PARTICIPATORY FOREST/CARBON MONITORING (PFM/PCM) in REDD+ in Viet Nam

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1. History of participatory forest monitoring in Viet Nam, before REDD+

History of participatory forest inventory in FLA/CFM

- Since 1995 Vietnam has lauched Social Forestry approach: Forest allocated to HHs and communities for 50 yeas that awared red book
- From 1995 – 2008: Many ODA projects, programs supported to develop participatory approach for LUP/FLA, CFM (Song Da SFDP, GIZ/GFA, SDC, Kwf, JICA)
- From 2006 – now: TFF has funded national program in 10 provinces. The overall objective has been to develop clear guidelines for FLUP/FLA, CFM
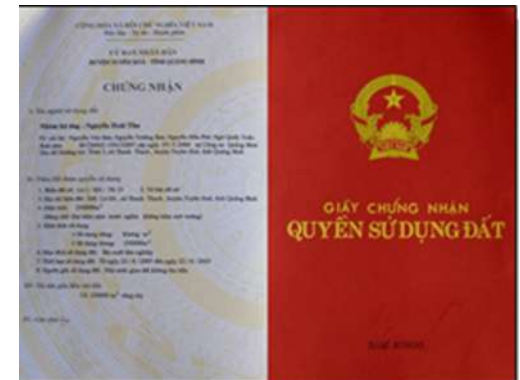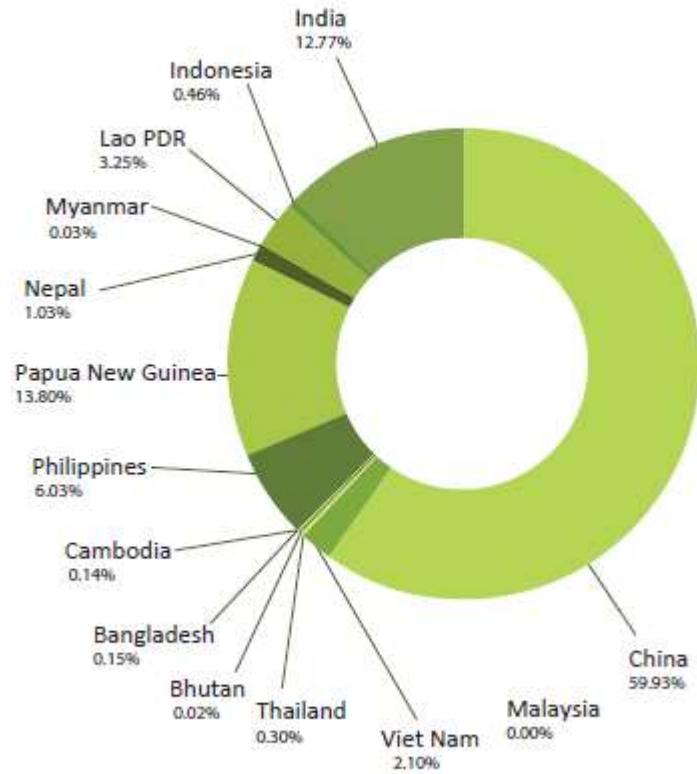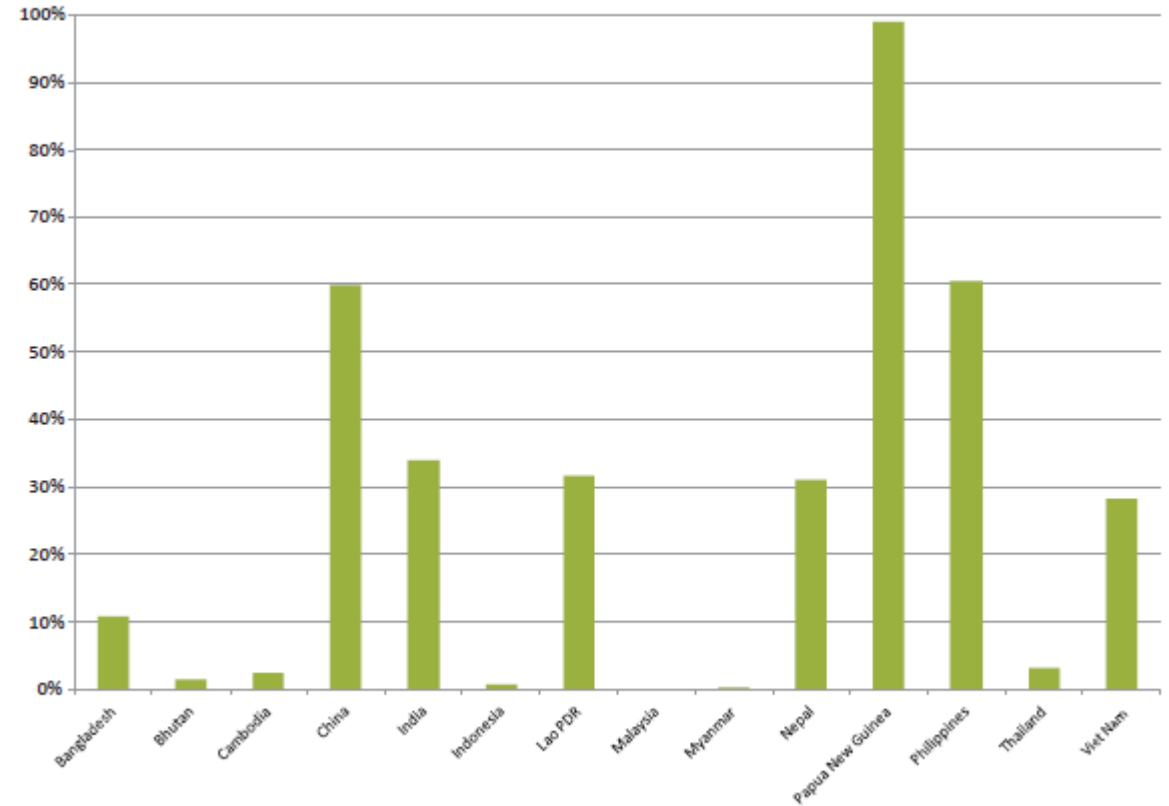
Figure 2.2: Distribution of forest land under community tenure, 2012 (%)

India 12.77%
Indonesia 0.46%
Lao PDR 3.25%
Myanmar 0.03%
Nepal 1.03%
Papua New Guinea 13.80%
Philippines 6.03%
Cambodia 0.14%
Bangladesh 0.15%
Bhutan 0.02%
Thailand 0.30%
Viet Nam 2.10%
Malaysia 0.00%
China 59.93%

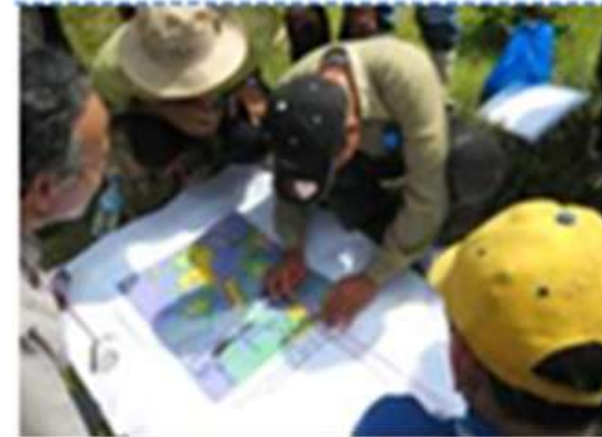Source: Government data from the 14 countries; see annex 1.

Figure 2.3: Share of national forest land in community possession, 2012 (%)

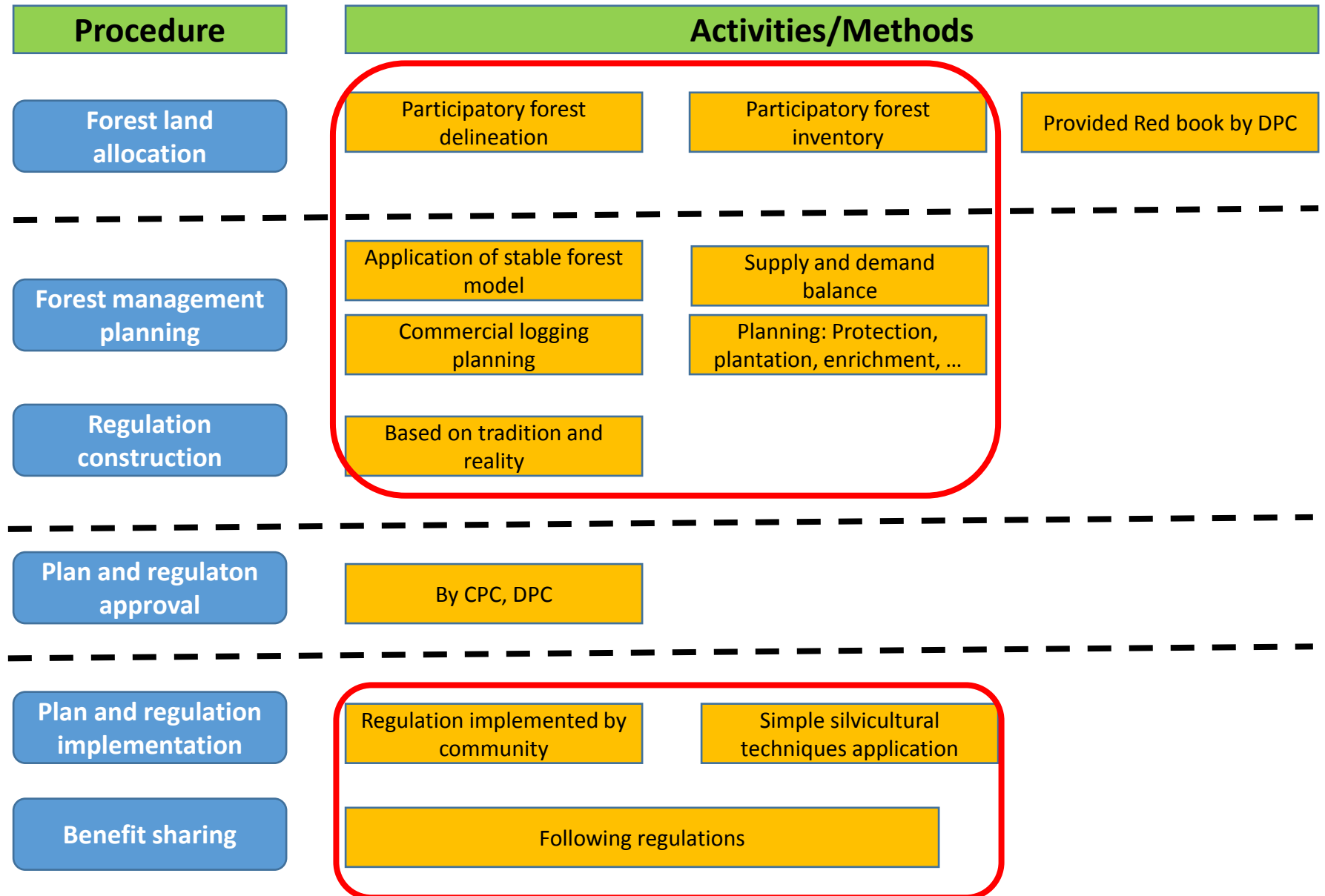Source: Government data from the 14 countries; see annex 1.

Why participatory forest inventory

- To clarify the boundaries of forests allocated to HHs, communities
- The local people can plan their own forest management, develop regulations on protect forests and implement benefit sharing
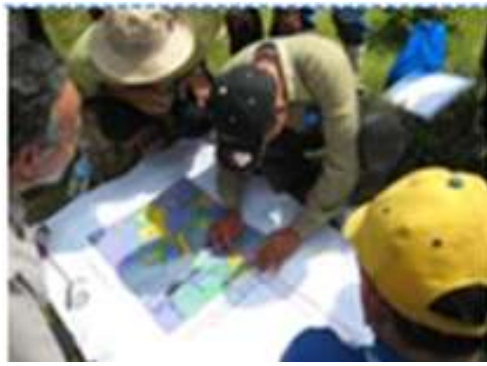
What activities have communities participated in FLA, CFM

Procedure	Activities/Methods

Input:
Appropriate Trainings, consulating field works →

Forest land allocation	Participatory forest delineation	Participatory forest inventory	Provided Red book by DPC

Forest management planning	Application of stable forest model	Supply and demand balance
	Commercial logging planning	Planning: Protection, plantation, enrichment, …
Regulation construction	Based on tradition and reality	

Plan and regulaton approval	By CPC, DPC

Plan and regulation implementation	Regulation implemented by community	Simple silvicultural techniques application
Benefit sharing	Following regulations	

Local people identify border of forest block and name forest block

Local people participate in forest inventory
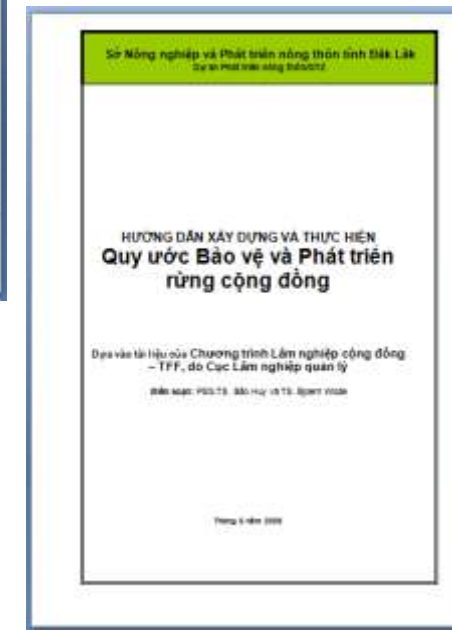
PARTICIPATORY IN FLA/CFM

Implementation of: Commercial harvesting

Local people calculates forest variables

CFM plan, regulation meeting

Red book issue

Policies and guidelines for participatory forest monitoring/inventory

- Circular 38/2007/TT-BNN required participation of HHs, communities in forest land allocation.

- MARD and some PPCs approved Guidelines for Participatory FLA, CFM such as Son La, Dak Lak, Dak Nong, Quang Ngai from 1998 - 2005

- Decision 106/2007 of MARD guides on village forest management in 40 pilots communes
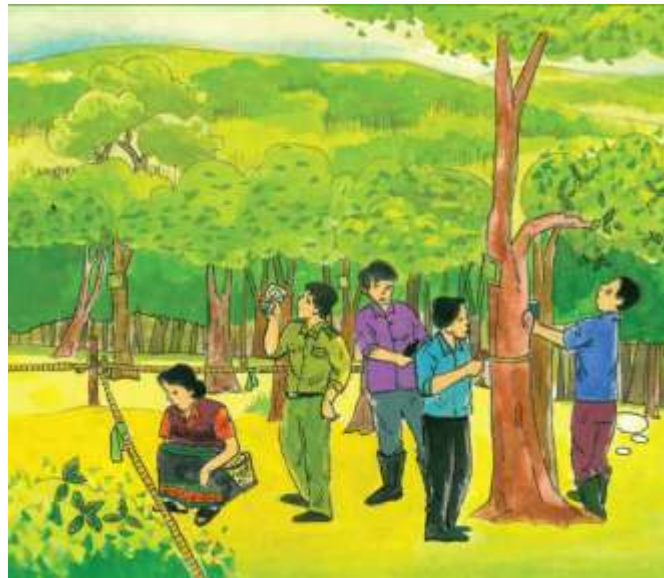
2. Origins of discussions of PCM/PFM in REDD+ in Vietnam

Consensus	Debate
- Following UNFCCC: Required participation of all relevant stakeholders, in particular indigenous people, community - Simple methodology for community - Participatory of communities connected to payment for forest ecosystem services (PFES, REDD+), benefit sharing in FLA, CFM - Participatory forest monitoring linked to livelihood, indigenous knowledge - Involve local people: Lower cost, data updated regularly: Activity data + Emission Factor	- How to link, update the PFM/PCM to NFMS - Harmonization of simple and professional forest inventory - Management, Monitoring system at grass root level - Accuracy, reliability of data collected by local people

3. Studies and pilots of PFM/PCM carried out, and conclusions

UNREDD/FAO (2010 – 2011): Don Duong, Lam Ha Districts, Lam Dong Province Vietnam

SNV – REDD (2011 – 2013): Bao Lam District, Lam Dong Province

UN-REDD PROGRAMME VIETNAM

PILOTING PARTICIPATORY CARBON MONITORING IN VIET NAM

Under REDD+, developing countries like Viet Nam will need to generate evidence of "results-based actions" to receive payments for the reduction of carbon emissions or enhanced removals of carbon. The national Measurement, Reporting and Verification (MRV) system holds the key for producing this evidence. The MRV system needs to record information on activity data (area of forest land) and emission factors (changes in forest biomass).

In Viet Nam, stakeholders are now engaging in discussions for collecting such data at two levels:

Level 1 Through Participatory Carbon Monitoring (PCM) involving participants in the National REDD+ Programme, activity data and emission factors can be collected in a statistically significant number of sample plots;

Level 2 For the comprehensive national data, activity data will be collected primarily through a satellite-based land monitoring system, while emission factors can be based on the data collected for the National Forest Inventory (NFI).

Level 1 data will be limited to basic forest mensuration on forest area and properties (e.g. DBH and tree species). Data collected will amount to a very large and statistically significant number of samples. Up to a million plots can be measured per year, assuming all households managing forests in Viet Nam are engaged as REDD+ participants. The Level 1 data will then be supplemented by Level 2 data, to estimate biomass per management unit and eco-zone.

OBJECTIVES OF PARTICIPATORY CARBON MONITORING (PCM)

There is a strong rationale for engaging local REDD+ participants in data collection, particularly for forests which are managed by local communities or individual households. PCM recognizes and capitalizes on the potential of local people's knowledge and skills. It is also considered an important mechanism for REDD+ for the following reasons and values it adds (Skutsch M. and McCall M.K. (2011)):

- Changes in carbon stocks in managed forests over a typical accounting period will likely be too small to be detected accurately by remote sensing from satellites. The National Forest Inventory will collect highly accurate data, but with insufficient resolution in space and time to properly capture local changes in biomass. Changes will need to be measured on the ground in a dense pattern to reach an acceptable accuracy.

- Mobilizing communities can be more cost-effective compared to the use of professional surveyors in conducting ground-based surveys.

- Community's understanding of carbon monitoring will work as an incentive to promote further improvements in forest management, thereby securing further carbon payments.

- Community's engagement in carbon monitoring will increase the likelihood that carbon payments received at the national level will be distributed down to communities at the local level.

Within the UN-REDD Viet Nam Programme, PCM is being explored as a methodology and piloted in two districts in Lam Dong Province.
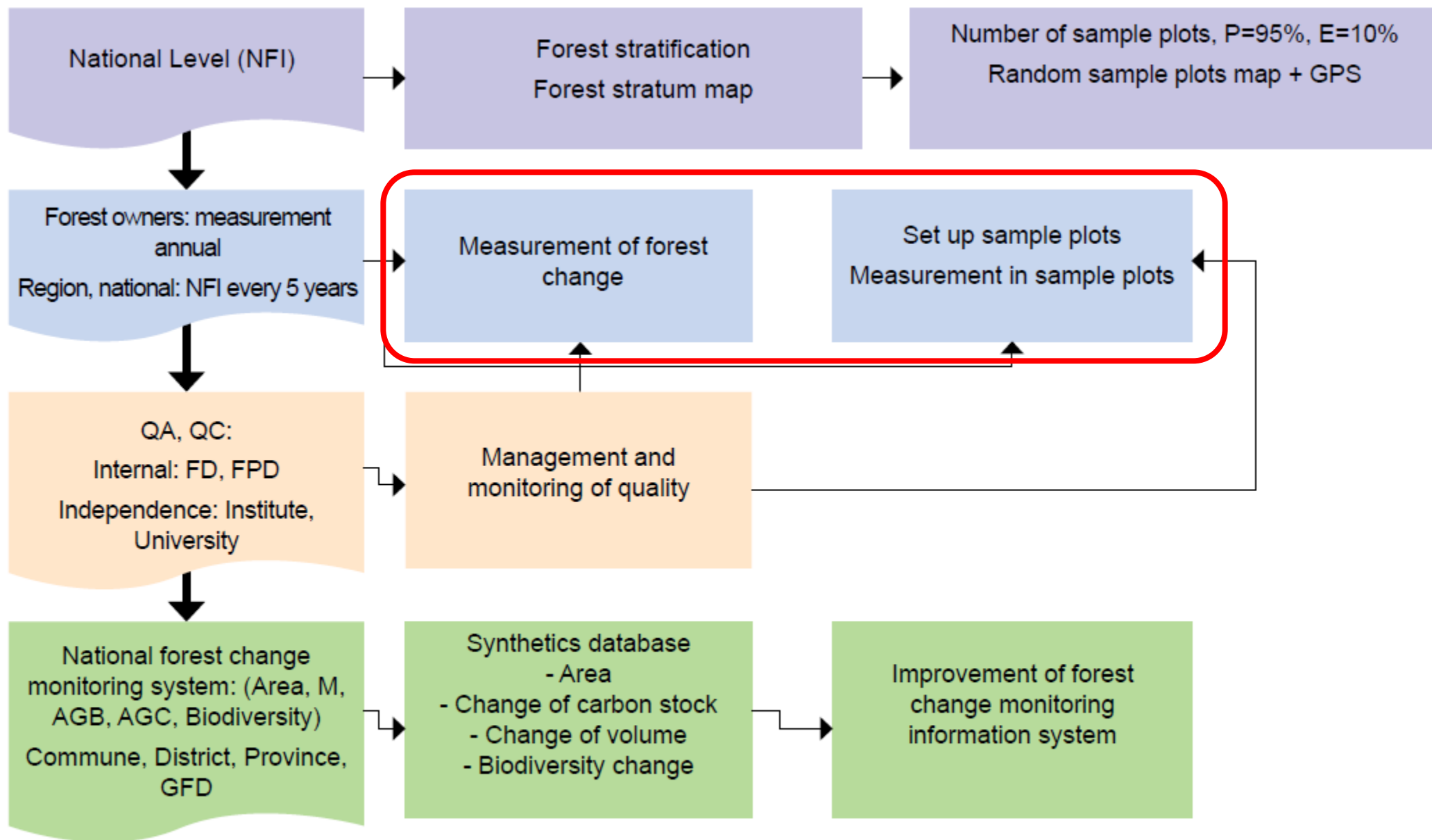
Figure 1. System of measuring, monitoring and reporting forest resources, biomass and carbon (integrated in PCM and the national system)

Training in PFM/PCM for local staffs and people

Figure 7. Location of random sample plots in the three communes of Lộc Bảo, Lộc Bắc and Lộc Lâm, Bảo Lâm District, Lâm Đồng province

Monitoring forest area change

Figure 17. Determine position of random sample plot using the GPS

North

17.84m

12.62m

5.64m

1m

Measure all timber tree with DBH ≥ 42cm

Measure all timber tree with DBH ≥ 22cm

Measure all timber tree with DBH ≥ 6cm

Measure all timber tree with DBH ≥ 6cm and count regeneration tree with DBH < 6cm and H ≥1.3m

Figure 19. Measure diameter class according to radius of sample plot.
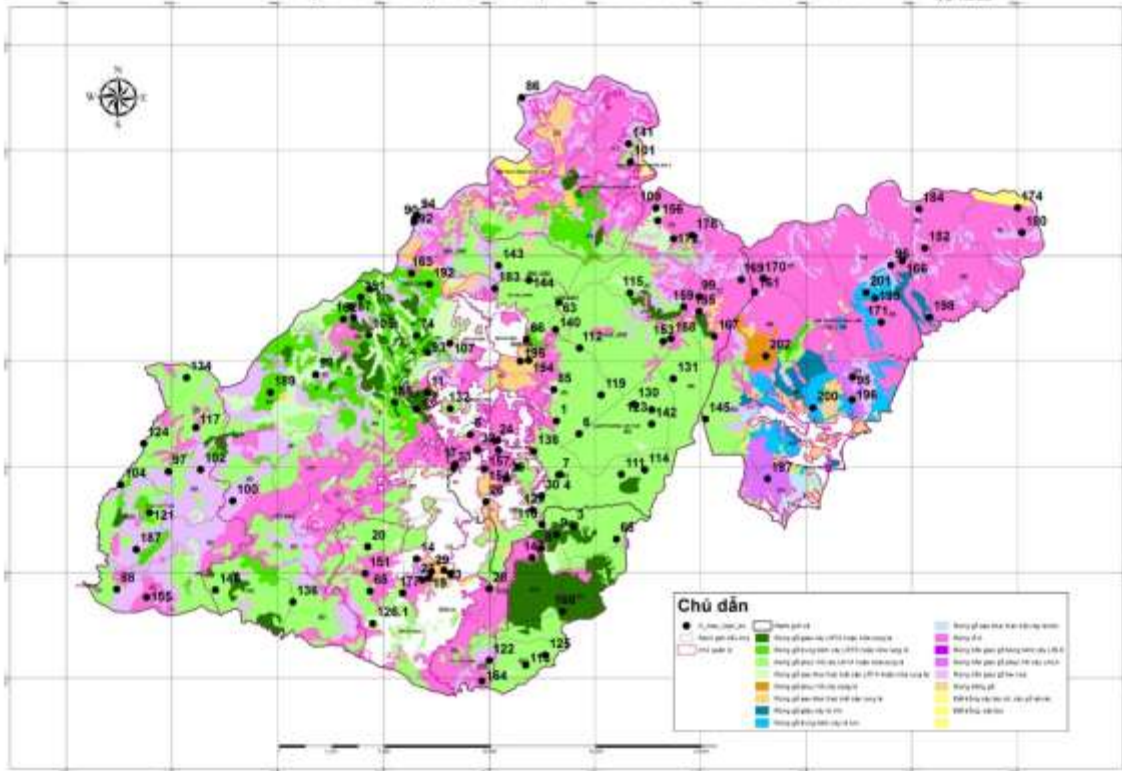
Synthsis of field data

SNV PFM/PCM pilot results

- Location of pilot: Three communes Loc Lam, Loc Bac and Loc Bao, Bao Lam District, Lam Dong Province – Area = 35,000 ha

- Time: 2011 - 2013

- Establised 11 teams of local people (5 persons in each team)

- Training on PFM/PCM for 60 persons including local staffs, people who get contract for forest protection with Forestry Company Loc Bac

- 124 sample plots were inventoried by 11 teams.

- Forest variables, carbon biomass of 124 sample plots were calculated.

- Average tree density, biomass and carbon for each forest type and forest status of the project area were calculated.

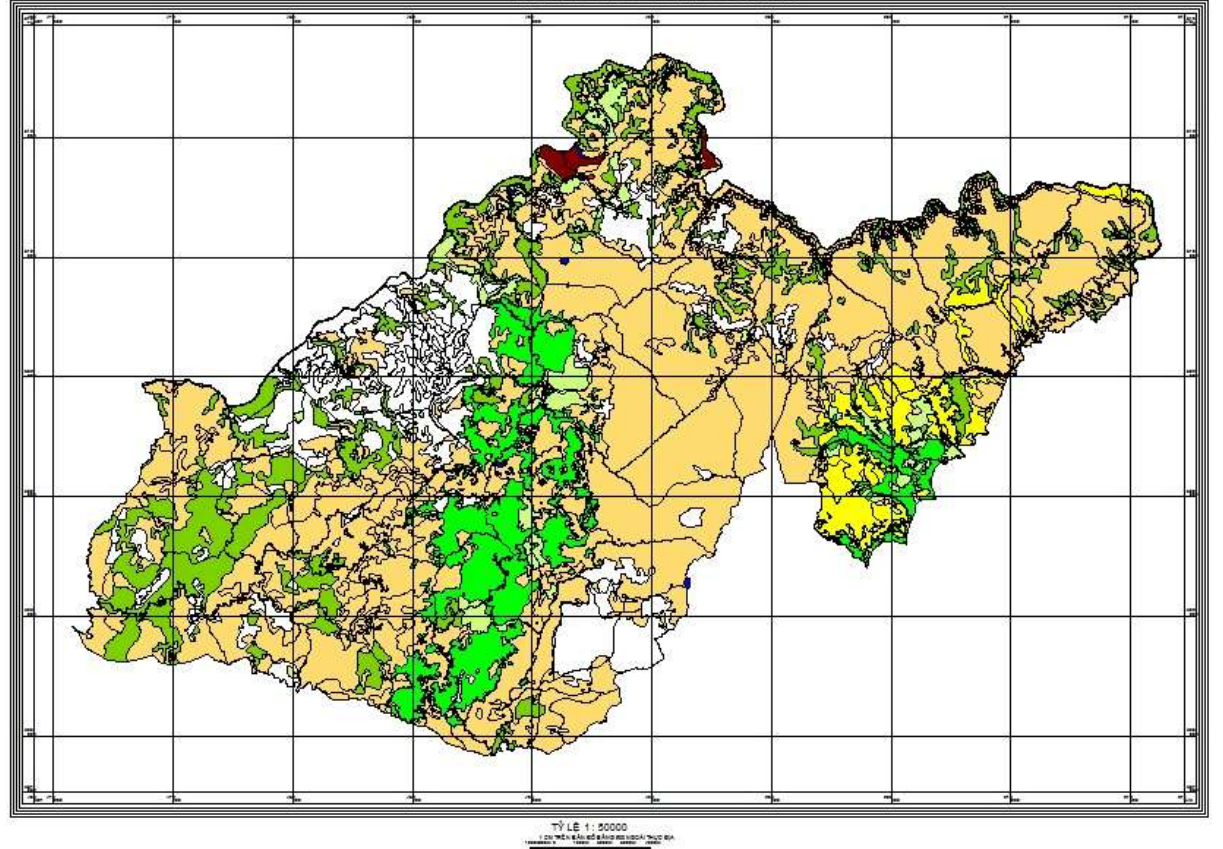- Database of forest resources, forest carbon associated with the map in MapInfo were set up.

BẢN ĐỒ PHÂN BỐ Ô MẪU
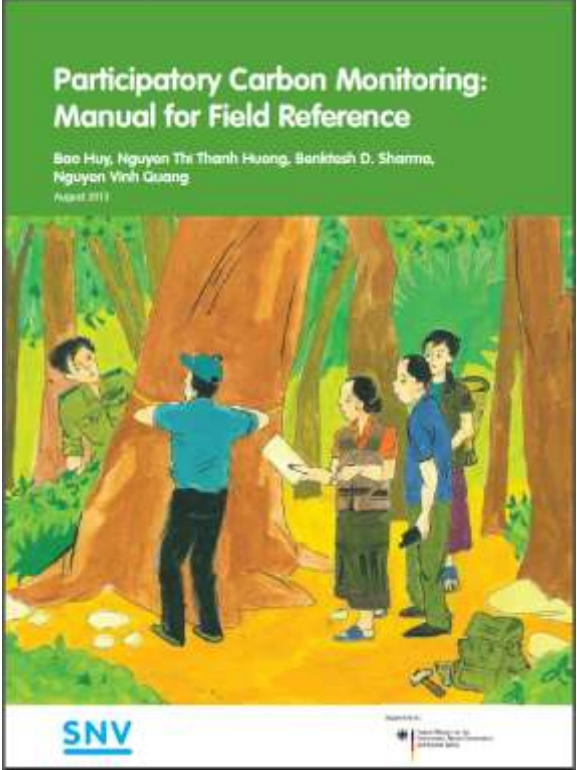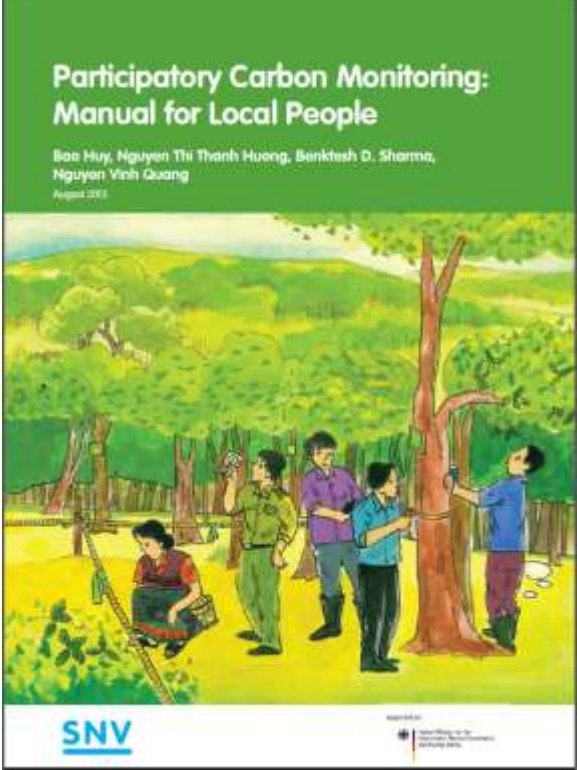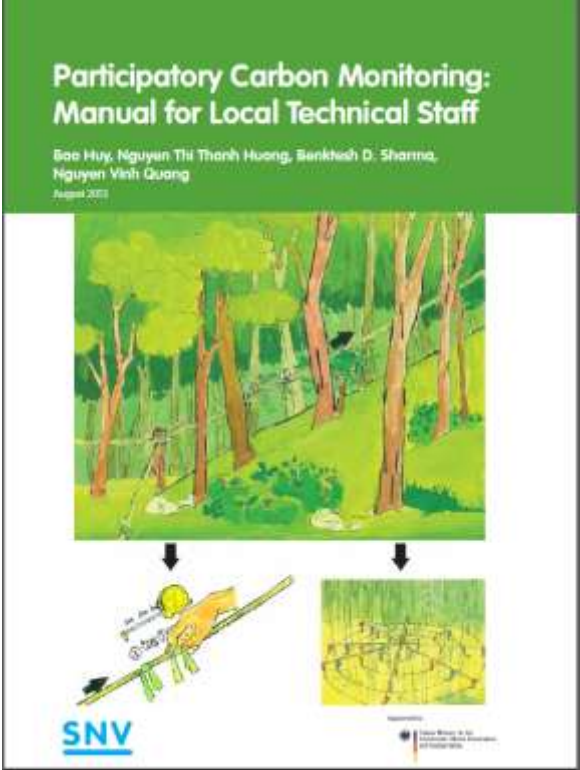X. LỘC BẢO, X. LỘC BẮC, X. LỘC LÂM - H. BẢO LÂM - T. LÂM ĐỒNG

Chú dẫn

Map of permanence random sample plots in Bao Lam District

BẢN ĐỒ HIỆN TRẠNG RỪNG VÀ BỐ TRÍ Ô MẪU
KHU VỰC THÍ ĐIỂM PCM/PFM
H. BẢO LÂM - T. LÂM ĐỒNG

TỶ LỆ 1 : 50000

Map of carbon sequestration in Bao Lam District

Guidelines for PFM/PCM in Vietnam

Conclusions of PFM/PCM pilots

Strengths	Weakness/Constraints
▪ Method met the scientific requirements and was enough simple for technical staff local and local people. ▪ Indigenous/field experiences knowledge supported to PFM/PCM ▪ With 10% sample plots validated by professional: Average deviation was lower 5%	▪ System of data updating and managing has not yet set up ▪ Responsibilities, rights, benefit/compensation of the local people involved in PFM/PCM has not yet mentioned

4. Motivations of local people involved in these PFM/PCM studies

- Local people are interested in managing their forests (Contract or Red book)

- Expectation to be compensated the forest carbon stock management through forest ecosystem services payment regulations.

- It is the opportunity to monitor their own traditional forests

5. Difficulties in incorporating participatory approaches into a national MRV system for REDD+ in Viet Nam

- Traditional forest inventory system: Only to be taken by forest professional agencies

- Bias against accuracy of data collected by local people

- System of data updating and managing from grass root level has not yet set up

- Responsibilities, rights, benefit/compensation of the local people involved in PFM/PCM has not yet mentioned

6. Risks of PCM/PFM exercises in spreading unclear messages about REDD+

- Expectation of local people for Carbon payment
- Ownership of forest against benefit of carbon credit payment, compensation.
- Ownership of forest belongs to state company against duty of local people for forest monitoring.

7. Reaching consensus on PFM for monitoring non-carbon impacts of forestry interventions

- National forest inventory system should involve, connect to PFM/PCM
- Efficiency of using indigenous knowledge for forest inventory
- Local people involved: Low cost (No Transportation, accommodation)
- Recognize accuracy, reliability of PFM/PCM if there are appropriate training
- Generation of the job, compensation for the Poor
- 30% forest land (mainly poor forest) allocated to HHs or Community – PFM/PCM will support local people to self manage their forests and give them more opportunity to generate new income from forest management.

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