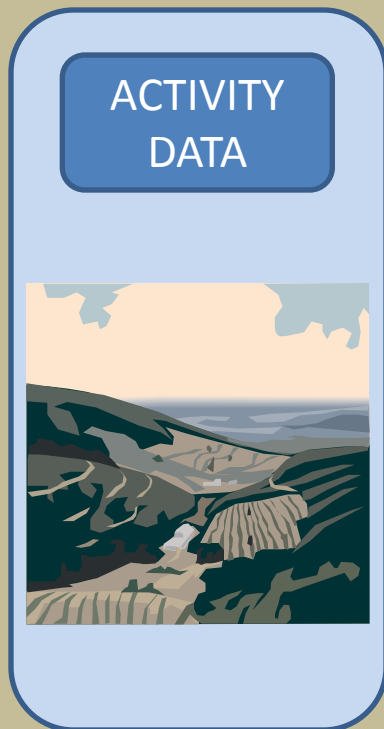
Related to GHG inventory



Second national communication

3. Past experiences

(Related to mapping land area and area changes)



Methodology:

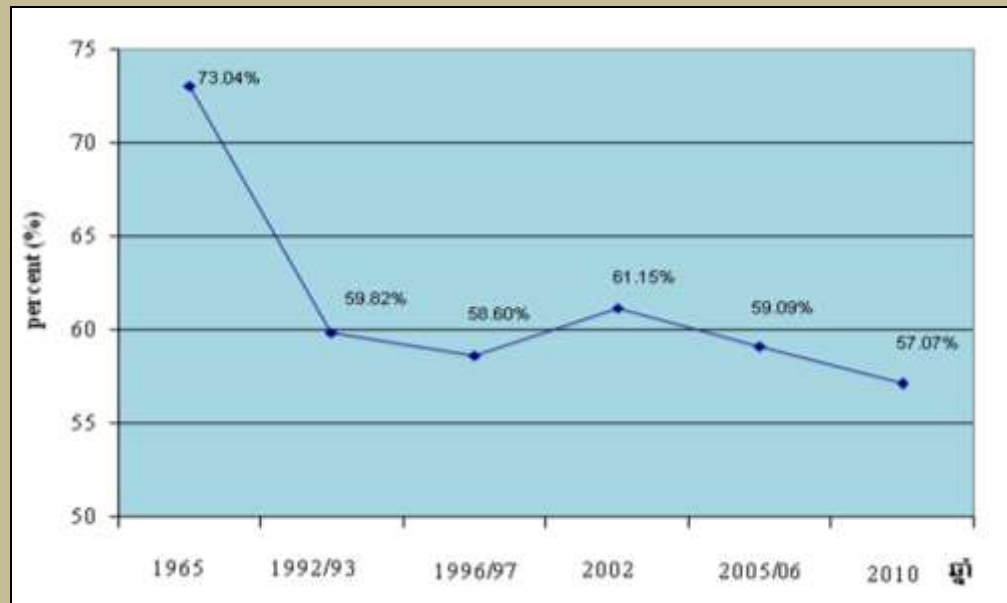
Visual analysis digitization on screen using ArcView software, ArcGIS9.3, ERDAS 9.1. Minimum mapping unit 25ha. Satellite Band 4 3 2.

Forest classification 2002 , 2006 and 2010 classified in 4 classes:

- .Evergreen forest
- .Semi-evergreen forest
- .Deciduous forest
- .Others forest

Forest Cover Changes

- Forest cover 1965 : 73.04%
 - 1992/93 : 59.82%
 - 1996/97 : 58.60%
 - 2002 : 61.15%
 - 2005/06 : 59.09%
 - 2010 : 57.07%
-
- Annual deforestation rate: 0.34% (1965-2002)
 - Annual deforestation rate: 0.5% (2002-2006-2010)



Forest Covers Change 2006-2010

No	FOREST TYPES	FOREST COVER AREA				CHANGE	
		2006		2010		2006-2010	
		Ha	%	Ha	%	Ha	%
1	Evergreen forest	3,668,902	20.2	3,499,185	19.27	-169,717	-0.93
2	Semi evergreen forest	1,362,638	7.5	1,274,789	7.02	-87,849	-0.48
3	Deciduous forest	4,692,098	25.84	4,481,214	24.68	-210,884	-1.16
4	Other forest	1,007,143	5.55	1,108,600	6.1	101,457	0.56
Total forest land		10,730,781	59.09	10,363,789	57.07	-366,993	-2.02
5	Non forest	7,429,893	40.91	7,796,885	42.93	366,992	2.02
TOTAL AREA		18,160,674	100	18,160,674	100		

3. Past experiences Cont...

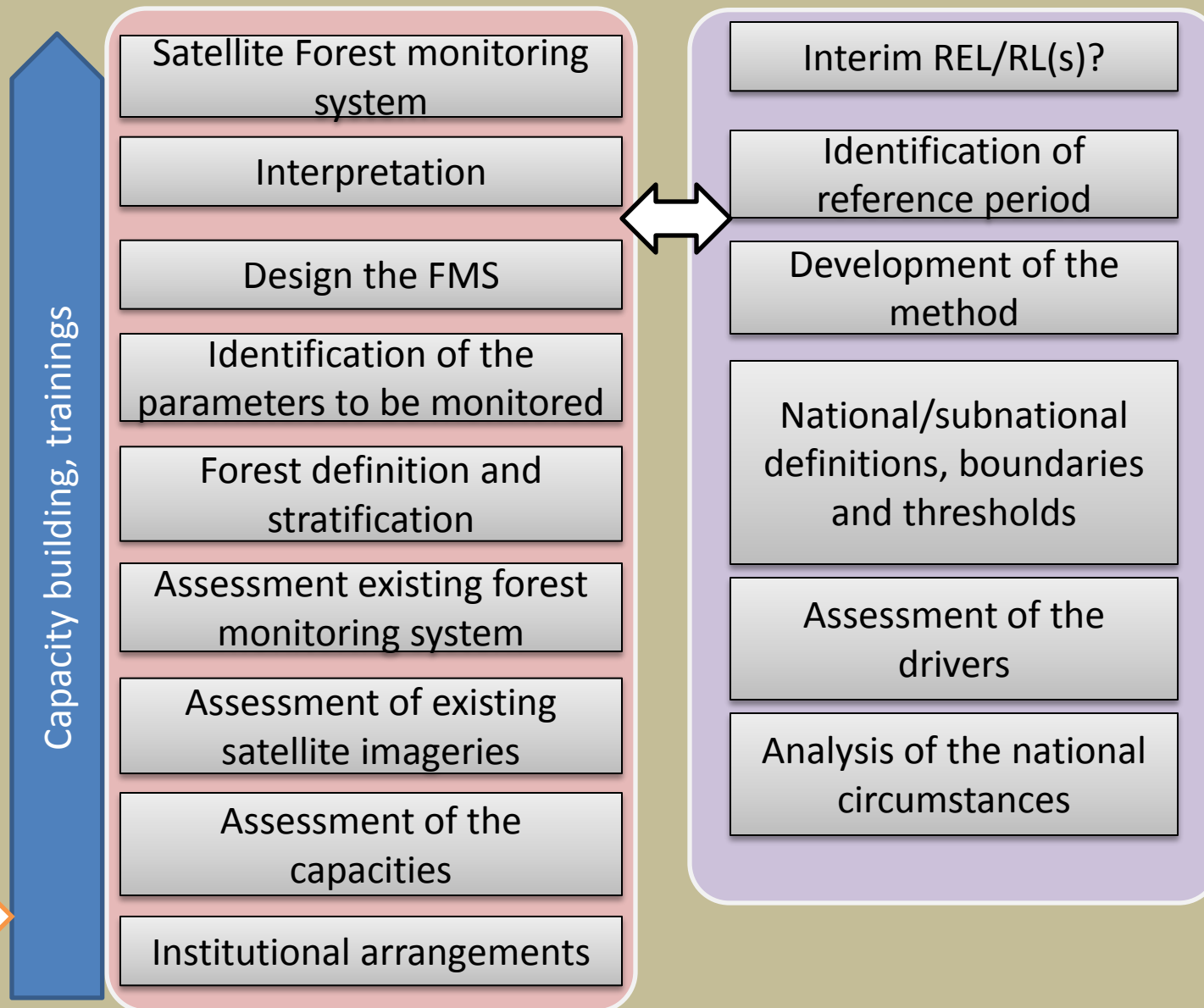
Related to inventory of forest carbon stocks



Forest inventories in REDD+ pilot projects:

- + Southern Cardamoms Forest (Wildlife alliance): 124 sample plots of 1 ha each were measured, primarily in evergreen forest
- + Keo Sima Project site (Wildlife Conservation Society - WCS): 225 plots
- + Conservation International : Feasibility study in East-west Cardamom
- + PACT- Cambodia: Oddormean Chhey Province
- + Japanese's Research University.: 46 plots in Kompong Thom Province
- + Forest Administration + Ministry of Environment (GDANCP)

4. UN-REDD and JICA support



Training Practices

Output: more training in professional REDD

Out come: To assist country to set up protocol of NFM System



Satellite Imagery Training

- Evaluated and assessment for set for enhancing technology/equipments
- Capacity assessment
- Discussion on identified the level of training
- 1st step of training capacity has been started

5. General MRV Constraints

- Institutional arrangements
- Commitments from various agencies
- Forest definitions,
- Consistency, accuracy, transparency, completeness and comparability
- Human, financial and technical capacities, (national and sub-national)
- Integration of sub-national activities into the national framework

5. Challenges for developing historical forest land area and area changes assessment

REDD+ activities	Available data for the past 10 years?	Challenges
Deforestation	1997, 2002, 2006 & 2010	Cloud cover, consistency of the legend, MMU, Mangrove and flooded forest
Degradation	2002-2010	Define forest degradation, Differentiate deforestation and forest degradation, methodology
Enhancement of forest carbon stocks	Incomplete data set	Data are missing: economic and social concessions, agro-forestry and small woodlots
Forest conservation	Forest boundaries	Ground map
Sustainable management of forest	partially	Incomplete data, different institutions, difficult to make difference between SLM, and other logging practices (harvested timber volume is not available) + illegal logging / grabbing

Next steps

- Forest classification to cover flooded and mangrove forest.
- High quality satellite analysis to capture forest degradation
- Need to have simple and standardized methodology in order to help and build national capacity to be easy understood quickly
- Further research on wood density and forest rehabilitation
- Understanding of Reduced Impact Logging (RIL)



Thanks for your kind attention !

សូមអរគុណ

