



Mangrove-related policy and institutional framework in Vietnam

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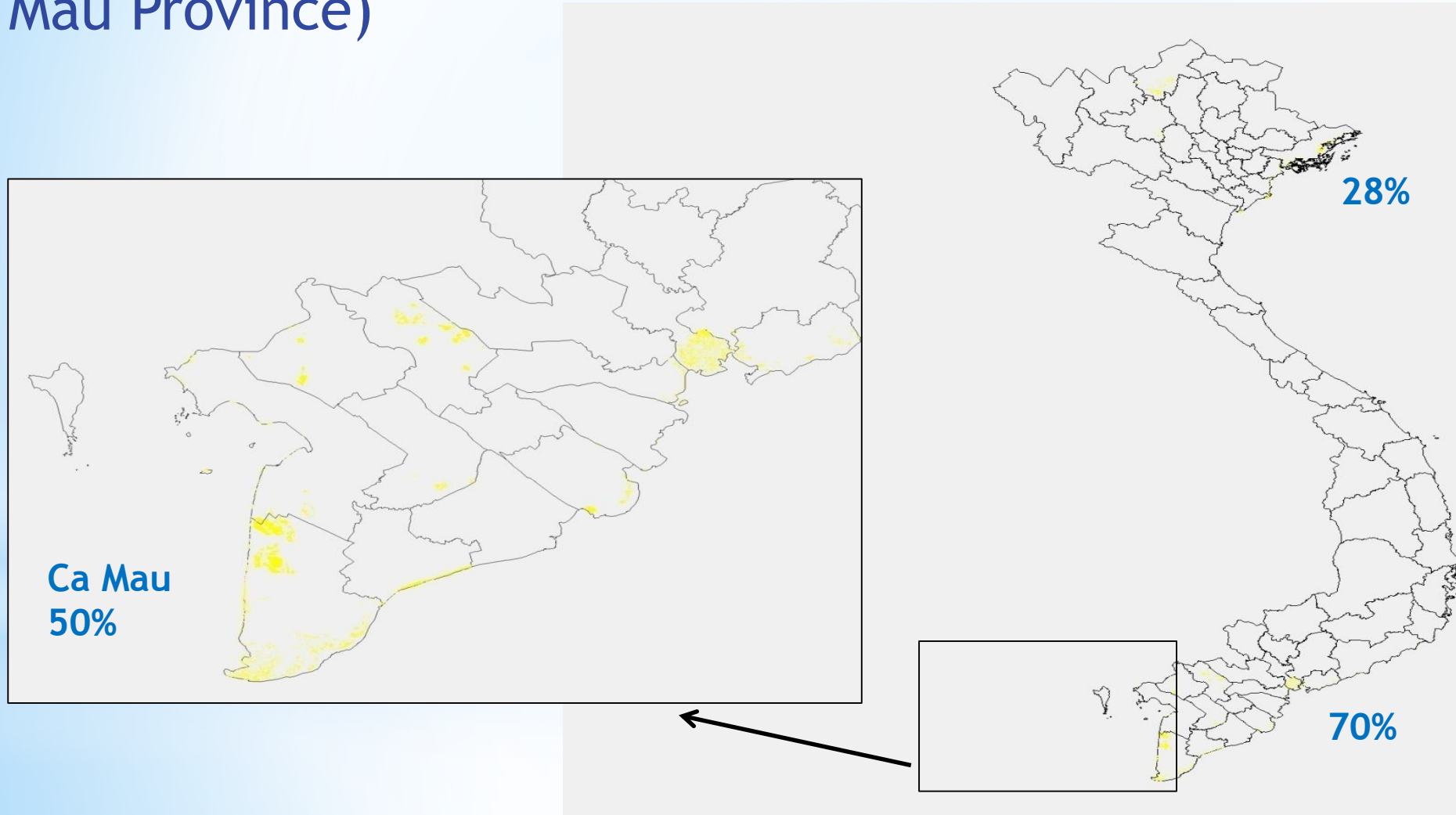
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Vietnam's Mangroves

- ✓ Mangroves located primarily in southern Viet Nam (Mekong Delta and Ca Mau Province)



Source: Jake Brunner (IUNC Vietnam)

Mangrove resource

- ✓ Mangrove area decreased from 400,000 ha in 1960s to 73,000 hectares in 1990 due to the use of herbicides during the Indochina War, and conversion of mangroves for agriculture and aquaculture
- ✓ BUR increased to 270,000 ha in 2015 due to government- and donor-funded planting efforts and mangrove protection policies
- ✓ Conversion of mangroves for export-oriented intensive shrimp production remains a substantial threat in many areas
- ✓ Many abandoned shrimp farms with potential for rehabilitation in Ben Tre and Tra Vinh provinces in southern Viet Nam

MANGROVE DISTRIBUTION IN VIETNAM

Changes in mangrove area in four regions of Vietnam (ha)

408,500 ha (1943)

Coastal area	1982	1999	2009	2015a (FAO)
North - east	39,400	2,969	20,328	
Northern delta	7,000	7,842	7,546.5	
Central	14,300	16,000	11,801.8	
Southern delta	191,800	109,797	123,325.6	
Total	252,500	156,608	171.995	270.000

Due to government- and donor-funded planting efforts and mangrove protection policies

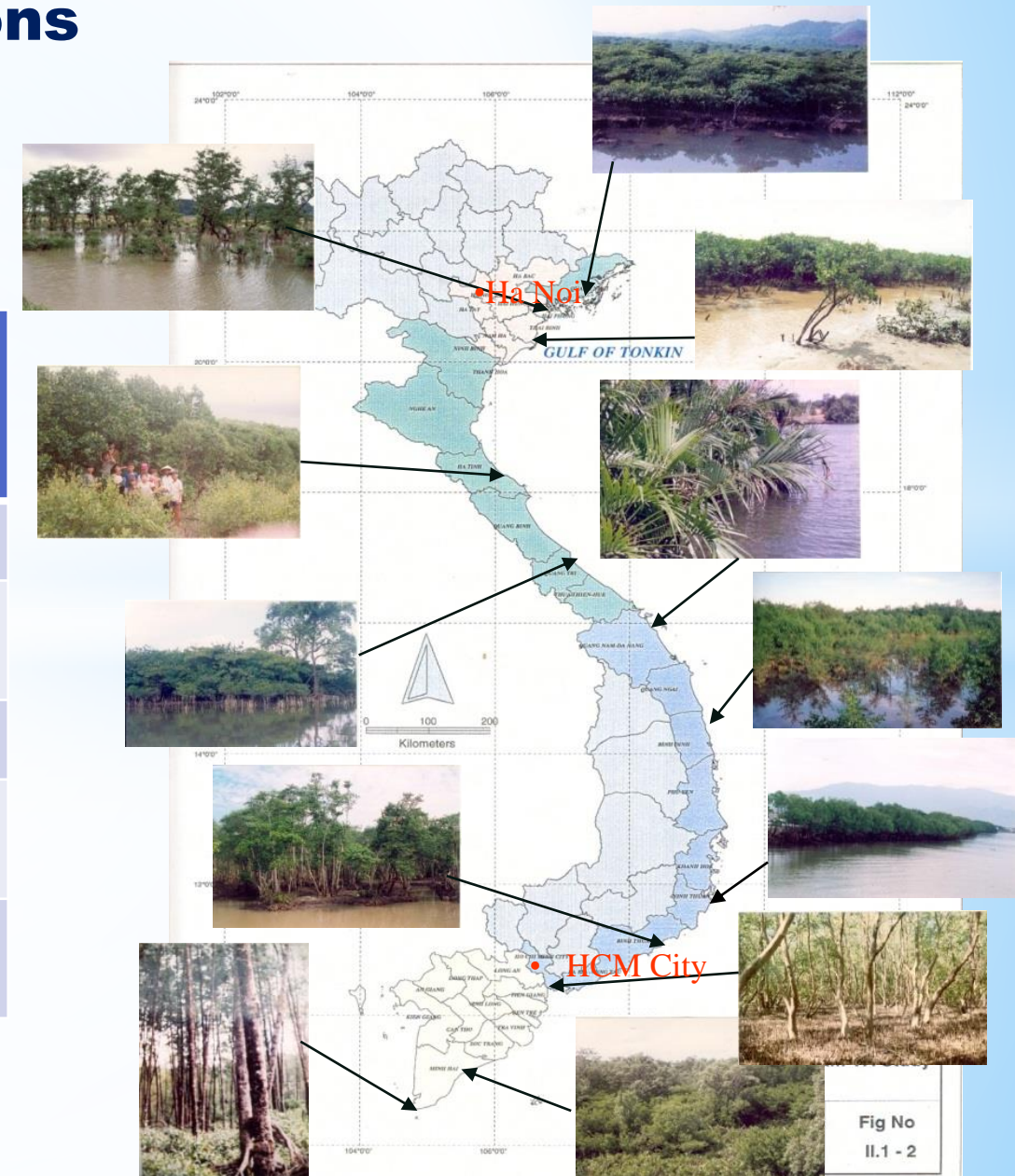


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CURRENT DISTRIBUTION AND CLASSIFICATION OF MANGROVE FOREST IN VIETNAM

	Total area (ha)	Area by types of forest (ha)		
		Protection	Special-use	Production
Vietnam	209,741	115,950	28,311	65,480
Quang Ninh, Northern region	37,651	30,928	4,489	2,234
Central-northern region	1,885	1,341	-	544
Central-southern region	2	-	-	2
Southeast region	41,666	38,468	16	3,182
Mekong river delta	128,537	45,213	23,806	59,518

(Sources: Institute of Forest Inventory and Planning, Vietnam)(FIPI)

TRADITIONAL USE OF THE MANGROVE ECOSYSTEM IN VIETNAM



Fire wood



Periphthalmus schlosseri
catching



Poor women dig shellfish on
tidal mudflat



Bee raising in mangroves has
bought high economic benefit



Clam farming in coastal estuarine areas



- ✓ Conversion of mangroves for export-oriented intensive shrimp production remains a substantial threat in many areas



- ✓ Many abandoned shrimp farms with potential for rehabilitation in Ben Tre and Tra Vinh provinces in Southern Viet Nam



Key mangrove agencies and legislation

✓ Ministry of Natural Resources and Environment (MONRE)

- responsible for land management, mapping and issuing land certificates
- has departmental offices (DoNREs) at the provincial and district levels

✓ Ministry of Agriculture and Rural Development (MARD)

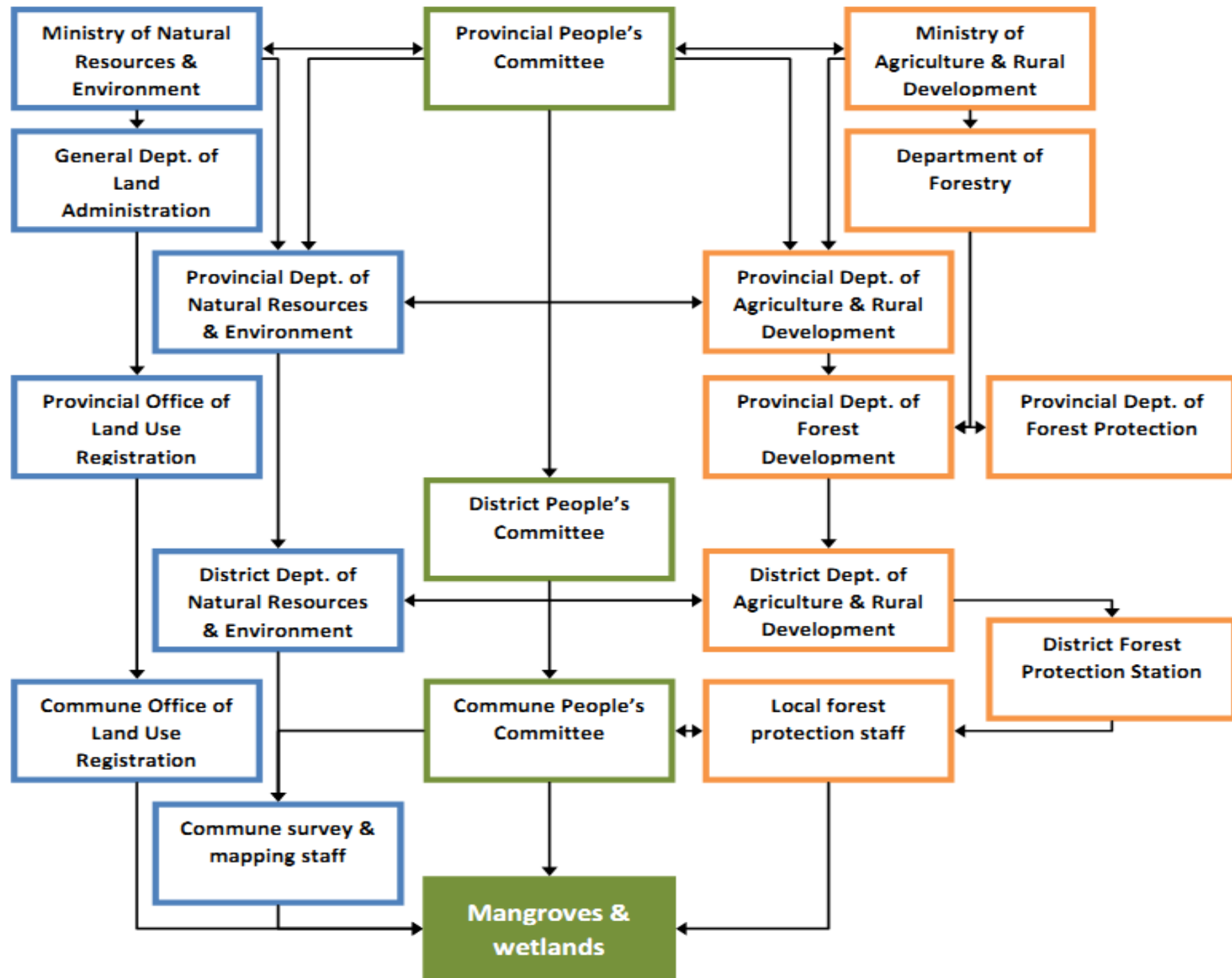
- responsible for forest and fisheries management, planning and allocation
- has departmental offices (DARDs) at the provincial and district levels

✓ Provincial, district and commune People's Committees

- represent the executive arm of the state
- evaluate and approve MoNRE's and MARD's land and forest plans

Mangrove management and jurisdiction

(Slayde Hawkins et al. 2010; MFF Vietnam)



JURISDICTION OVER MANGROVES IN MONRE & MARD

✓ Weak coordination between MoNRE and MARD, e.g. MoNRE not considering forest policies when planning development in coastal areas

Ministry of Natural Resources & Environment (MONRE) Management of land, including wetlands	Ministry of Agriculture & Rural Development (MARD) Mangrove forest & fisheries management
<ul style="list-style-type: none">• Land-use planning• Surveys and mapping• Land allocation• Land registration• Issuance of land-use certificates• Geology and mining• Water	<ul style="list-style-type: none">• Forest-use planning• Forest protection and development• Forest boundary demarcation• Forest allocation and leasing• Forest conversion• Aquaculture and fisheries management

Key mangrove agencies and legislation (cont.)

- ✓ Mangroves are considered forest ecosystems and are therefore subject to laws applicable to forestlands:
 - Law on Land (amended 2013)
 - Law on Forest Protection and Development (2004)
 - Law on Environmental Protection (2005)
 - Law on Biodiversity (2008)
- ✓ Decree 02 (1994) provides the legal framework for allocating forestland to public and private organizations, individuals and households for forestry purposes
- ✓ Decree 01 (1995) provides the framework for forestland contracting by parties that have been allocated forestland

Legal frameworks for mangrove conservation and development

- In 1986: Vietnam signed the Ramsar Convention. The purpose of the Ramsar Convention is to promote sustainable use of wetlands.
- In 1993: The five-million ha program for forest restoration (or 661 program) began as the 327 program in 1993. Its goals through 2010 are to: protect existing forest, plant 2 million ha of protection and special use forest, and plant 3 million ha of production forest. Almost all coastal provinces are subject to program implementation.
- In 1994: Decree 02 provides the legal framework for allocating forestland to public and private organizations, individuals and households for forestry purposes
- In 1995: Decree 01 provides the framework for forestland contracting by parties that have been allocated forestland
- In 2003: Decision 109 on the conservation and sustainable use of wetlands recognizes wetlands as a distinct land use and conservation management category.
- in 2004: Law on Forest Protection and Development.

(Slayde Hawkins et al. 2010; MFF Vietnam)

Legal frameworks for mangrove conservation and development (cont.)

- In 2005: Law on Environmental Protection requires strategic environmental assessments for land use planning and forest development and protection. The Environmental Protection Law of 2005 also specifies that the trading of emissions credits with foreign buyers will be regulated by the Prime Minister.
- In 2008: The Biodiversity Law emphasizes the protection and conservation of biodiversity resources in the country. The law recognizes the environmental value of forests and mangroves and lays a foundation for the development of markets for ecosystem services.
- In 2008: Decision 380 outlines a pilot policy on payment for forest ecosystem services (PFES), under which ecosystem service users pay ecosystem service providers for the value of services provided by the forest.

(Slayde Hawkins et al. 2010; MFF Vietnam)

Legal frameworks for mangrove conservation and development (cont.)

- In 2009: The plan for mangrove restoration and development for 2008-2015, approved by the Prime Minister, sets a goal to increase the area of mangrove in Vietnam from 209,741 ha to 307,295 ha, mainly by planting. 29 coastal provinces are subject to this plan. Forest contracting and allocation to local households and communities are prioritized.
- In 2010: The National Strategy for Environmental Protection until 2020 and Vision Until 2020 sets a goal of increasing overall forest cover 43% by 2010, while improving forest quality and restoring mangrove forest. The strategy recommends activities to increase mangrove areas to 80% of 1990 levels.
- In 2010: The master plan on development of the fisheries sector until 2020 and vision through 2020 has a goal of promoting sustainable extraction of aquatic products and sustainable aquaculture development across 1.4-1.5 million ha of surface water and production centers in the Red River Delta, southeast region, and Mekong River Delta
(Slayde Hawkins et al. 2010; MFF Vietnam)

Legal frameworks for mangrove conservation and development (cont.)

- The **National Forestry Strategy for 2006-2020**, aims to increase overall forest cover to 47% by 2020, including 5.68 million ha of protection forest and 2.16 ha of special use forest.
- **Decree 119/ 2016/ ND-CP. Policy on Coastal forest management, protection, rehabilitation and development in response to climate change.** (23 August 2016, approved by Prime Minister).

Mangrove tenure

- ✓ All forests land (and hence all mangroves area) are state-owned; private and community ownership of forest not permitted
- ✓ The state allocates land use rights for management (up to 50 years):
 - 51% of mangrove areas are allocated to state-run Forest Management Boards (FMBs); largest contiguous mangrove areas
 - 29% are managed by Commune People's Committees; unallocated small coastal belt forests put under the temporary control of CPCs by default
 - 10% are allocated to private companies
 - 10% are allocated to households and other stakeholders
- ✓ FMBs can contract their allocated mangroves to households and individuals; rights and duties of both parties defined in the contract
- ✓ Commune and villages cannot be allocated or contracted forestland

Mangrove tenure (cont.)

- ✓ Three forest categories: special use forests, protection forests, and production forests; only special use forest cannot be harvested
 - 70% of mangroves are classified as protection or special use forests
 - All forest areas are mapped, so no ambiguity regarding classification
 - In northern Viet Nam, most mangrove forests have protection status and are not allocated to households and individuals
 - In southern Viet Nam, mangrove tenure systems are more diverse, and include individual tenure for production forests and collective tenure and co-management for protection forest

Mangrove policy

- ✓ Households and organizations allocated or contracted submerged land can only use 40% of the area for agriculture or aquaculture – i.e. shrimp farmers in protection and production forests must maintain at least 60% mangrove canopy cover (Decision 186/2006/QD-TTg)
- ✓ In protection forest, allocated or contracted households may cut not more than 20% of the area during any one period; the harvested area must be replanted and further harvesting cannot occur until the replanted area is at least 3 years old (Decision 178/2001/QD-TTg)
- ✓ In production forest, allocated or contracted households do not have to comply with the 20% restriction, i.e. 100% of the forest can be cut as long as it is immediately replanted (Decision 178/2001/QD-TTg)

Mangrove policy (cont.)

- ✓ National target of 60% forest cover (Forest Protection and Development Plan for 2011-2020)
- ✓ Policy on 'Coastal Forest Management, Protection, Rehabilitation and Development in Response to Climate Change' (Decree 119/ ND-CP, August 2016)
 - seeks to prohibit conversion of coastal forests except for reasons of national importance
 - policy endorsed by MARD.
- ✓ National Payment for Forest Environmental Services (PFES) scheme
 - institutional mechanisms for carbon and aquaculture under development
 - unclear which stakeholders would be eligible for payments (FMBs? Households?)

Mangrove management (southern Viet Nam)

- ✓ FMBs responsible for mangrove restoration in their allocated areas
- ✓ FMBs staffed by local individuals assigned by DARD for 5-year terms
- ✓ FMBs often contract households to manage 3-4 ha plots of production and protection forest (including mangroves) for duration of 20-25 years
- ✓ Households develop annual harvesting plans and forward to FMBs for approval; FMBs develop 5- and 10-year plans approved by DARD
- ✓ Households are meant to keep 60% of their plots under mangrove cover; however, this rule is loosely enforced
- ✓ FMBs provide technical assistance, free seedlings and occasional financial incentives, but cannot order households to plant
- ✓ FMBs do not object to donors or private entities establishing mangrove-related agreements with individual farmers, as long as management is in compliance with regulations and annual harvesting plans

Mangrove monitoring (southern Viet Nam)

- ✓ FMBs conduct regular patrols (on boats and foot) of their mangrove areas
- ✓ FMBs cannot enforce laws, so report violations to forest rangers; illegal harvesting is rare and mostly for house construction or charcoal production
- ✓ FMBs and forest rangers also undertake annual monitoring of planting and harvesting; do not use maps or satellite images, at least partially due to lack of capacity to interpret images and use mapping software
- ✓ However, MARD's Forest Inventory and Planning Institute (FIPI) is currently conducting a mangrove inventory:
 - includes analysis of 2012 SPOT5 satellite imagery and ground-checking
 - should provide a baseline for monitoring change in mangrove areas
- ✓ Southern FIPI is able to interpret satellite imagery for private- or public-funded mangrove projects, and to provide mangrove monitoring training for communities and/or FMBs

Mangrove projects – Mangroves and Markets (2012-2016)

- ✓ funded by the German government, and implemented by IUCN, SNV and Minh Phu Company (the largest shrimp producer in Viet Nam)
- ✓ seeks to increase mangrove cover of shrimp farms in protection and production forests in Nhung Mien forest, Ca Mau, by promoting certified organic shrimp production under the Naturland scheme:
 - the scheme requires at least 50% mangrove cover in the farm area
 - under contracts with individual farmers, Minh Phu purchases all organically produced shrimp at a \
 - monitoring and verification is carried out via internal control system and annual third-party audits, paid for by Minh Phu
 - SNV and Nhung Mien FMB provide annual training to farmers on aquaculture practices, mangrove restoration, and sanitation
 - over 1,000 farmers contracted; unclear if activities will continue after project elapses

Integrated Mangrove-Shrimp, crab, fish...

1. IUCN/ MCC: Mangrove protection combined with aquaculture to increase the resilience to climate change and natural disaster; MFF's small grant projects in Ben Tre and Tra Vinh Province (10 projects):
 - Community forestry management and improving mangrove based multi-culture model in An Thuy Commune, Ba Tri District, Ben Tre Province
 - Rehabilitating the dead land from failed intensive shrimp farm through mangrove planting and aquaculture integration in Ben Tre Province
 - Developing sustainable mangrove based multi-culture model shrimp-crab-mud clam (*Geloina coaxans*) in Duyen Hai district, Tra Vinh province
 -
2. MAM:IUNC/ SNV: Mangrove restoration combined with organic shrimp farming/ Certified organic shrimp- a new approach to PES (In Nhung Mien mangrove forest, Ca Mau)

Mangrove projects – Mangrove Plantation and Disaster Risk Reduction program (1994-2005)

- ✓ funded by Danish and Japanese Red Cross; implemented by Viet Nam Red Cross Society and its province, district and commune chapters
- ✓ supported planting of mangroves in northern provinces to increase the resilience of communities to natural disasters
- ✓ signed individual agreements with households participating in planting or protecting mangroves; upon evaluation of results, the provincial Red Cross chapter made direct payments to households
- ✓ restored 8,961 ha of mangroves
- ✓ since funding ceased in 2006, illegal cutting and mangrove encroachment have emerged

Mangrove planting



Mangrove plantation funded by NGOs and WB

(Source: Viet Nam Red Cross, ACTMANG, MERC)

No.	Province/City	Sponsor	Planting time	Newly planted area (ha)
1	Quang Ninh	JRC	1997-2005	1757
		ACTMANG	1999-2000	231
		SCF -UK	1994-1996	18
2	Hai Phong	JRC	1997-2005	1616
		ACTMANG	1994-2005	1202
3	Ninh Binh	JRC	1997-2005	790
4	Thanh Hoa	JRC	1997-2005	1245
		ACTMANG	1999-2000	147
		SCF	1994-1996	275
5	Nghe An	JRC	1997-2005	1096
		SCF	1991-1996	184
6	Ha Tinh	JRC	1998-2005	650
		SCF	1991-1993	240
		OXFAM &I	1991-1996	377
7	Thai Binh	DRC	1994-2005	3919
		ACTMANG	1996-2005	431
		TEPCO	2005-2006	50
8	Dinh	DRC	1997-2005	2331
		TEPCO	2004-2005	40
9	Binh Dinh	ACTMANG	2004-2006	65
10	Ninh Thuan	ACTMANG	2002-2004	52
11	Soc Trang	ACTMANG	2004-2005	51
		MILIEV	1996-1999	95
12	Ben Tre	ACTMANG	1997	44
13	Ca Mau	MILIEV	1996-1999	3647
14	Ca Mau, Soc Trang, Ben Tre, Tra Vinh	WB	2000-2005	3648
Total				24,201

Ideas for project piloting and implementation

✓ Location:

- FMB-managed areas? Clear resource tenure and direct link to households...
- Rehabilitating abandoned shrimp farms in Ben Tre and Tra Vinh provinces ?
- Mangrove - based aquaculture / Certified organic shrimp / Poly-culture in Ben Tre, Tra Vinh and in Ca Mau provinces ?

✓ Implementing partners:

- FMBs and Southern FIPI providing technical assistance and training (monitoring, reporting, analysis of satellite images)?
- contracts with individual households or groups?
- establish links with existing projects and/or shrimp producers?

✓ Funding:

- UN-REDD – Phase 2 in Ca Mau province?
- Viet Nam's PFES system?

Thank you for your attention!

