INITIAL IDEA FOR REDD+ EMISSION REDUCTION PROGRAM IN VIETNAM

Presented at the 4th FCPF Carbon Fund

Santa Marta, Colombia

24-25 June 2012

Overview

1. Vietnam at glance and its strategic point of view on responding to climate change

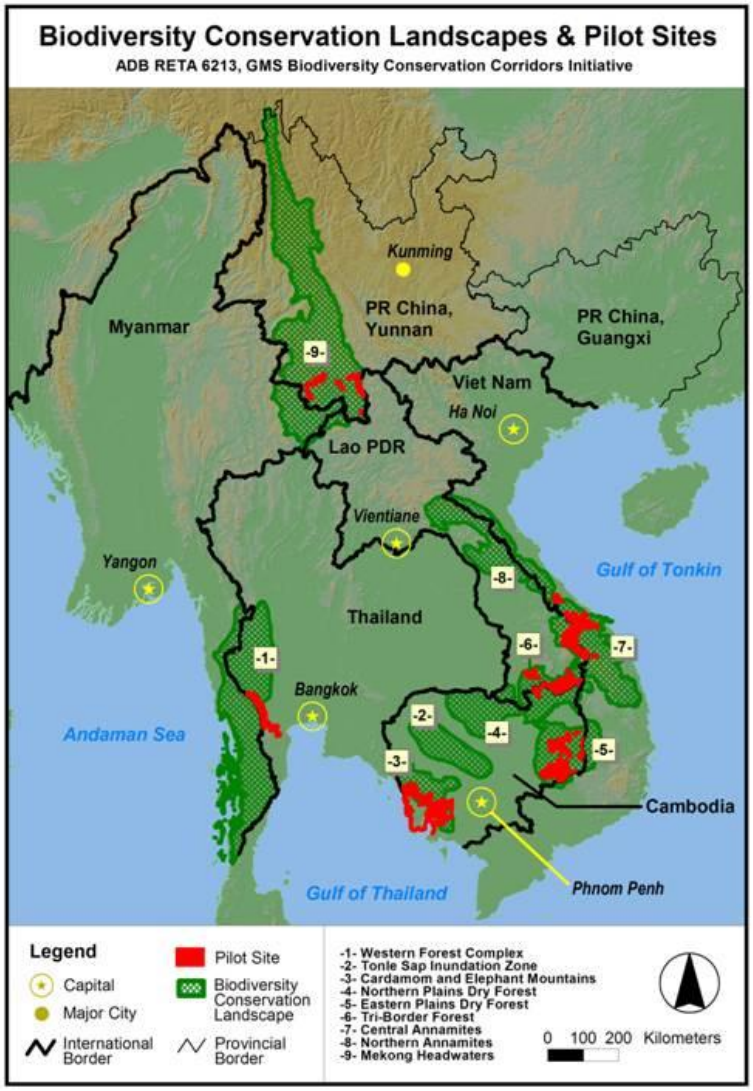
2. National CC/REDD+ policies and ER ambition

3. How ambition for reducing emissions will be obtained, especially for REDD+?

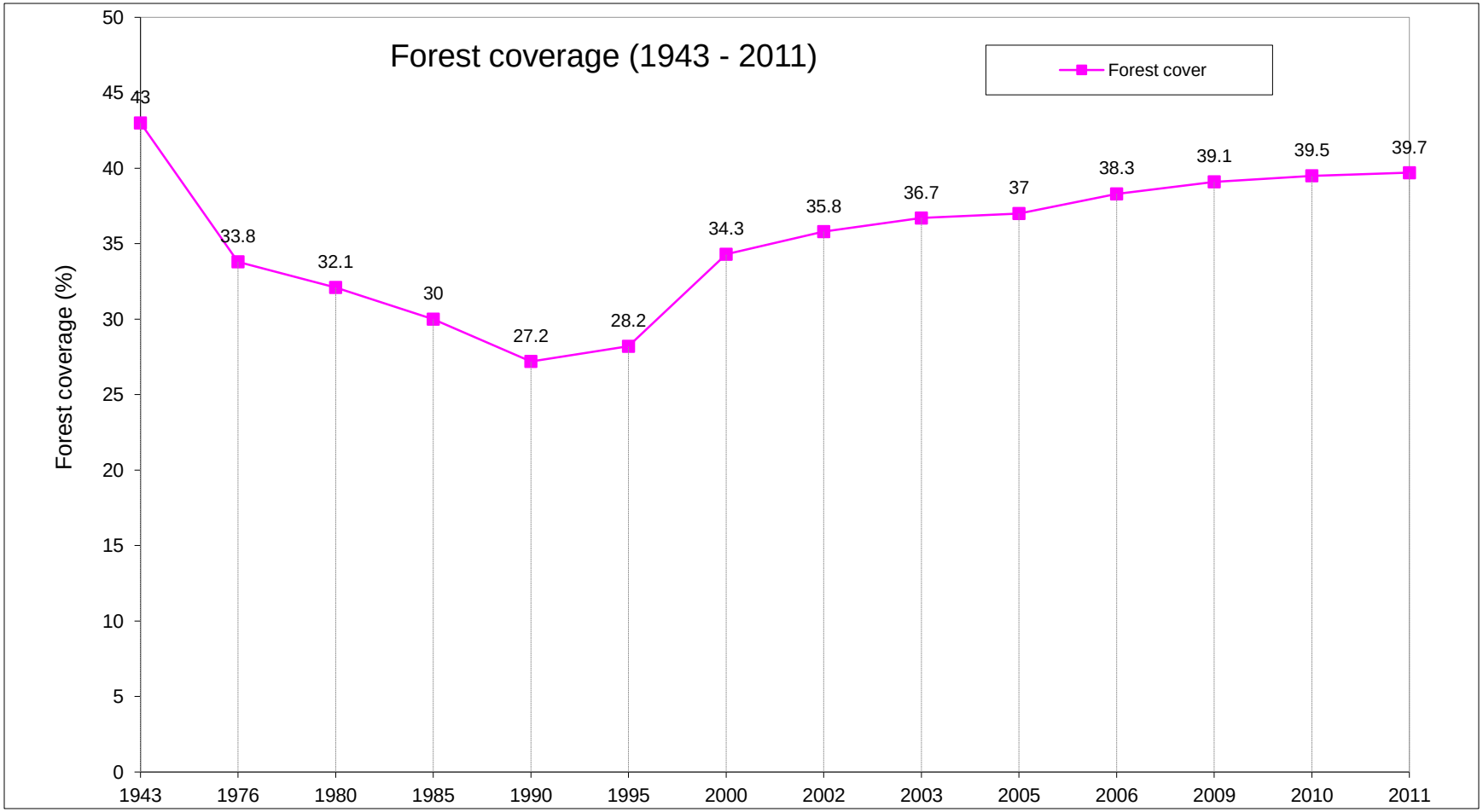
1. Vietnam at glance and its strategic point of view on responding to climate change

Vietnam at glance

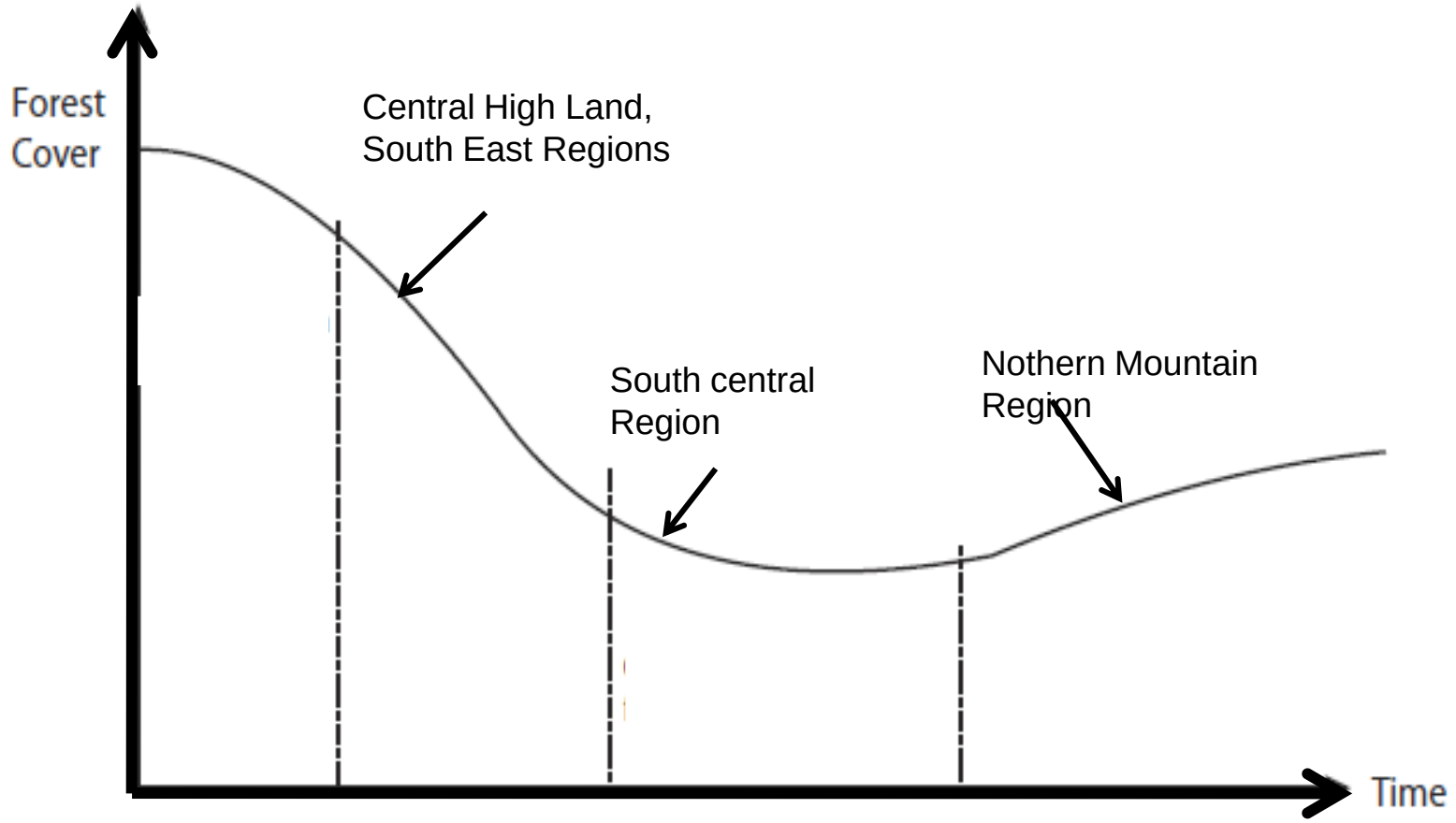
- Located in SEA
- **Total land mass:** 33 million Ha, of which ¾ are hills& mountains
- **Population in 2010:** 87 mill, of which 70% lived in rural areas and livelihoods rely on agricultural cultivation
- **Forestland:** 16.24 million ha; Forest coverage in 2011: 39.7% land mass



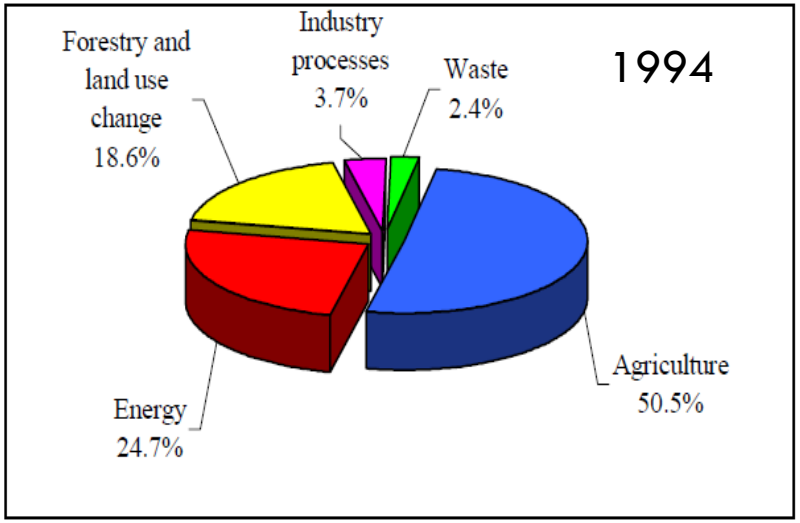
Change in national forest coverage (1943-2011)



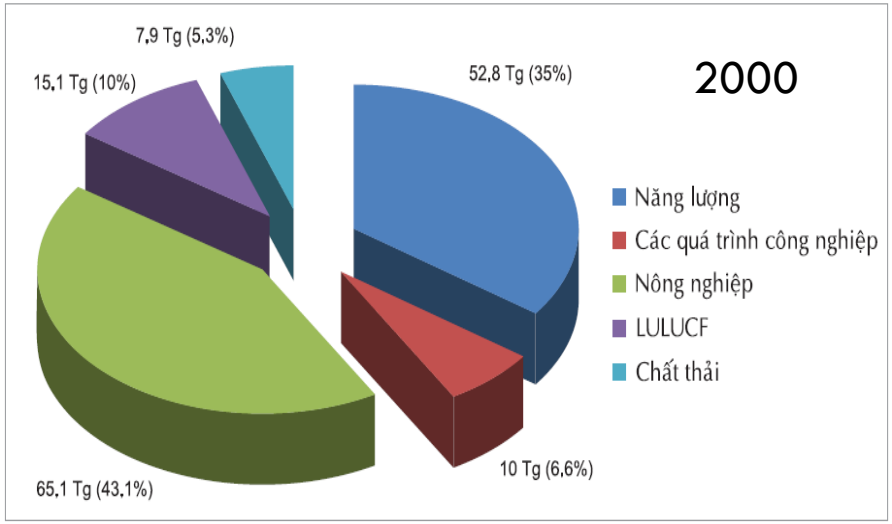
Dynamics of forest cover change in Vietnam



General information on National GHG



- Total emissions: 103.8 mill. tonnes CO_2e
- Agriculture: 50.5%
- Energy: 24.7%
- LULUCF: 18.6 %
- Agri + LULUCF=69.1% (71.8 mill. tonnes)



- Total emissions: 150.8 mill. tonnes CO_2e; 1.94 tons/person
- Agriculture: 43%
- Energy: 35%
- LULUCF: 10%
- Agri + LULUCF=53% (60.2 mill. tonnes)

Source: National Communications

Strategic point of view on responding to CC

- Climate change is the most challenging issue and heavily influences to global development.
- Effective and timely response to CC is indispensable to ensure sustainable development.

- Vietnam is willing to take parts in the international efforts to protect global climate system by conducting both adaption and mitigation actions; adaption actions are prioritized for the first period.

- CC actions should be suitable to national circumstances and international process, with active participation of all relevant stakeholders, using a combination of solid scientific and economic foundation, traditional knowledge; with the provision of international support.

2. National CC/REDD+ policies and emission reduction ambition

Key climate change & REDD+ policies

- National Climate Change Strategy (Decision 2139/QD-TTg of Prime Minister dated 05th Dec 2011);
- National REDD+ Action Plan (NRAP);
- National Green Growth Strategy (draft was presented at the Rio)

Ambition of reducing emissions

- To ensure low-carbon and green development, food & energy security, SD
- Reducing emission reduction will become a compulsory requirement for all economic sector;
- In agricultural sector: to promote green agricultural development; every decade, reduce 20% GHG emissions, growth rate 20% and reduction of poverty rate by 20%; protecting existing forests, promoting reforestation and afforestation, increase in forest coverage 45% total land mass by 2020;
- **Role of forestry sub-sector:** reduces GHG emissions from DD and enhances removals from agricultural pratices - estimate: 19 million tons CO_2e

3. How ambition for reducing emissions will be obtained, especially for REDD+?

Adopting suitable approaches

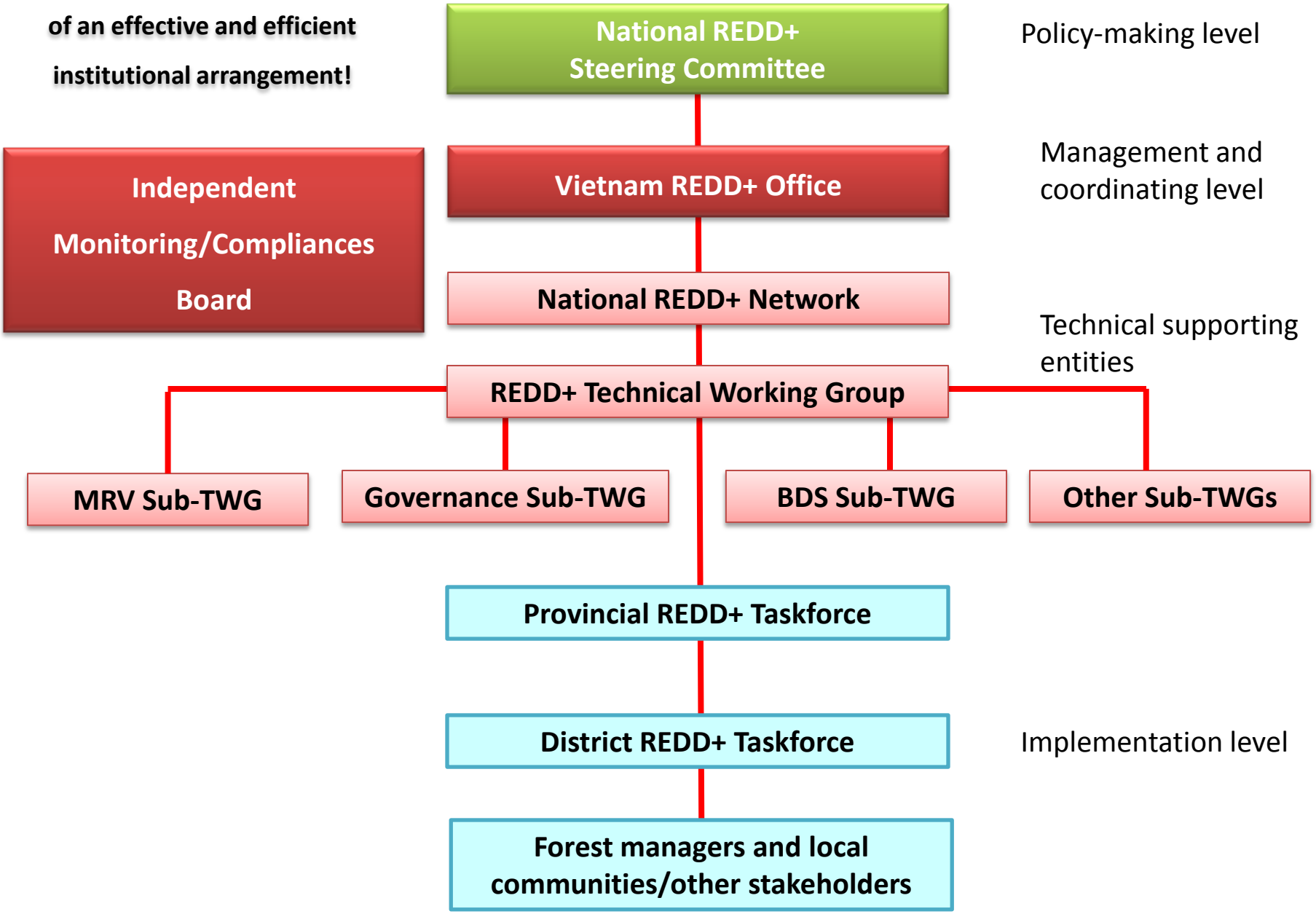
- Comply with UNFCC principles and guidance
- Step-wise, learning-by-doing to reduce uncertainties and allow scaling up, 2 sub-periods: 2012-2015, 2016-2020 and onwards. From 8-10 provinces will be selected to carry out full-scale of REDD+ demonstrations in the period from 2012-2015;
- Landscape and ecosystem approach: not only silvicultural practices and fencing forests
- Enabling environment: consistent strategies and supported by other policies/program; effective and efficient institutional arrangement; etc

Supporting policies

GHG mitigation actions require close cross-sectoral coordination and synergies. In addition, REDD+ is one of many measures to reduce emissions from/by forests. Therefore, successful implementation of the REDD+ ER Program needs a series of supporting policies. Key policies are:

- National Program on GHG emission reduction in agriculture and rural development sector for period from 2011-2020;
- National Action Plan on forest protection and development for the period from 2011-2020;
- National Policy on Payment for forest environmental services (PFES);
- National policy on SFEs reform with support from GIZ and WB
- National Target Program on Rural Development, Poverty Reduction, and the National Program on fast and sustainable poverty alleviation in 62 poorest districts.

It is very crucial for development of an effective and efficient institutional arrangement!



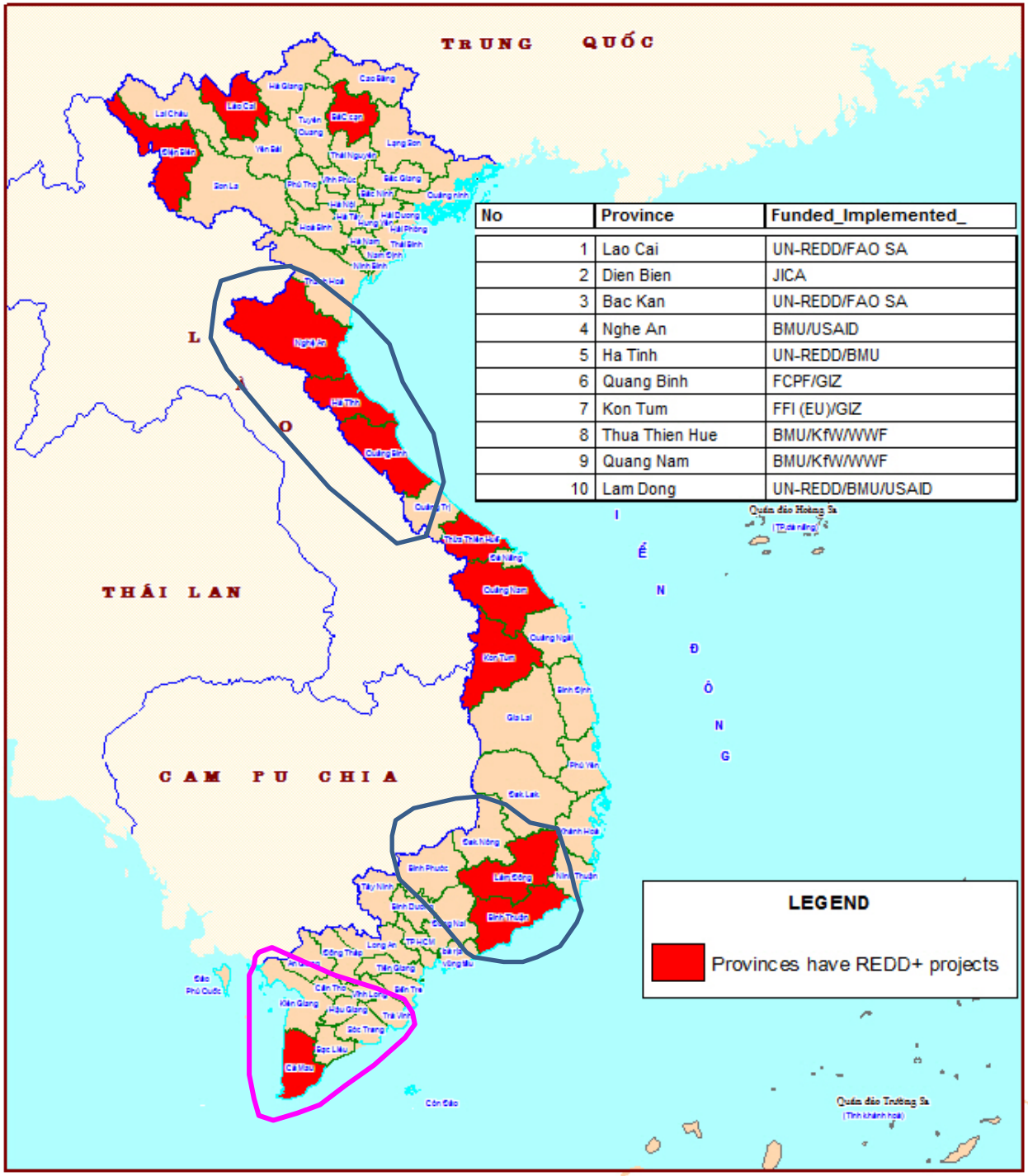
Key REDD+ Readiness Related Projects

- UN-REDD Vietnam Program Phase 1
- REDD Readiness (R-PP) funded by FCPF
- BMU-funded "Exploring mechanisms to promote high biodiversity conservation through REDD+"
- BMU-funded "Advancing understanding on C stock enhancement"
- UN-REDD Vietnam Program Phase 2: two parts (TA & provision of PI)
- USAID "Low emissions from Asian Forests – LEAF": target of 16 mill CO_2e
- USAID-funded "Vietnam Forests and Delta Program: 2012-2017"
- EU/FAO "Climate Smart Agriculture"
- JICA-funded "Dien Bien REDD+ Pilot Project"
- GIZ – AusAID "Climate Change and Coastal Ecosystems in the Mekong River Delta"
- Vietnamese-German Forestry Prog: Support for SFEs reform and SFM

Selection of suitable sites for REDD+ ER Program

- Potential of GHG ER
- Commitment of local authorities and capacities of relevant stakeholders
- Close collaboration with different international partners and government programs
- Minimizing risk of reversal and displacement, including regional displacement

ER Program will consist of a group of continuous provinces and some separate provinces (fig and numbers will be provided)



No	Province	Funded_Implemented_
1	Lao Cai	UN-REDD/FAO SA
2	Dien Bien	JICA
3	Bac Kan	UN-REDD/FAO SA
4	Nghe An	BMU/USAID
5	Ha Tinh	UN-REDD/BMU
6	Quang Binh	FCPF/GIZ
7	Kon Tum	FFI (EU)/GIZ
8	Thua Thien Hue	BMU/KfW/WWF
9	Quang Nam	BMU/KfW/WWF
10	Lam Dong	UN-REDD/BMU/USAID

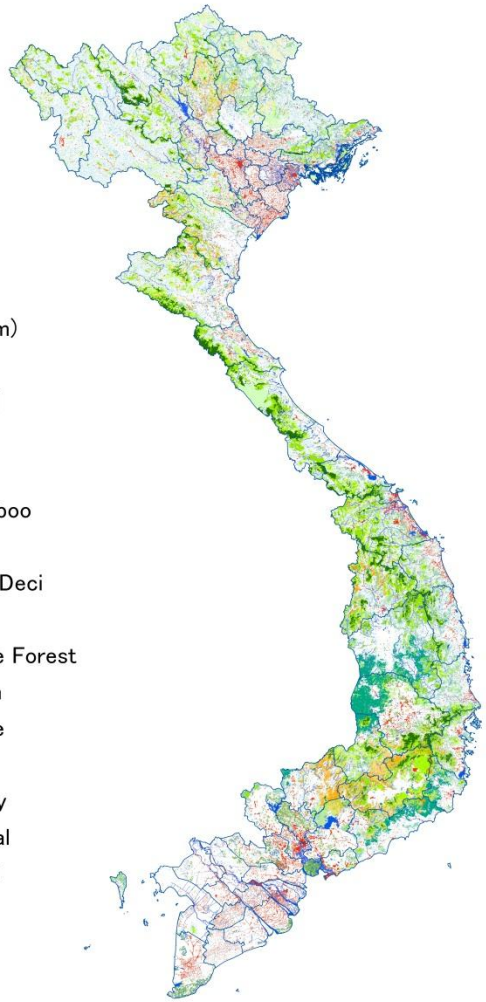
Implications for ER Program

- **Use of mixed investment in ER:** Government progs and donor-supported projects
- In line with investment in ER in agriculture and other sectors
- **Timeline:** overlap between the REDD+ readiness and provision of positive incentives (ER prog); eg. expected in late 2013 by UN-REDD Vietnam Prog Phase 2

Development of rigorous RELs/FRLs

- Historical NFI data for 5 time points: 1990, 1995, 2000, 2005 and 2010 was improved by using RS imagery and data screening with support from JICA and Finland;
- Interim National REL/FRL are developed based on the improved NFI data (both forest maps and field measured data from a system of sample plots; 2015: 331MCO_2e tonnes
- Interim REL/RL sub-national level and ER Program will be developed using the NFI data and improved data (if it is needed);
- Vietnam has presented REL/RL experiences at SBSTA Expert Meeting in Nov 2011 and 36th Section of SBSTA May 2012;

Forest Distribution Map 1990



N

Legend

Forest Type

- 1 Eve(Rich)
- 2 Eve(Medium)
- 3 Eve(Poor)
- 4 Rehabilited
- 5 Deciduous
- 6 Bamboo
- 7 Mixed bamboo
- 8 Coniferous
- 9 Mixed Eve_Deci
- 10 Mangrove
- 11 Limestone Forest
- 12 Plantation
- 13 Limestone
- 14 Bareland
- 15 Waterbody
- 16 Residential
- 17 Otherland

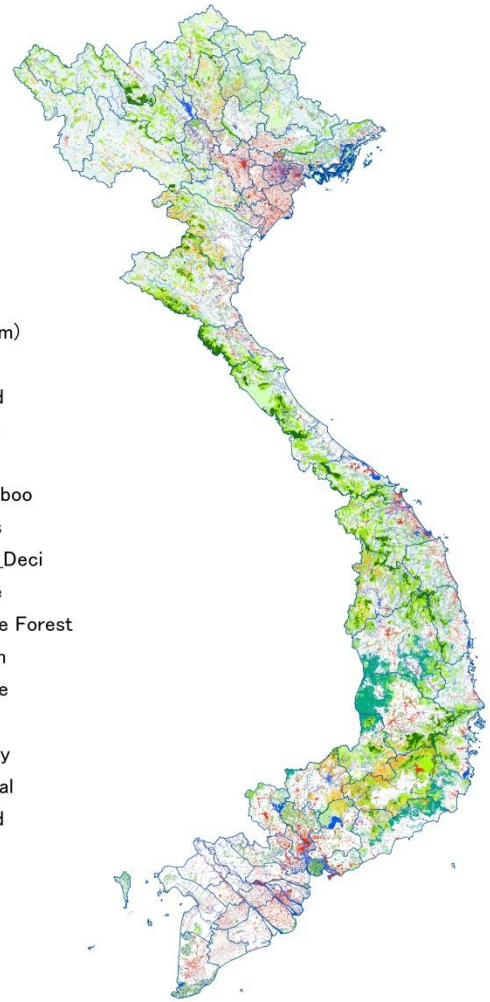
1:2,000,000

0 75 150 300 450 600 (Km)

The Study on Potential Forests and Land Related to "Climate Change and Forests"

JICA JOFCA JAFTA

Forest Distribution Map 1995



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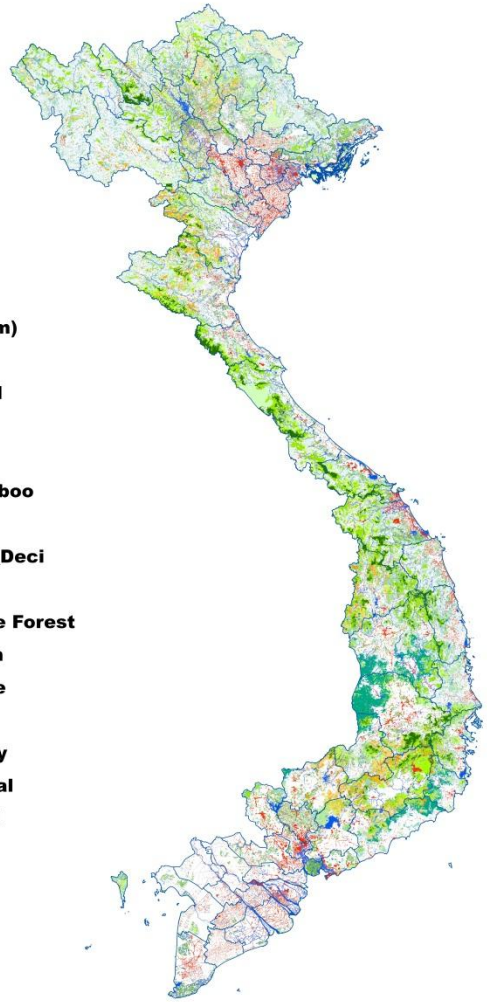
Forest Distribution Map 2000



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The Study on Potential Forests and Land Related to "Climate Change and Forests"

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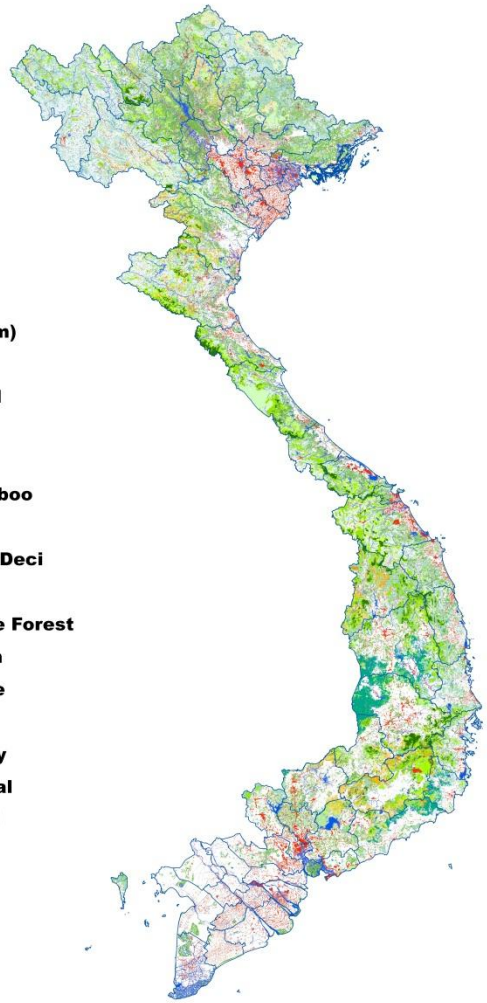
Forest Distribution Map 2010



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Legend

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1:2,000,000

0 75 150 300 450 600 (Km)

The Study on Potential Forests and Land Related to "Climate Change and Forests"

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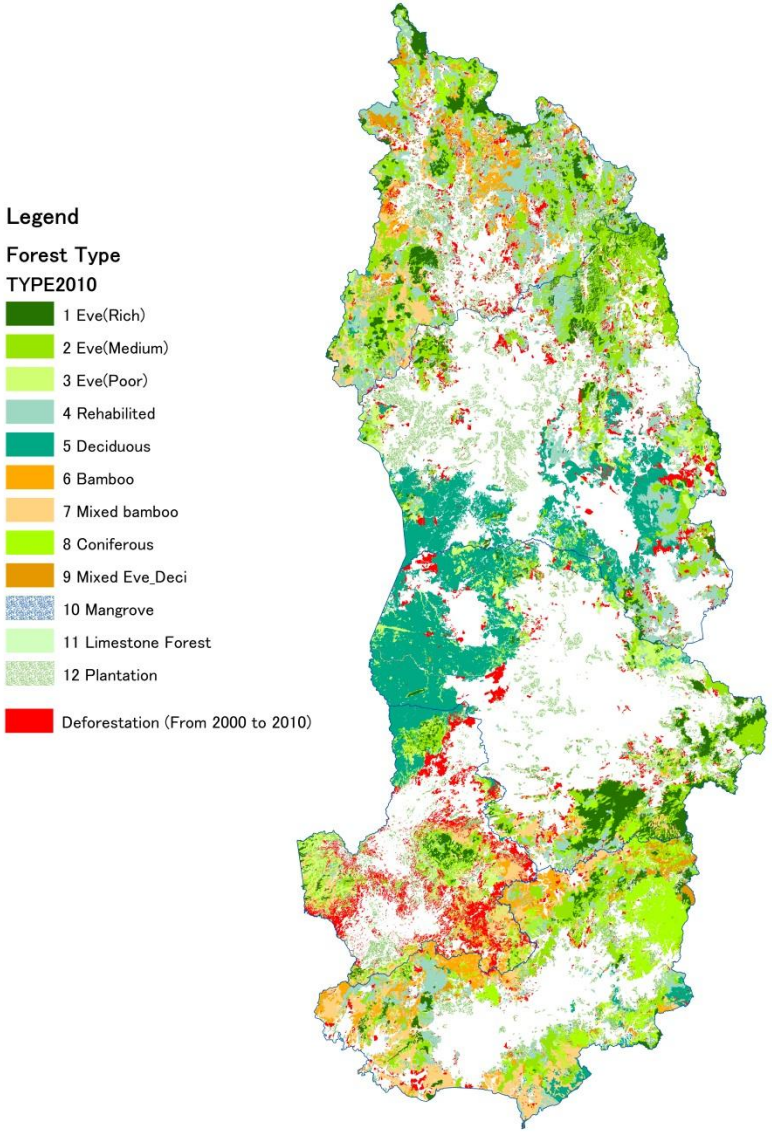
Forest Type Change Map 2010
Central Highland (Deforestation)



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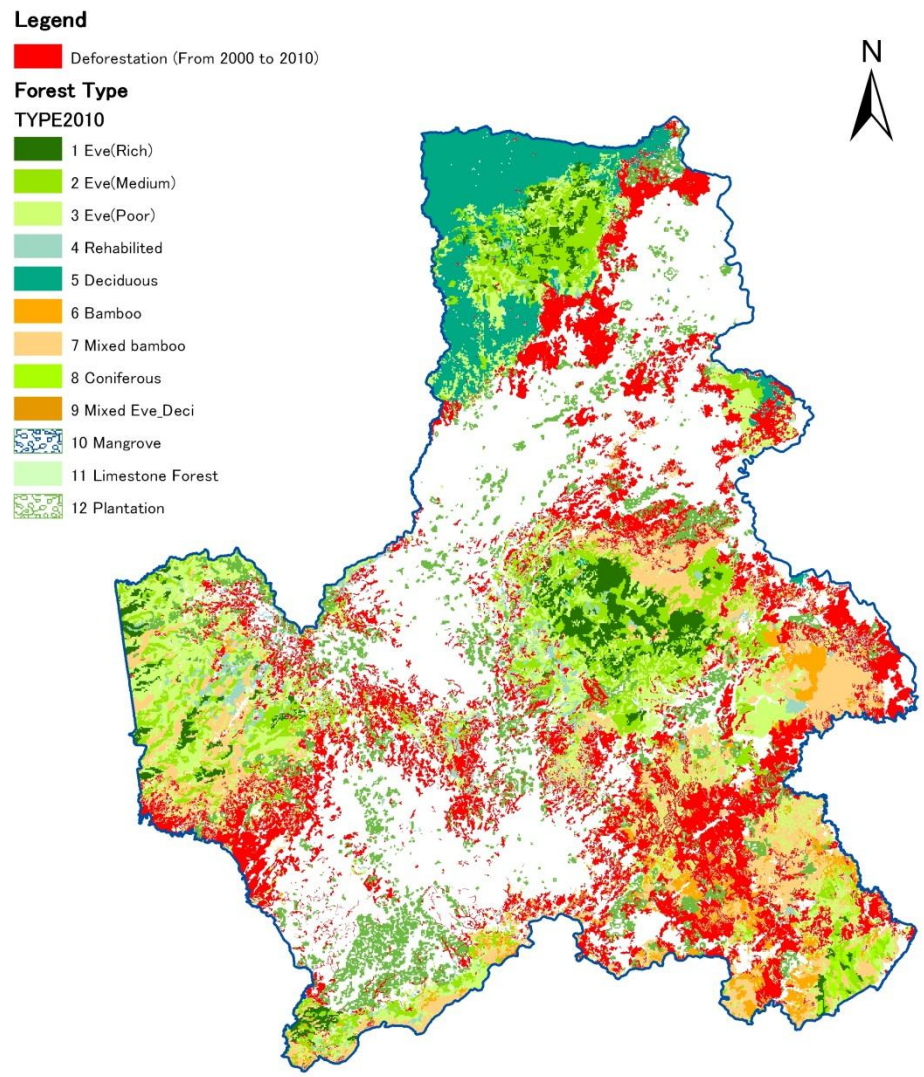
0 15 30 60 90 120 (Km)

The Study on Potential Forests and Land Related to "Climate Change and Forests"

Forest Type Change Map 2010
(41 Dac Nong)



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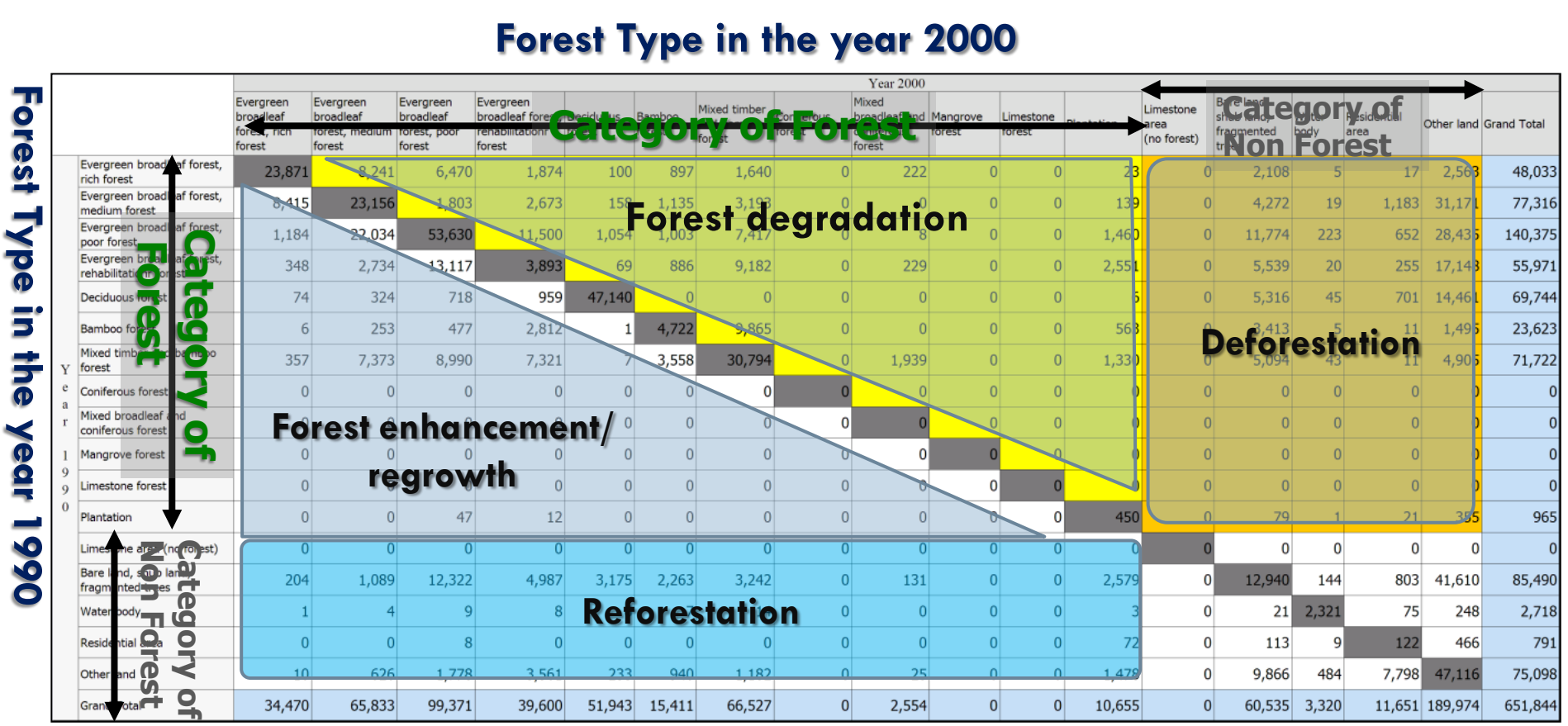
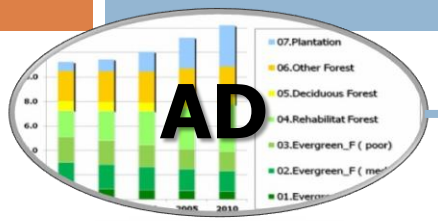
0 5 10 20 30 40 (Km)

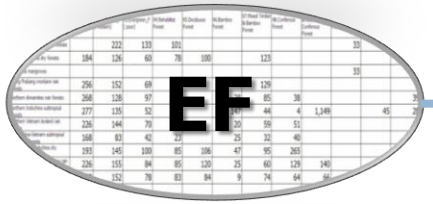
How forest area changes are detected and calculated?

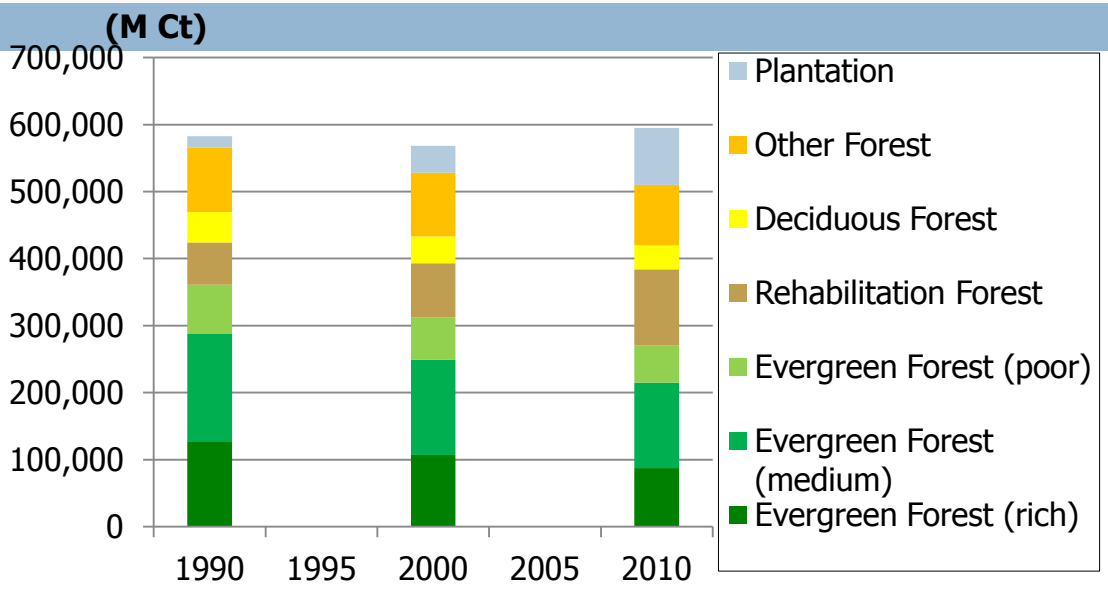


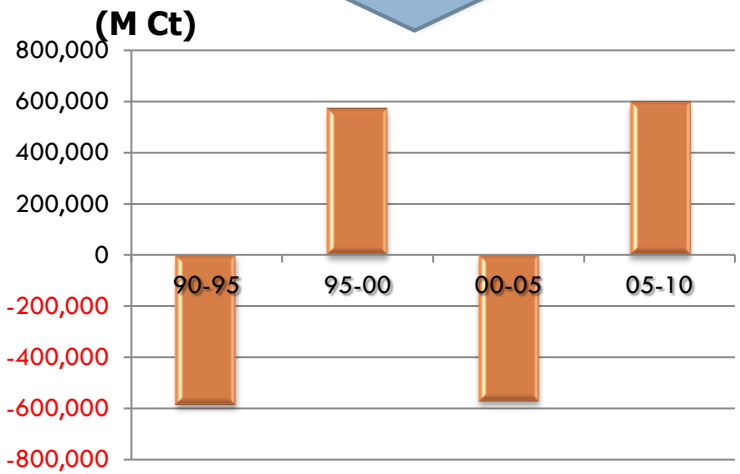
Year 1990 \ Year 2000	Evergreen broadleaf forest, rich forest	Evergreen broadleaf forest, medium forest	Evergreen broadleaf forest, poor forest	Evergreen broadleaf forest rehabilitation forest	Deciduous forest	Bamboo forest	Mixed timber forest	Coniferous forest	Mixed broadleaf and coniferous forest	Mangrove forest	Limestone forest	Plantation	Limestone area (no forest)	Bare land, shrub land, fragmented trees	Water body	Residential area	Other land	Grand Total
Evergreen broadleaf forest, rich forest	23,871	8,241	6,470	1,874	100	897	1,640	0	222	0	0	23	0	2,108	5	17	2,563	48,033
Evergreen broadleaf forest, medium forest	8,415	23,156	1,803	2,673	156	1,135	3,193	0	0	0	0	139	0	4,272	19	1,183	31,171	77,316
Evergreen broadleaf forest, poor forest	1,184	22,034	53,630	11,500	1,054	1,003	7,417	0	8	0	0	1,460	0	11,774	223	652	28,435	140,375
Evergreen broadleaf forest, rehabilitation forest	348	2,734	13,117	3,893	69	886	9,182	0	229	0	0	2,551	0	5,539	20	255	17,143	55,971
Deciduous forest	74	324	718	959	47,140	0	0	0	0	0	0	5	0	5,316	45	701	14,461	69,744
Bamboo forest	6	253	477	2,812	1	4,722	9,865	0	0	0	0	563	0	3,413	5	11	1,495	23,623
Mixed timber and bamboo forest	357	7,373	8,990	7,321	7	3,558	30,794	0	1,939	0	0	1,330	0	5,094	43	11	4,905	71,722
Coniferous forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed broadleaf and coniferous forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mangrove forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Limestone forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plantation	0	0	47	12	0	0	0	0	0	0	0	450	0	79	1	21	355	965
Limestone area (no forest)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bare land, shrub land, fragmented trees	204	1,089	12,322	4,987	3,175	2,263	3,242	0	131	0	0	2,579	0	12,940	144	803	41,610	85,490
Water body	1	4	9	8	0	0	0	0	0	0	0	3	0	21	2,321	75	248	2,718
Residential area	0	0	8	0	0	0	0	0	0	0	0	72	0	113	9	122	466	791
Other land	10	626	1,778	3,561	233	940	1,182	0	25	0	0	1,478	0	9,866	484	7,798	47,116	75,098
Grand Total	34,470	65,833	99,371	39,600	51,943	15,411	66,527	0	2,554	0	0	10,655	0	60,535	3,320	11,651	189,974	651,844

Estimation of stock and change









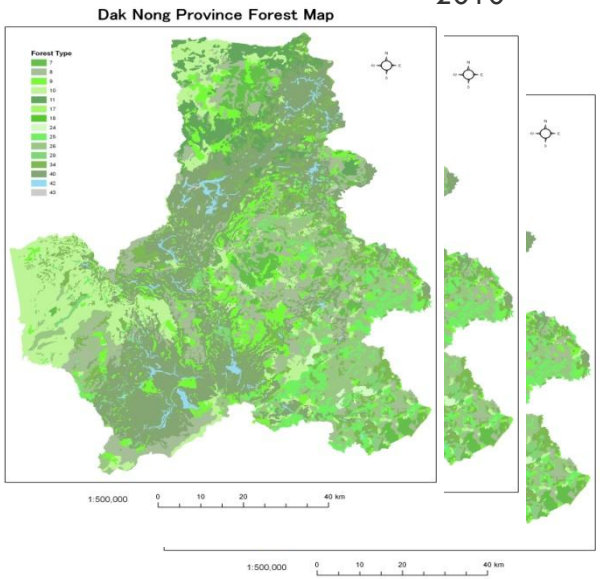
Change in forest carbon stock 1990-2010

Agro-Region		Province	Carbon Stock Change (Unit:1,000CO2t)				D (Unit:1,000CO2t)				A/R (Unit:1,000CO2t)			
			'90 – '95	'95 – '00	'00 – '05	'05 – '10	'90 – '95	'95 –'00	'00 – '05	'05 – '10	'90 – '95	'95 – '00	'00 – '05	'05 – '10
1.Northwest	1	Sơn La	9,112	-4,215	12,025	10,291	-10,637	-11,073	-18,249	-18,433	19,750	6,857	30,274	28,724
	2	Hoà Bình	-1,101	-2,436	736	5,992	-6,164	-7,700	-4,869	-5,833	5,063	5,263	5,605	11,825
	3	Lai Châu	3,915	-2,003	398	16,028	-5,452	-8,258	-11,663	-7,584	9,368	6,255	12,062	23,612
	4	Điện Biên	106	-3,254	452	7,601	-5,675	-13,369	-11,590	-1,605	5,781	10,115	12,041	9,206
		Sub Total	12,032	-11,909	13,611	39,912	-27,928	-40,399	-46,371	-33,455	39,961	28,490	59,982	73,367
2.Northeast	5	Lào Cai	1,605	446	-2,208	3,683	-5,263	-9,993	-14,110	-10,530	6,868	10,439	11,903	14,213
	6	Yên Bái	1,583	3,914	-281	16,075	-4,902	-4,791	-10,252	-5,779	6,486	8,705	9,971	21,855
	7	Hà Giang	2,505	-6,579	-75	19,203	-5,502	-14,550	-11,038	-8,377	8,007	7,971	10,963	27,580
	8	Tuyên Quang	-2,689	-2,600	730	7,082	-7,712	-11,398	-9,302	-7,481	5,023	8,798	10,031	14,563
	9	Lạng Sơn	-559	375	14,931	20,184	-6,616	-2,081	-5,811	-600	6,057	2,456	20,742	20,784
	10	Bắc Giang	-1,014	-442	1,851	2,831	-1,209	-2,484	-3,882	-379	195	2,042	5,733	3,210
	11	Phú Thọ	-788	3,314	1,977	4,447	-3,578	-1,886	-2,174	-4,919	2,790	5,199	4,150	9,366
	12	Vĩnh Phúc	-746	303	60	-475	-1,248	-686	-473	-1,169	502	989	533	695
	13	Cao Bằng	802	-1,716	4,466	14,018	-3,480	-3,762	-6,111	-4,888	4,282	2,046	10,577	18,906
	14	Bắc Kạn	-1,078	-2,897	3,081	10,739	-4,826	-4,128	-2,370	-4,591	3,748	1,232	5,451	15,330
	15	Thái Nguyên	-194	2,809	930	6,346	-2,111	-2,681	-3,066	-2,111	1,917	5,490	3,996	8,457
	16	Quảng Ninh	-4,771	-6,332	9,858	3,172	-4,776	-10,478	-1,673	-4,312	4	4,146	11,530	7,484
		Sub Total	-5,343	-9,404	35,319	107,305	-51,221	-68,918	-70,263	-55,137	45,878	59,514	105,581	162,442
		Sub Total	844	-695	2,222	2,508	-293	-1,123	-351	-160	1,137	427	2,573	2,668
4.North Central	26	Thanh Hoá	-4,946	-4,197	12,561	-14,541	-16,682	-16,706	-12,766	-26,529	11,737	12,508	25,327	11,988
	27	Nghệ An	1,878	-937	3,911	-9,760	-21,375	-23,590	-18,628	-28,514	23,253	22,652	22,539	18,754
	28	Hà Tĩnh	-1,423	-8,157	-2,530	701	-6,298	-12,847	-9,696	-6,987	4,876	4,689	7,167	7,689
	29	Quảng Bình	1,542	-6,184	-8,920	7,005	-8,524	-14,682	-20,358	-10,833	10,066	8,498	11,438	17,839
	30	Quảng Trị	2,271	-3,514	-1,701	2,907	-3,600	-8,062	-8,357	-5,614	5,871	4,548	6,656	8,522
	31	Thừa Thiên Hu ế	-372	-1,820	314	3,026	-1,706	-5,921	-6,916	-4,812	1,334	4,101	7,230	7,838
		Sub Total	-1,049	-24,810	3,636	-10,661	-58,186	-81,807	-76,721	-83,290	57,137	56,998	80,357	72,629

Analyses of forest changes and major driving forces

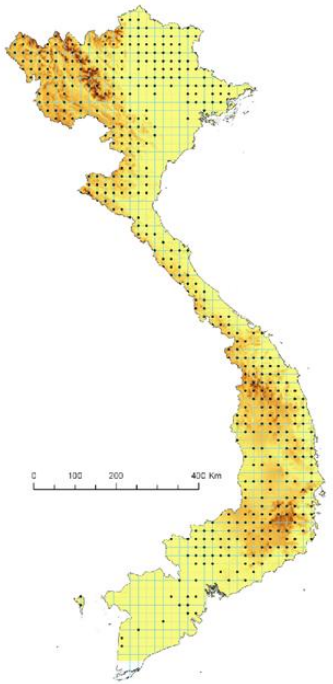
Forest cover maps

1990, 1995
2000, 2005
2010

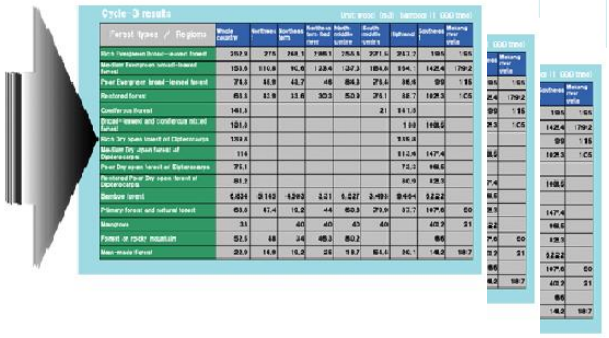


Field measurement data

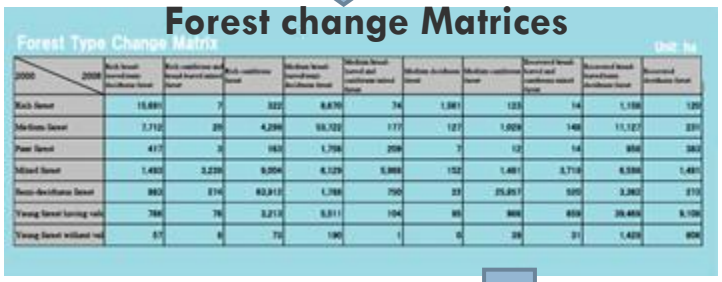
1990 - 1995
1996 - 2000
2001- 2005
2006 - 2010



Changes in forest status

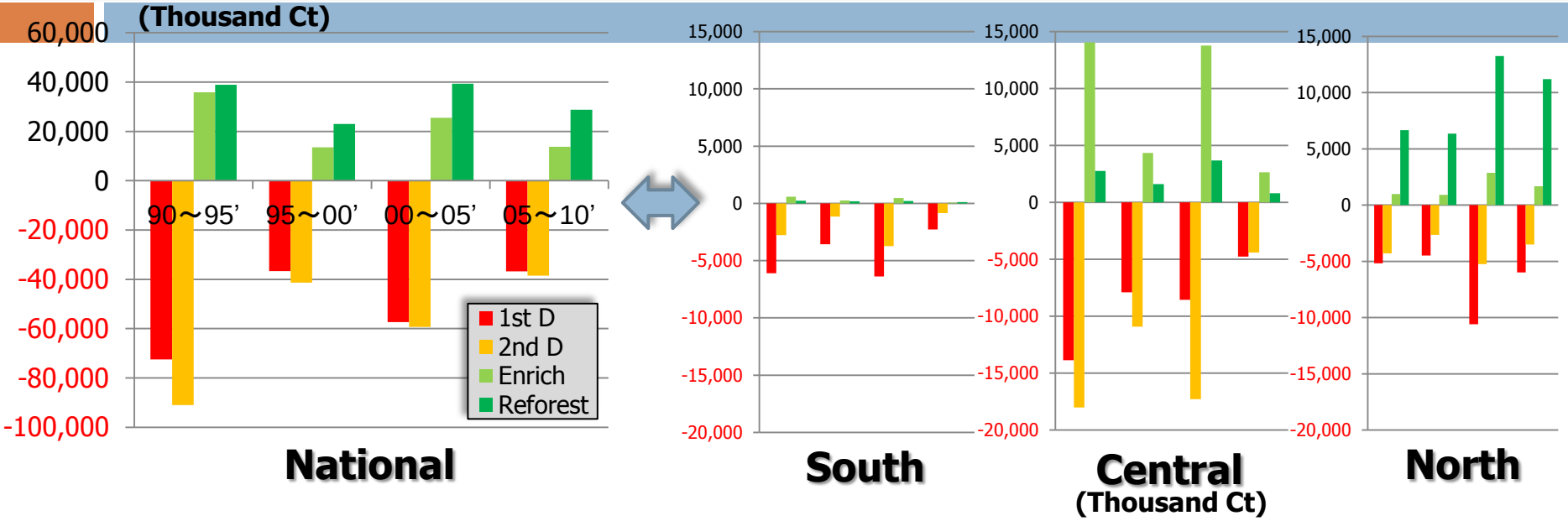


Forest change Matrices



Forest changes (quality & quantity)

Development of interim REL/FRL at national and sub-national levels



- **REL/RL in National scale**
- Closely related with national strategy
- Difficult to extrapolate forest change trends associated with driving forces

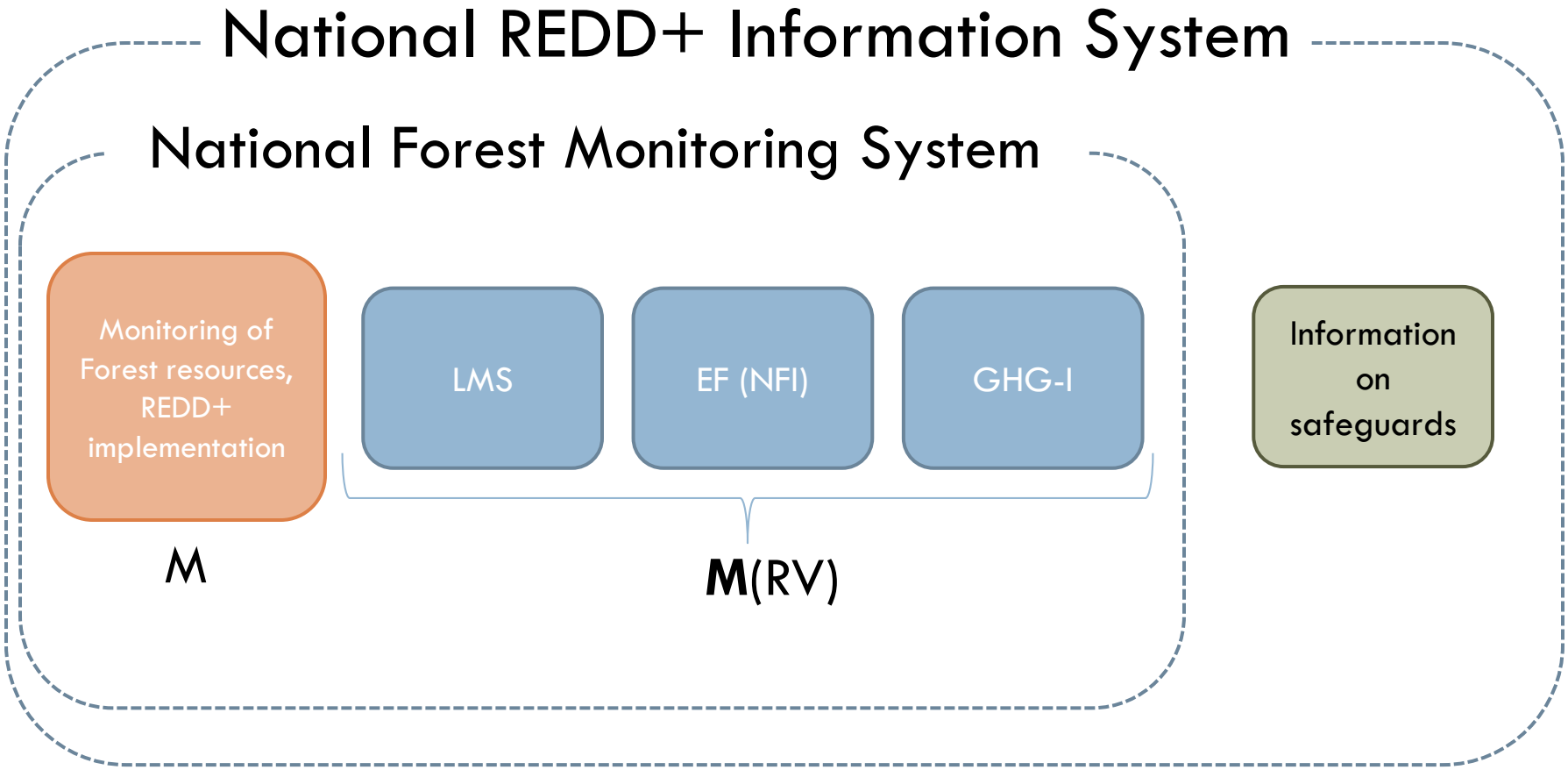
- **REL/RL in Sub-national scale**
- Closely related with regional strategy and driving forces
- Easy to extrapolate forest change trends associated with driving forces

Development of transparent & effective MRV system

Shall be consistent with

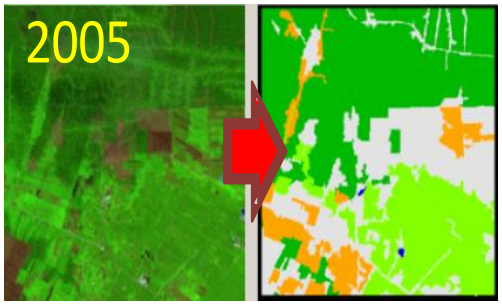
- Decision 4/CP.15 (NFMS & use of IPCC GPG)
- Decision 2/CP.16 (NFMS and REL/RL)
- Decision 2/CP.17 (safeguards and REL/RL)
- Step-wise
- National circumstances and capacities, maximal utilization of existing national systems
- Support from international development partners

MRV Framework document



Activity Data

Land Monitoring



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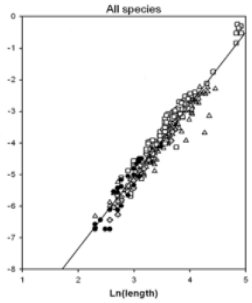
Emission Factor

Carbon inventory
Allometric equations



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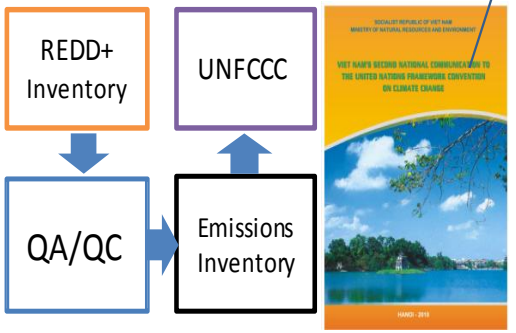
REDD+ GHG Inventory

GHG Emissions and Removals

National Communications



Generation of Activity Data (AD)

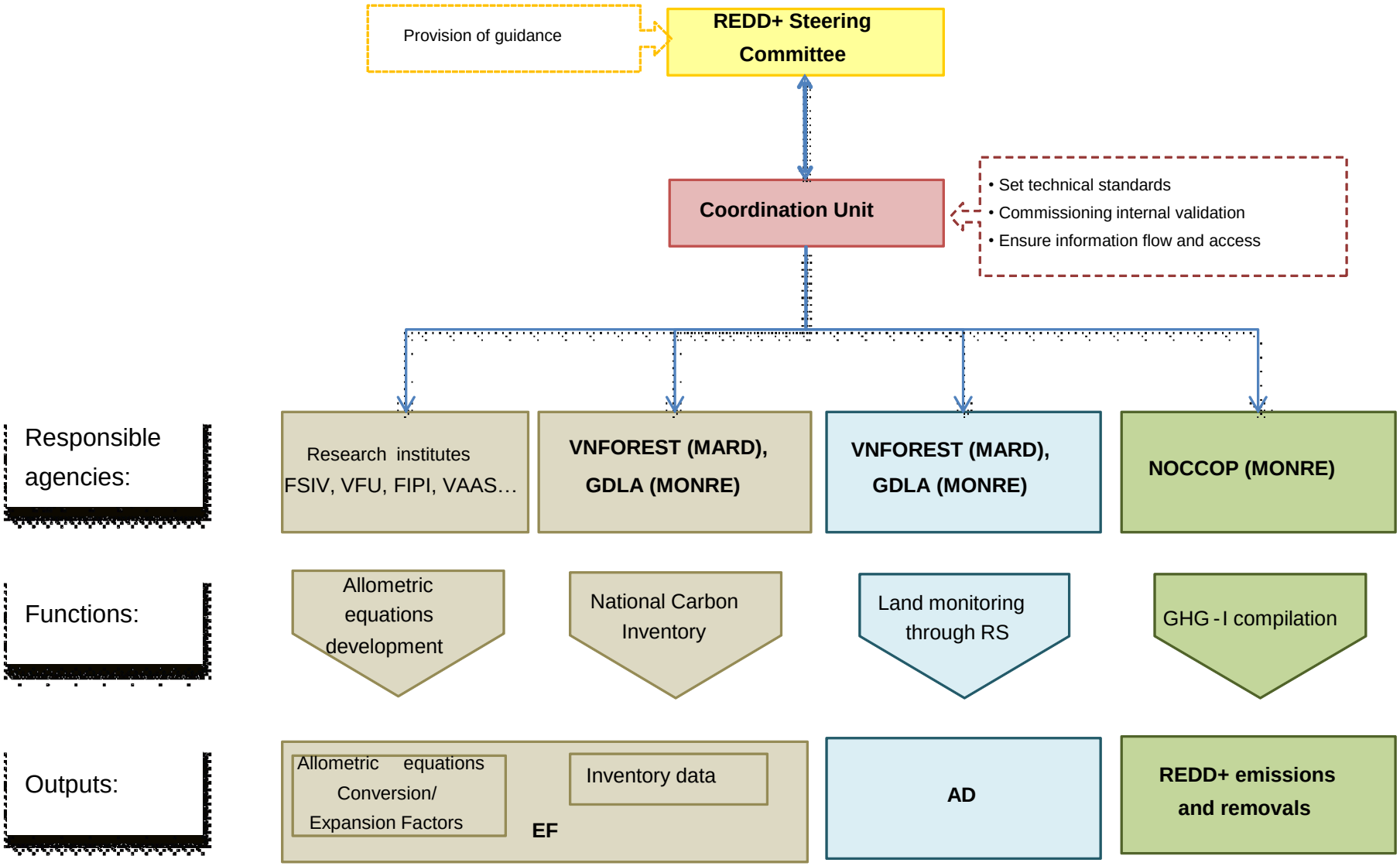
- **Policy:** Implementation of NFI is mandated by Law on Forest Protection and Development in every 5 years, and funded by Government budget

- **Method:** Use IPCC guidance and guidelines, as adopted or encouraged by the Conference of the Parties; Longstanding experience in using a combination of remote sensing and ground-based inventory & monitoring; Tier 2++
- **Improving current NFI Program:** is currently improved with the support from FAO-Finland forestry partnership Prog, UN-REDD VN. GoV funded for piloting in two REDD+ provinces (US$ 2.5 mill.); nation-wide implementation: 2013-2015

Estimation of Emission Factor (EF)

- National Carbon Inventory (NCI) and NFI
- Development of Destructive measurement for Allometric Equations (~June/2012); AE Training workshop in Hanoi from 19-22 June 2012 (Vietnam and Indonesia);

Forest eco-regions	NE		NCC		SCC	CH	SE	MRD	Total # of plots	Total sample trees
Forest types / province	Lao Cai	Bac Kan	Ha Tinh	Nghe An	Quang Nam	Lam Dong	Binh Thuan	Ca Mau		
Evergreen broad leaved forest	**2**	**2**	**3**	**1**	**2**	**2**	**2**	**0**	**14**	**700**
Deciduous forest	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	**100**
Bamboo forest	**1**	**1**	**0**	**2**	**0**	**1**	**1**	**0**	**6**	**600**
Luong - Dendrocalamus barbatus	0	0	0	1	0	0	0	0	1	100
Nua - Schizostachyum sp	0	1	0	1	0	0	0	0	2	200
Vau - Indosasa sp.	1	0	0	0	0	0	0	0	1	100
Lo o - Bambusa balcoa	0	0	0	0	0	1	1	0	2	200
Total # of plots	**3**	**3**	**3**	**3**	**0**	**4**	**4**	**0**	**22**	
Responsible organization	NW sub-FIPI		VFU		TNU	RCFEE	CFIC	n.a.		


Provision of guidance
REDD+ Steering Committee
Coordination Unit
• Set technical standards
• Commissioning internal validation
• Ensure information flow and access
Responsible agencies:
Research institutes FSIV, VFU, FIPI, VAAS…
VNFOREST (MARD), GDLA (MONRE)
VNFOREST (MARD), GDLA (MONRE)
NOCCOP (MONRE)
Functions:
Allometric equations development
National Carbon Inventory
Land monitoring through RS
GHG - I compilation
Outputs:
Allometric equations Conversion/ Expansion Factors
Inventory data
EF
AD
REDD+ emissions and removals

Monitoring

- **Principles**
  - Participatory monitoring from local to central level
  - PFC is legalized by Law on FPD (Article 32)
- **Independent Monitoring Board** (UN-REDD VN Phase 2
  - Ensuring results-based actions
  - Not necessarily for accounting carbon
  - Benefit distribution
- **Parameters for monitoring & Frequency**
  - Various … (e.g., area of protected/planted forests, quality of forests, rate of deforestation, ect.); Technical manual is produced
  - Should be simple and practical, close linkages with result-based indicators
  - MARD issued the Circular No. 20 /2012/TT-BNNPTNT to regulate the procedures for assessing the results of PFES before payment.
- **Development of FORMIS:** Finland assistance

Participatory Forest Monitoring

Designing appropriate BDSs

- Vietnam has experienced in designing and implementing numerous BDSs in forestry sector (e.g., 661 Prog, PFES)
- Started reviewing current policies and designing BDSs for REDD+ in late 2009
- National REDD+ Fund (as a part of VNFF) with participatory governance structures;
- **R-Coefficient:** take into account local circumstances, culture & safeguards; consideration of co-benefits; have close linkages with MRV;
- It is costly and difficult to evaluate the performance of and conduct payments to individual households – PFM and local disbursement via intermediaries (FC/FMBs) and local communities are potential options
- For non-carbon benefits: PFES, pilot policies on BDS in protected forests

How the safeguards are addressed?

- UNFCCC agreed elements, steps and conditions should be respected to avoidance of different interpretation of COP decisions and prejudge due to specific interest;
- Consistent with national sovereignty, legislation, circumstances and capacities, and relevant international obligations and agreements;
- Starting from reviewing current policies and instruments in comparison with COP requirements, then defining the roadmap of development (BMU, UN-REDD Vietnam, FCPF RPP, PGA initiative);
- A STGW on Safeguards is established in early 2012, co-chaired by VRO/SNV. Visit: www.vietnam-redd.org; http://www.snvworld.org/redd

Addressing regional leakages

1. **Cooperation with Lao PDR:**

   • MARD Minister visited Lao in Oct and both sides agreed to develop a comprehensive cooperation program, including REDD+, FLEGT, capacity building, afforestation, forest monitoring

   • MOIT takes lead in development of bilateral trading agreement, including transparent procedures for timber export and import

   • A new MoU will be signed in 12th July 2012 in Hanoi

2. **Cooperation with Cambodia**

   •MARD minister visited Cambodia and agreed to urgently develop MoU on combating illegal logging and transportation cross border

   •MoU will be signed in signed in 27th June 2012 at ASOF meeting in HN

Thank you very much for kind attention!