



COASTAL MANAGEMENT AND COMMUNITY MANAGEMENT IN MALAYSIA, VIETNAM, CAMBODIA AND THAILAND, WITH A CASE STUDY OF THAI FISHERIES MANAGEMENT

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Study areas



Thailand



- 76 provinces
- Population is 63.03 million (2007)
- Religion is Buddhist
- Coastline 3,334 km (GoT 2,469 km and Andaman sea 865 km)
- EEZ covered 420,280 km² (GoT 304,000 km² and Andaman sea 116,280 km²)
- Main export are rice, rubber and frozen fish and prawn
- GNI 3,400 \$US (2008)

Vietnam



- 58 provinces
- Population is 86.1 million (July 2008)
- Non religions (80%)
- Coastline 3,444 km
- Main export are Petroleum and marine products
- GNI 2,600 \$US (2007)

Cambodia



- 20 provinces
- Population is 14 million (2007)
- Main religion is Buddhist
- Coastline 435 km
- Main export are rice, rubber, corn, meat and vegetables
- GNI 517 \$US (2007)

Malaysia

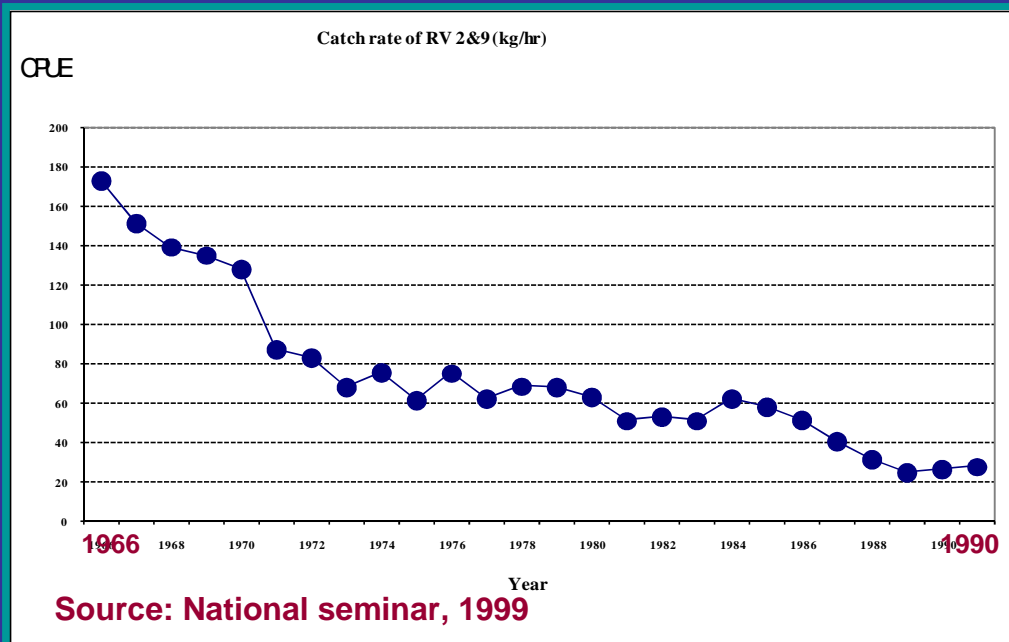


- 13 states; 11 states in peninsular Malaysia and 2 states in Bornuo Island
- Population is 25.27 million (July 2008)
- Main religion is Muslim
- Coastline 4,675 km (peninsular Malaysia 2,068 km and east Malaysia 2,607 km)
- EEZ covered 475,600 km²
- Main export are rubber and palm oils
- GNI 7,145 \$US (2007)

The problems on coastal zone of the Gulf of Thailand

Overexploitations

- Natural resources decline



- number of fishing vessels over than natural production capacity
 - Veitnam 85,430 (2005)
 - Thailand 13,627 (2005)
 - Cambodia 5,934 (2001)
 - Malaysia 36,136 (2004)



Mangrove areas decrease

Aquaculture farms

Thailand lost 71,825 hectares

Vietnam lost 902,900 hectares

Cambodia lost 1,438 hectares

Charcoal Kilns

Cambodia used about 100,000 tonnes/year of mangrove for produce charcoals

Country development

Malaysia lost about 100,000 hectares for construction of towns, road and airport



Coastal erosion and tourism

Coastal erosion

- Thailand has coastal erosion along its coastlines and has lost about 40,000 acres or 2,600 Km shoreline.
- Between 1984 and 1986, Malaysia studied along its 4,809 km shoreline and found about 1,390 km eroded

Tourism

- This industry has grown rapidly in a few years. Actually, the construction that's related with the industry has grown: such as hotels, resorts and restaurants.



Oil spill



The countries bordering the Gulf of Thailand (GOT) have an oil and gas industry in the GOT. Definitely, an oil spill will happen as found in Vietnam. As Vietnam faces oil spills, big and small, many times each year and the number of these has increased. It was shown that in 1997, an oil spill in Vietnam happened 4 times and extended to 6 and 10 in 1998 and 1999, respectively. Most spills were a moderate 2-3 tonnes on average.

A photograph of a sandy beach with three starfish and some seaweed. The starfish are light-colored with dark spots, and the seaweed is dark and tangled. The text is overlaid on the image.

Coastal Management in Malaysia, Vietnam, Cambodia, and Thailand

CZM Policy

Malaysia	Vietnam	Cambodia	Thailand
<ul style="list-style-type: none"> - Encourage participation and cooperation - Conservation and rehabilitation of forest and water natural resource - Pollution reduction - Establish master plan for reduce impact of water floods 	<ul style="list-style-type: none"> - Protection and conservation natural resources -Development oil and gas ,Maritime transport, and marine economic - Establish emergency plan of oil spill 	<ul style="list-style-type: none"> -Increase income to the resident - Derivers more protein to citizen - Promote social participation in the sustainable management 	<ul style="list-style-type: none"> - Promote community right and participation in natural management - Increase the strength of community and develop co-management - Decentralization to the Province and local organization - Kept under control of pollution regulation

CZM administration

Malaysia	Vietnam	Cambodia	Thailand
<ul style="list-style-type: none"> - Federal system (Federal, State, Local) 	<ul style="list-style-type: none"> - Central government to the local organization 	<ul style="list-style-type: none"> - Central government to the local organization 	<ul style="list-style-type: none"> - Central government to the local organization and local organization manage themselves (TAO)
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<ul style="list-style-type: none"> - National Coastal Erosion Control Council (NCECC) 	<ul style="list-style-type: none"> - National Government (MONRE) 	<ul style="list-style-type: none"> - The National Committee (land Management Urbanization and construction) - NCSC - CCU - Commission on Monitoring and Assessing 	<ul style="list-style-type: none"> - National Environment Board

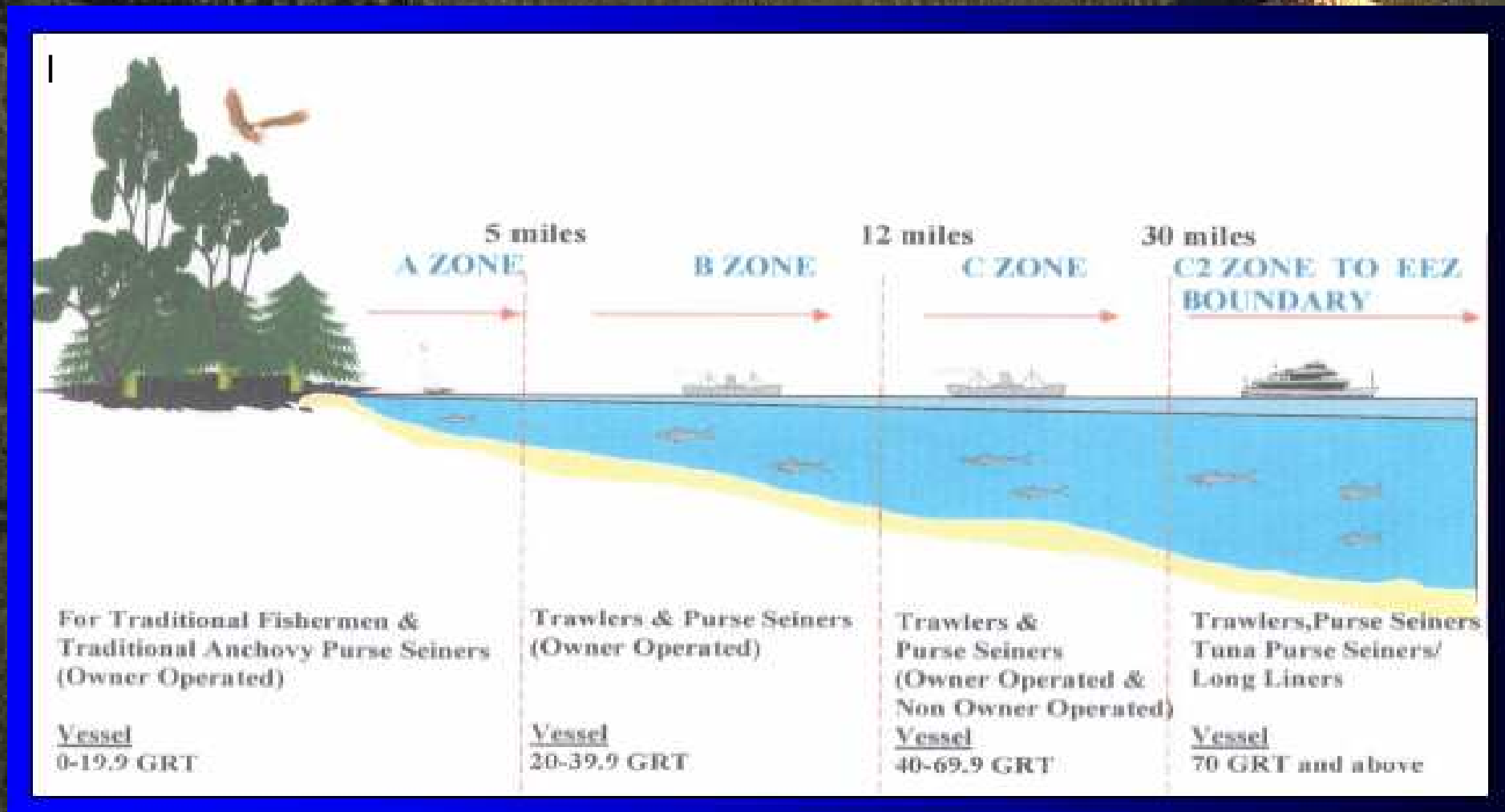
CZM legal and regulation

	Malaysia	Vietnam	Cambodia	Thailand
Protection environment	/	/	/	/
Protection and Conservation forest and National park	/	/	/	/
Land management	/	/	/	
Fisheries	/	/	/	/
Tourism				/
Shipping	/			
Construction	/			
Resource tax		/		

Maritime surveillance and enforcement

	Malaysia	Vietnam	Cambodia	Thailand
Territorial (Km²)	475,600	About 1,000,000	No data	304,000
Fisheries management	<u>Zoning</u>	x	x	<u>Close area</u>
Cooperation agencies	DOF, FDAM , Navy coast Guard, Marine police	DOF, Maritime police, Vietnam People's Navy	DOF, Maritime police, Navy	DOF, DMCR , Royal Thai Navy, Thai Marine Police
Enforcement	strong	weak	weak	weak

Zoning system in Malaysia



Source: Department of Fisheries

Close area in Thailand



Finance

	Malaysia	Vietnam	Cambodia	Thailand
Finance	Central Government & International donors (1% of GDP, 88% for federal Gov. 12% for 13 states)	Central Government & International donors	Central Government & International donors	Central Government and local organization (TAO) & International donors

Community management in Malaysia, Vietnam, Cambodia and Thailand



Community management in Malaysia

The Locally Based Coastal Resource Management in Langkawi project:

- Cooperation between DOF Malaysia and SEAFDEC-TD
- Stakeholder selected by the DOF from fisherman in community
- Committee assigned community laws; no fishing on Friday and in the event anyone in the community die.
- Traditional punish fisherman who illegal fishing in the proclamation area
- Participation in MSC and community activities



Community management in Vietnam

Community Based Management in Ha Lien village

- Conflict between traditional gears and electric gears in 1995.
- in 2002, the villagers formed a fisherman group called **Fishery Protection Group** to ban the electric gears.
- The outcome was that the number of fishers using electric gears declined in the village. Also, fishers from outside the village were punished and their equipment confiscated if they used this gear in the village's protected area.

No fisheries law so as to control and achieve sustainable management



Community management in Cambodia

Challenge:

- Fisherman engaged with the middle man
- Mangrove area declined by charcoal kilns

Opportunity:

- Community fisheries (CF) increased year by year
(165 in 2000 increase to 509 in 2007)

* The CF lack of budget support from Government
and now only 2 groups participate in MSC program

- The Participatory Management of Mangrove Resources (PMMR) project established to make Cambodians understand CBNRM concept with the practice of “learning by doing”





Fisheries Management: The case of Thailand



Challenge

- Total Number of fishing boats

Thailand has a problem with total number of fishing boats, especially small scale fisheries

- Overexploitation

- Lack of control and enforcement

- commercial boats licensed for one operation will at times have more gear onboard without license such as anchovy cage net and squid cage net.

- Lack of control for small scale operations inshore as an example thousands of unlicensed boats operating with impunity.



How is fisheries managed in Thailand?

1. Law and regulation

2. Surveillance and enforcement

3. Study, research and monitoring

4. Coastal resource enhancement

5. Encourage Community Based Management

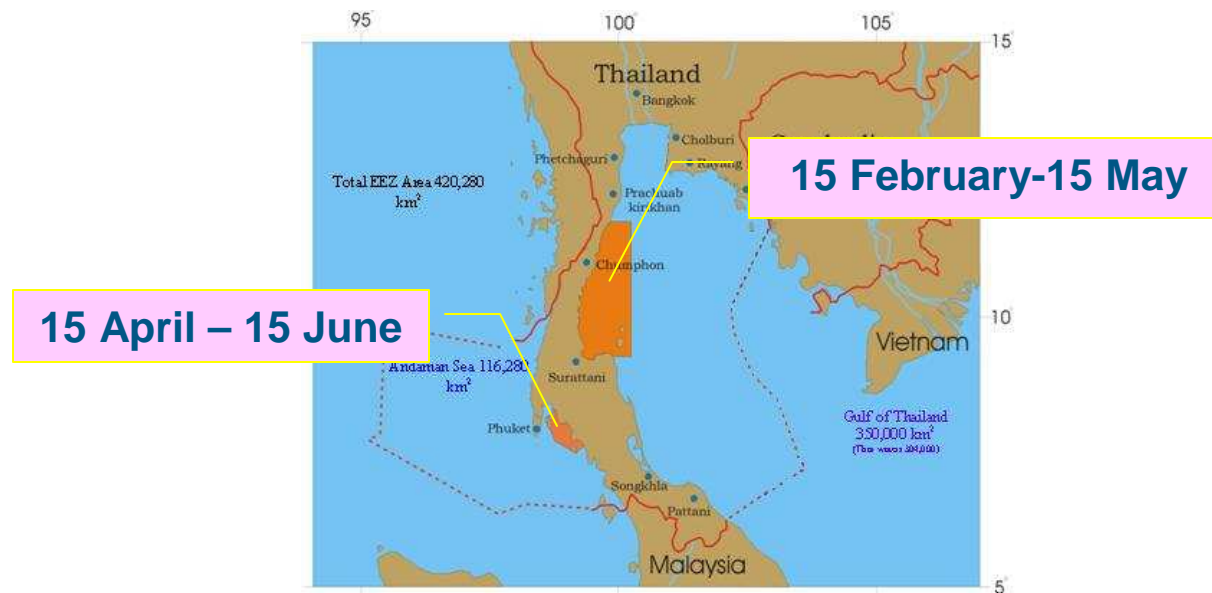


Law and regulation

1. Thai vessel Act of B.E 2481 (1938)

2. Fisheries Act of B.E 2490 (1947)

2.1 Prohibited areas for conservation of spawning grounds



Improved from Chankong, A. and S. Prisanhul, 2006



Law and regulation

2.2 Prohibited type of gears in some areas

In July 1972, DOF considered establishing a conservation zone within 3000 meters from the base lines in the GOT for the creation of a nursing area zone for juvenile fish and invertebrates. Trawlers and push nets with engines would be banned in this area



Surveillance and enforcement





Fisheries research

**DOF
(fishes,
mollusks and
squids)**

**DMCR
(Corals, sea
grasses, Sea
weeds,
mangroves and
marine mammals)**



Coastal resource enhancement



Establish artificial reefs



Release of fingerings



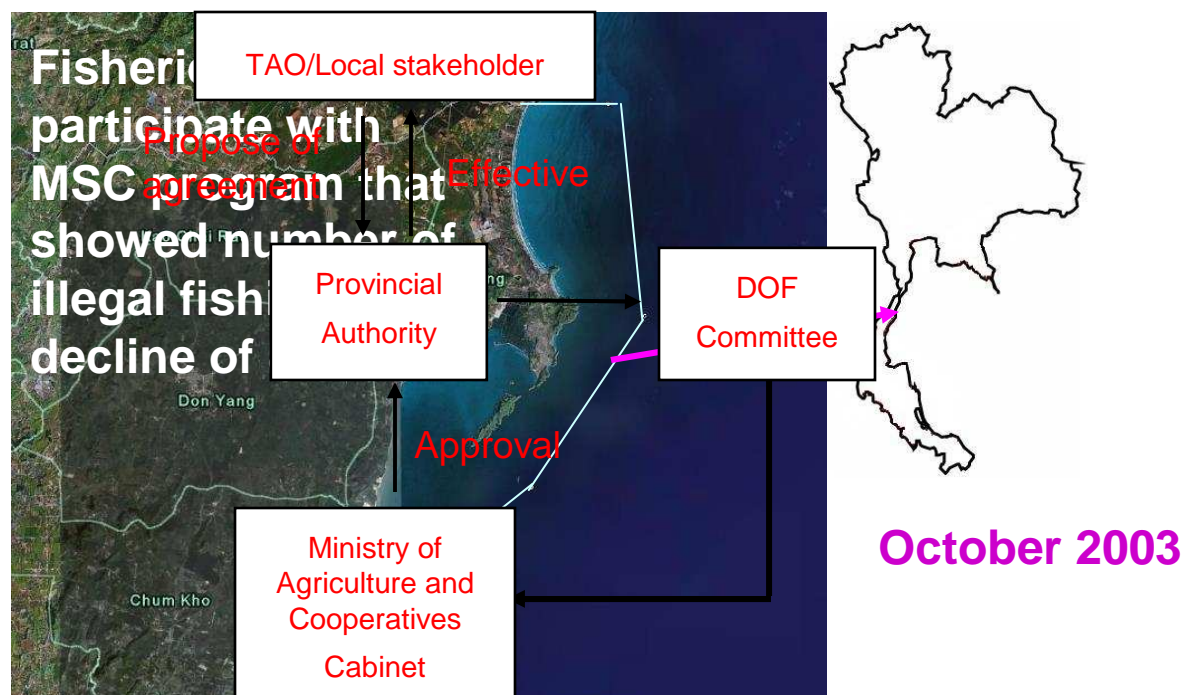
**Planting and protection
Mangrove areas**





Encourage community based management

DOF encouraged community based fisheries management by giving fishing rights to the fishers since 1999. For example, ICFM-PD project, Chumphon province. (2002-2006)



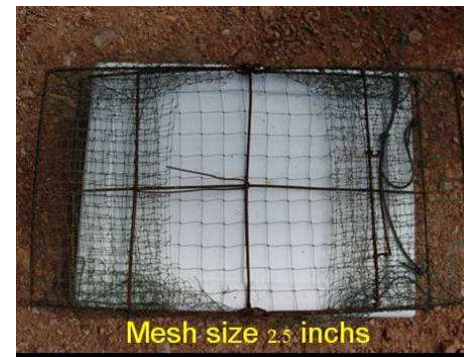
Marine territory of ICFM-PD project, Chumphon Province, Thailand

Source: adapted from Google Earth

ICFM-PD project

Blue swimming crabs conservation in ICFM-PD project

1. Increase bottom mesh size of crab traps

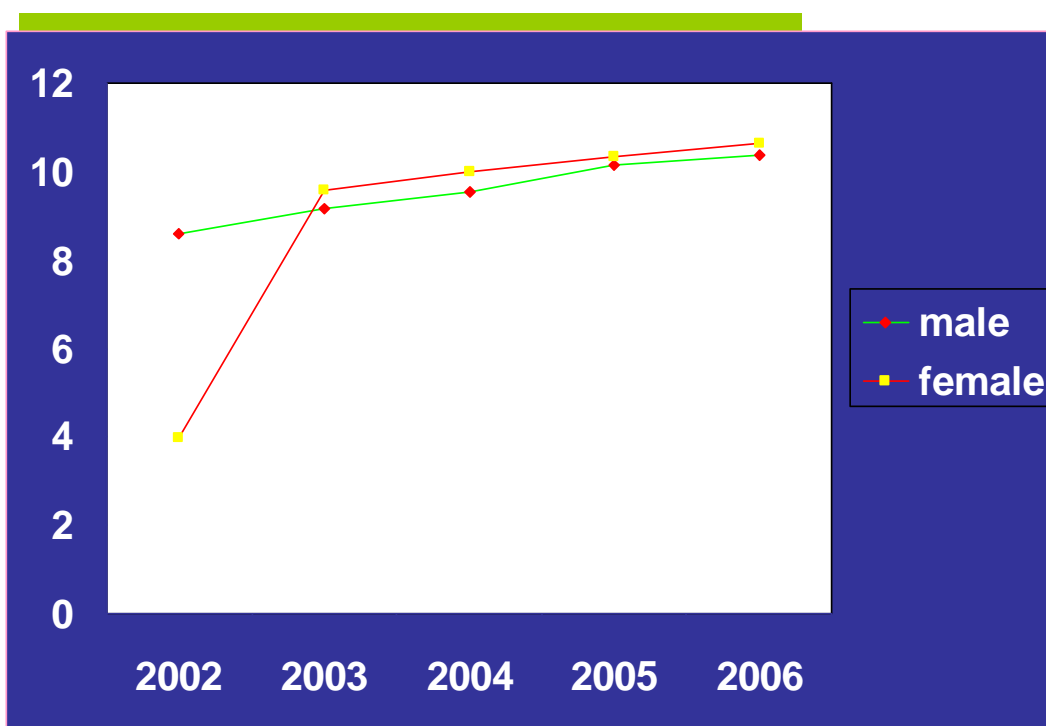


2. Enhancement of blue swimming crab called “Crab bank”





ICFM-PD project



Source: Chumphon Marine Fisheries Research and Development Center

Conclusion

- cooperation between central Government and local government agencies also between Government and stakeholders is important to the success of coastal management
- Coastal management should be flexible based on the necessity in each country and peoples needs.
- Laws and regulations are important for sustainable resource management
- Community management is significant to sustainable resource use



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(Thank you)

