

Propose the way of incorporating provincial forest inventory data into national database

At MRV STWG
31 Aug. 2012

Dien Bien REDD+ Pilot Project
JICA Project Team
Kei SUZUKI
Megumi SAITO

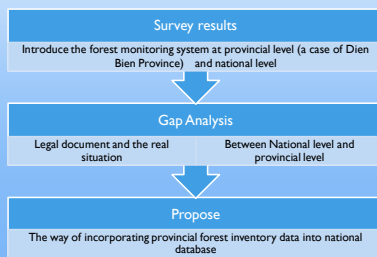
1

Outline

- I. Objective
- II. Background
- III. Questions
- IV. Results of the survey
- V. Proposed MRV system

2

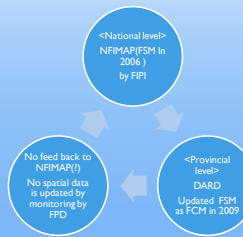
I. Objective



3

II. Background

Current situation



4

Problems of AD for REDD+

- AD for REDD+ is required annual land use changes based on approach 3 of IPCC through primarily remote sensing data
- VN has mainly two forest inventory data system, NFIMAP by FIRI (every 5 year) and Forest Monitoring System by FPD (annual)
- To achieve IPCC requirement, annual report is important while they are not consistent.
- In addition, accuracy of the Forest Status Map as an output of NFIMAP has limitation of the scale at national level (1:250,000) to sub-national (1:50,000), not at commune level (1:25,000).
- So province (DARD) updated the FSM, so called Forest Cover Map in 2009 for forest management at commune level (1:25,000) through hiring consultant of CIFIC.
- However, monitoring by Sub-FPD in the province does not mean to update spatial data but only aggregate statistics data to report as National Forest Statistics.

III. Questions

- A) What is the existing forest inventory system at national and provincial level?
- B) What are their relations?
- C) What are the gaps?
- D) What is the technical issues and important aspects for future designing of forest inventory system for REDD+?

5

IV. Survey Results

Question A.

What is the existing forest inventory system at national and provincial level?

6

Existing Forest Monitoring System of Provincial Level (Dien Bien Province)

PROVINCE

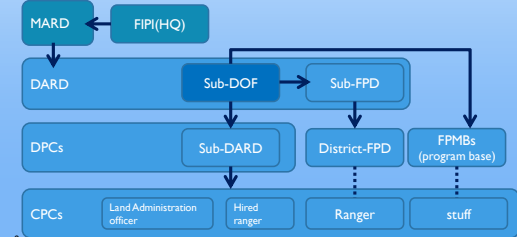
- Data
 - Forest Status Map in 2006
 - Forest Cover map in 2009
 - Paper based /Digital based(only province and district FPD)
- Monitoring
 - Violation of forest (illegal cutting, forest fire)
- Reporting
 - Many routs from village levels

7

NFIMAP Data (Dien Bien Province)

PROVINCE

- Forest Status Map in 2006 (NFI)
 - Responsibility: SubDoF

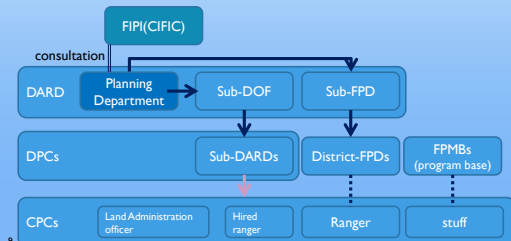


8

Updated Data by Dien Bien Province

PROVINCE

- Forest cover Map in 2009 updated by DARD
 - Responsibility : Planning Department of DARD

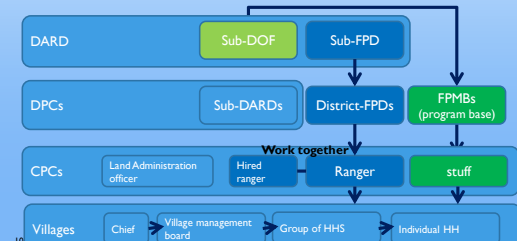


9

Monitoring system (Dien Bien Province)

PROVINCE

- Leading agency: FPD (Forest Protection Department)
 - Instruct monitoring violation of forest (illegal cutting, forest fire) and education

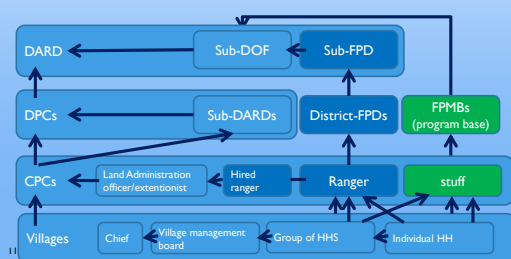


10

Reporting system (Dien Bien Province)

PROVINCE

- Leading agency: FPD (Forest Protection Department)
- Reporting forest violation(illegal cutting, forest fire)



11

Problems of the system (Dien Bien Province)

PROVINCE

- Issues of the data
 - Latest FCM in 2009 is not fully distributed to communal rangers(FPD and CPCs) nor the villages.
 - Violation is not recorded on the paper map (memory use) nor digital map (only statistical data)
- Issues of the accuracy of monitoring
 - Forest Owners are not fully identified (ranger cannot hear information)
 - Less capacity: 2 rangers(FPD, CPC)/commune cannot cover one commune
 - No equipment of measuring (handy map, GPS)
 - Less capacity to deal with GPS
- Low daily allowance of rangers

12

Land/Forest Classification issue (Dien Bien Province)

PROVINCE

- Issues of identifying FOs
 - Allocated land = unit of land use (MONRE)
 - Compartment/ sub-compartment = unit of forest status (MARD)
 - Village is the lowest level of organization that is using two kinds of land/forest classification
 - Difficulty of BDS to identify where to reinverse
- NFI&S is under pilot implementation to identify each FO of each forest status

13

IV. Survey Results

Question B

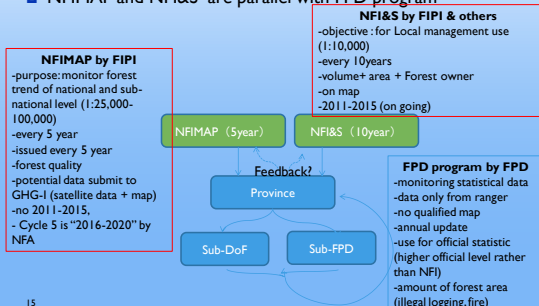
What are their relations between national and province?

14

Existing Forest Inventory System

NATIONAL & PROVINCE

- NFIMAP and NFI&S are parallel with FPD program



15

Relationship between NFIMAP and NFI&S

NATIONAL

NFIMAP (Map and inventory data/every 5 year)		NFI&S (Map and statistic data/every 10 year)	
1981-1983	1st forest inventory	1990-1992	Only map
1991-1995	Cycle 1	1997-1999	1 st statistical data with map
1996-2000	Cycle 2		
2001-2005	Cycle 3		
2006-2010	Cycle 4		
2011-2015	-	2010-2015	2 nd On going (done: 2pilot in 2012) (plan: 5 pilot in 2012-2013)
2016-2020	Cycle 5 (Under planning (by NFA project))		

16

NFI & S (Pilot implementation by FIPI & VFU)

NATIONAL

- NFI&S (2011-2015)
 - The implementation has just finished at Bắc Kạn and Hà Tĩnh province in 2012. 5 provinces are planned to be implemented in 2012-2013, every provinces will be finished by 2015.
 - Forest cover map (using SPOT) + data
 - Forest volume stock (map and table), using random sampling plot
 - Specify boundary of forest owner (use land allocation map and table by DONRE), measure area of each forest type per forest owner.
 - Develop new data management system

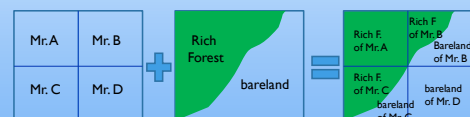
17

Responsible by FIPI

Responsible by PPC

Identification of Forest Owner (NFI&S)

NATIONAL



Management unit	Forest Status unit	Status Plot
land allocation (DONRE)	Compartment, Sub-compartment (MONRE)	(NFI&S)

18

NFA project (FAO/FPI)

NATIONAL

- NFA project deal with NFIMAP(2016-2020, cycle 5)
 - Permanent sampling plot (improved)
 - Different stratification between national and local level
 - Indicators are planned to be added which reflects the needs of province ⇒ Possibilities to be user-friendly for provinces (?)

19

IV. Survey Results

Question C.

- What are the gaps?

20

Gaps

NATIONAL &
PROVINCE

	NFIMAP	NFI&S	FPD program	finding
Forest Status Map	Every 5 year 1:50,000~250,000	-2nd Survey 1:10,000 -to monitor local management purpose -Pilot ongoing and under discussion of linking to NFIMAP -based on FPD program	-Based on NFIMAP -Upgrade by DARD afterwards -No feed back to NFIMAP -No update -No digital data -Statistical data does not link to NFIMAP	NFI&S has capacity to incorporate with FPD program and NFIMAP
Data unit	Permanent Sampling Plot	Forest owner + Forest status	Forest status at compartment and Sub-compartment	FPD program has problem with management unit when distributing budget for programs, PFES and REDD.
Management unit	unknown	Forest owner + Forest status	Land/Forest allocation to HH/village/organization	

21

V. Proposed MRV system

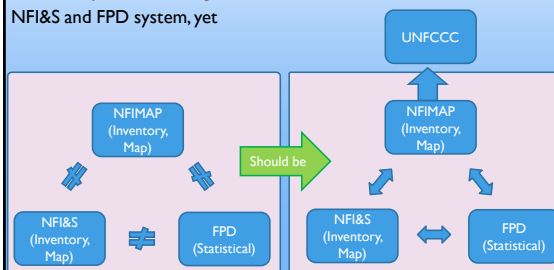
NATIONAL &
PROVINCE

- Incorporation between National and provincial system
- Province contribution to national (AD)
 - QA/AC of NFI: every 5 year cycle of NFIMAP is verified annually by DARD through improving accuracy of monitoring forest area and status change by developing database system and digitalization of forest monitoring at scale 1:25,000 (commune level)
 - Identify the actual Forest Owners and its boundary in advance to NFI&S

22

Diagram of relationship between national and province

- No cooperation among NFIMAP, NFI&S and FPD system, yet



23

Technical issues and important aspects

- Technical issues
 - Capacity building (FPD rangers, Sub-FPD officers)
 - Equipment (database for MRV and PFES)
- Important aspects
 - Institutional cooperation
 - Involving agencies and leading agencies
 - Collection of required data
 - Forest area, Forest owner, Forest Status, Volume
 - Harmonization with PFES
 - Benefit allocation system (Forest Protection and Development Fund)
 - Collection of required data

24