

# Mangroves Situation Analysis in Vietnam

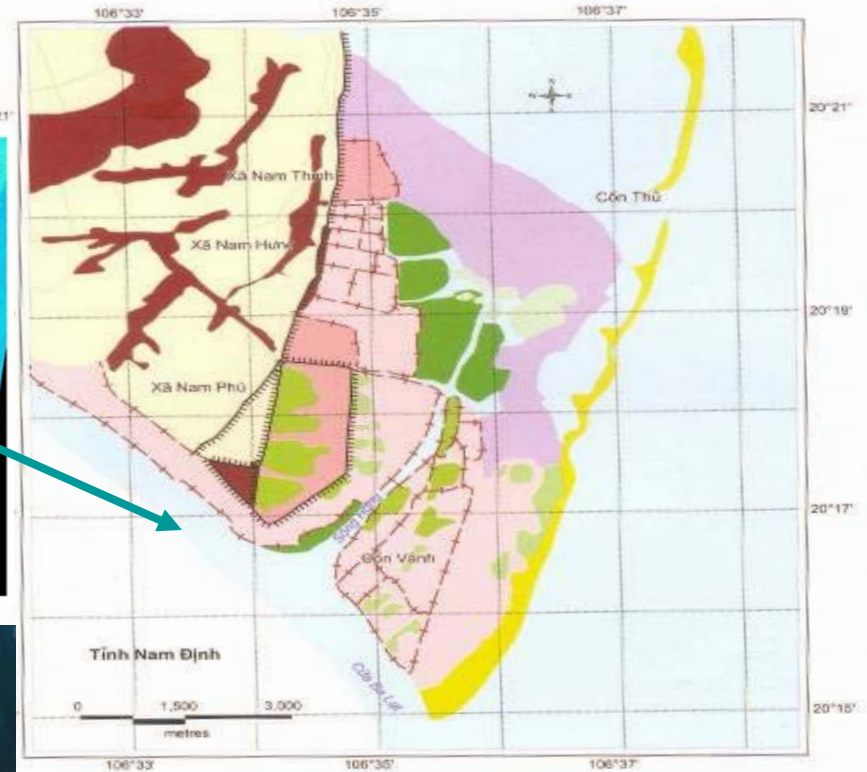
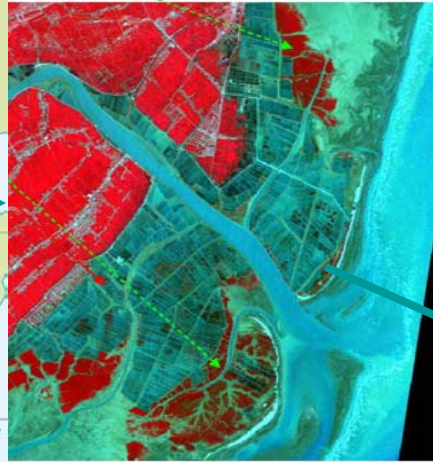
VNU/HNUE

MANGROVE Consortium Workshop  
and Project Management Group Meeting  
hosted by MERD, VNU, NACA  
9th - 13th July, Hanoi, Vietnam

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Developing knowledge-based approaches  
to reconcile multiple demands

# THE STUDY SITE



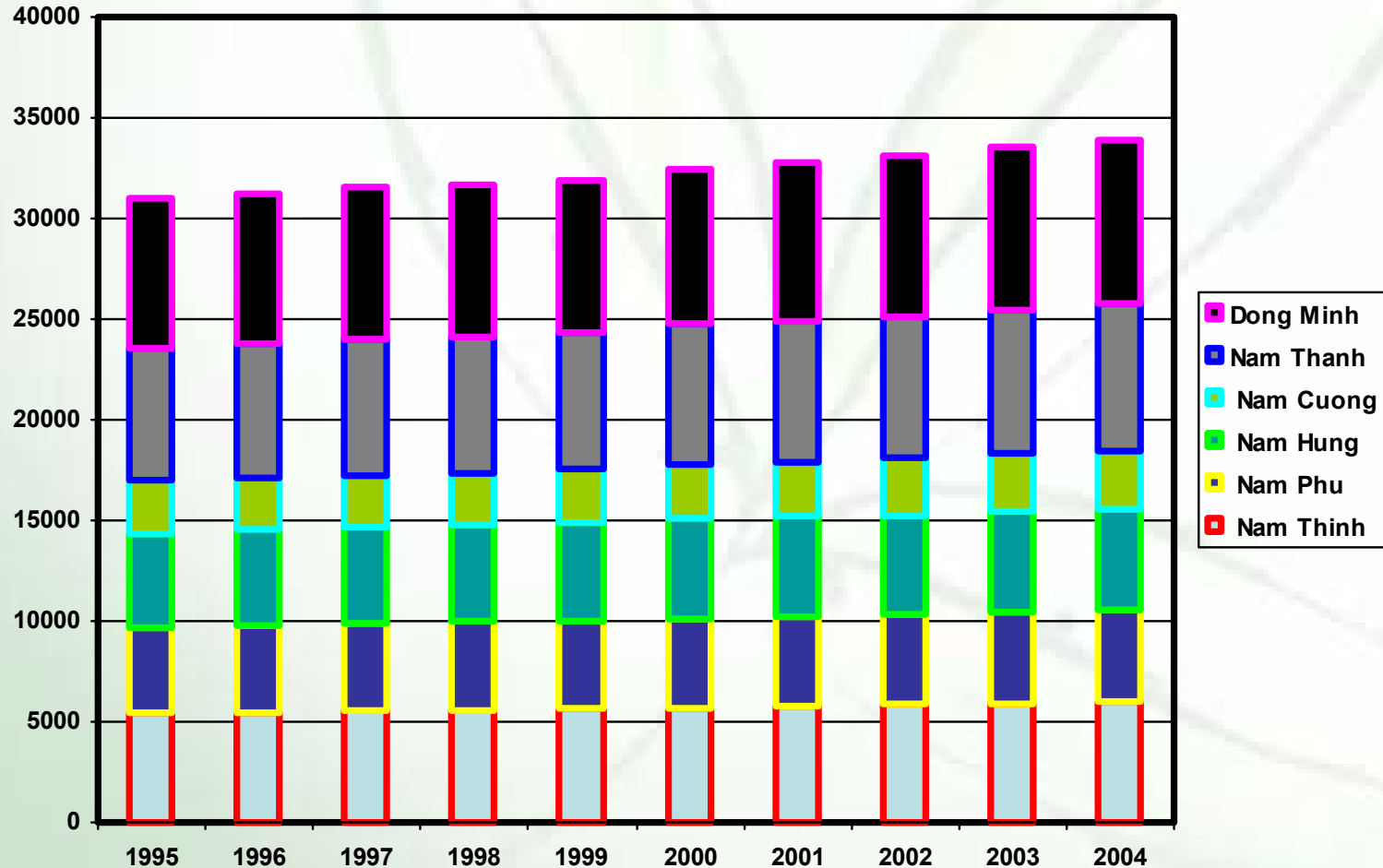
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# MANGROVES IN THE STUDY SITE: SOCIAL AND NATURAL RESILIENCE



# Population of coastal communes of Tien Hai



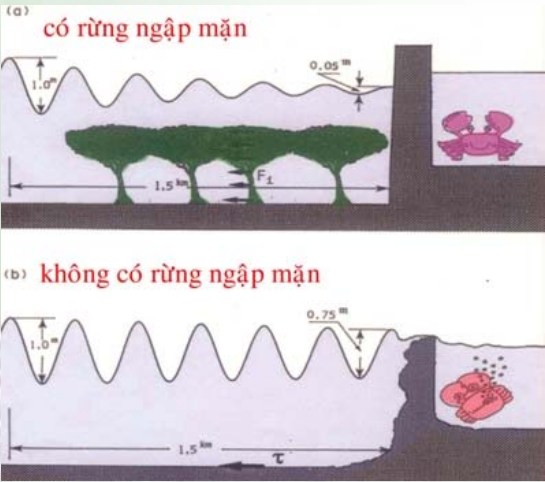
## DIRECT VALUES OF MANGROVES AS LOCAL LIVELIHOODS IN THE STUDY SITE



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# ENVIRONMENTAL VALUES OF MANGROVES IN THE STUDY SITE



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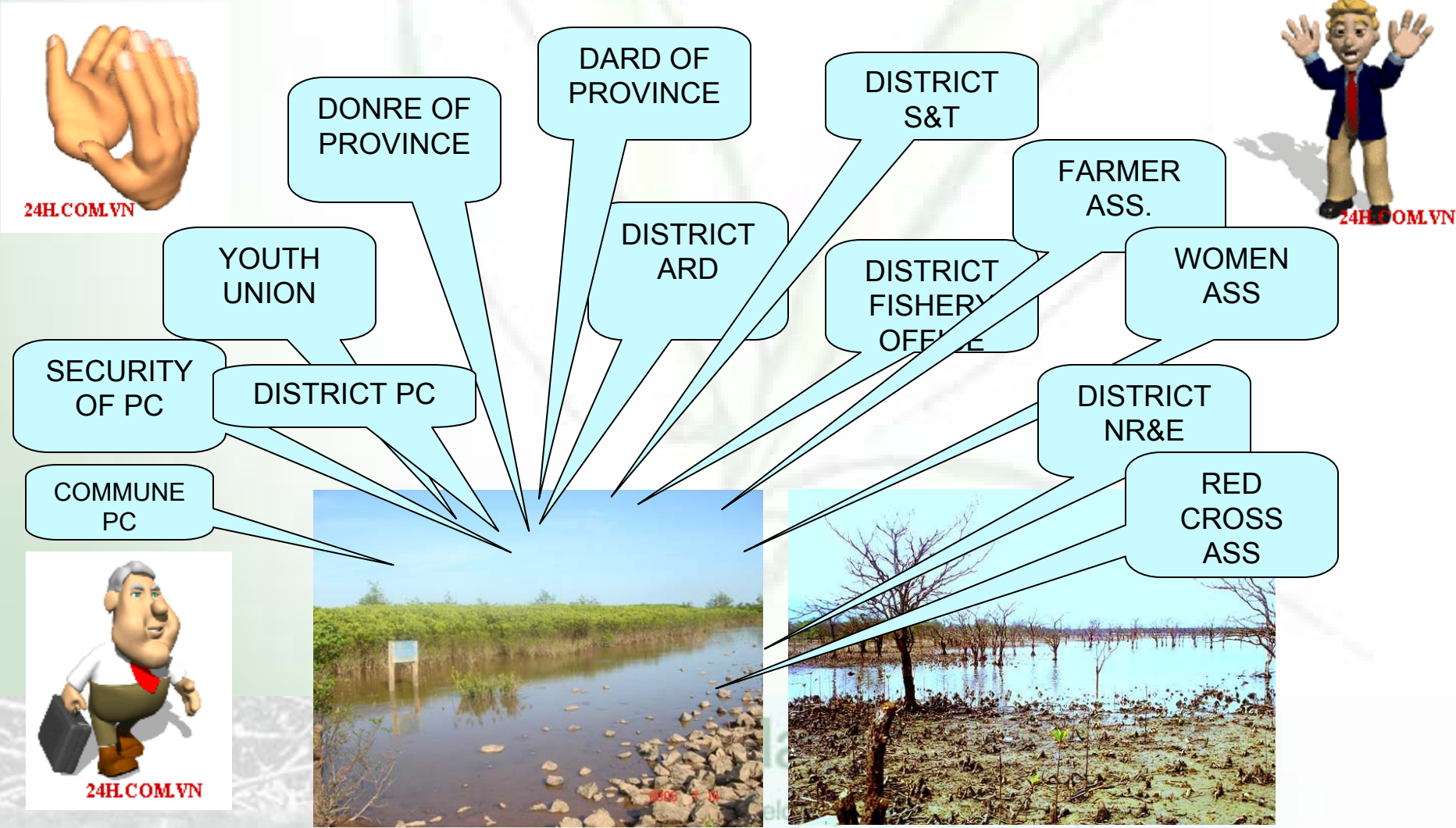
# IMPROVING LOCAL AWARENESS AND KNOWLEDGE



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# Stakeholder analysis





# EVIDENCE-BASED MANAGEMENT



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# Mangrove-related stakeholders

Group No	Name of Organizations/Groups	Positive Activities	Negative Activities
Group 1	Group of mangrove planting and protection	<ul style="list-style-type: none"> <li>- Plant and protect mangroves</li> <li>- Propaganda</li> <li>- Act as an advisor for Commune People's Committees</li> </ul>	None
Group 2	Manual natural aquatic collectors	<ul style="list-style-type: none"> <li>- Catch barnacles</li> <li>- Inform forest guards of bad actions</li> <li>- Warn mangrove destroyers of their bad actions</li> </ul>	<ul style="list-style-type: none"> <li>- Move around and trample down young seedlings</li> <li>- Chop down trees for firewood</li> </ul>
Group 3	Natural seafood exploiters with tools (net, gillnets (locally called "dang", trawlers locally named "te", push-net)	None	<ul style="list-style-type: none"> <li>- Destroy young seedlings</li> <li>- Destroy the environment</li> <li>- Cut down old forests</li> <li>- Limit propagule dispersal</li> </ul>
Group 4	Aquaculture, clam farming	<ul style="list-style-type: none"> <li>- Mangrove planting for protection of pond embankments</li> </ul>	<ul style="list-style-type: none"> <li>- Destroy mangroves ( pond surrounding resulting in inundation and thus, destroying mangroves inside)</li> <li>- Using chemicals negatively affecting natural and water environment</li> </ul>
Group 5	Cattle (buffaloes and oxen) tending	<ul style="list-style-type: none"> <li>- Provide information, protect mangroves</li> <li>- Supply manure</li> </ul>	<ul style="list-style-type: none"> <li>- Spoil young forests</li> <li>- Feed tree leaves leading to fall of trees</li> </ul>
Group 6	Administration and social organizations	<ul style="list-style-type: none"> <li>- Guide mangrove cultivation and protection</li> <li>- Propagandize and deal with acts of violation</li> <li>- Invest in and develop mangroves</li> </ul>	<ul style="list-style-type: none"> <li>- Take unreasonable decisions on forest exploitation resulting in forest destruction/loss.</li> </ul>

# STAKEHOLDER ANALYSIS

**Note:**

- Farmer Association (1)
- Women Association (2)
- Youth Union (3)
- War Veteran Association (4)
- Red Cross Association (5)
- Conservation club (6)
- Study Extension Association, Schools(7)
- Elder Association (8)
- VAC Association (9)
- Bee Keeping Association (10)
- Health Clinic (11)
- Clam Farming Association (12)
- Agri-Power Cooperative(13)
- Mangrove planting and protection group (14)

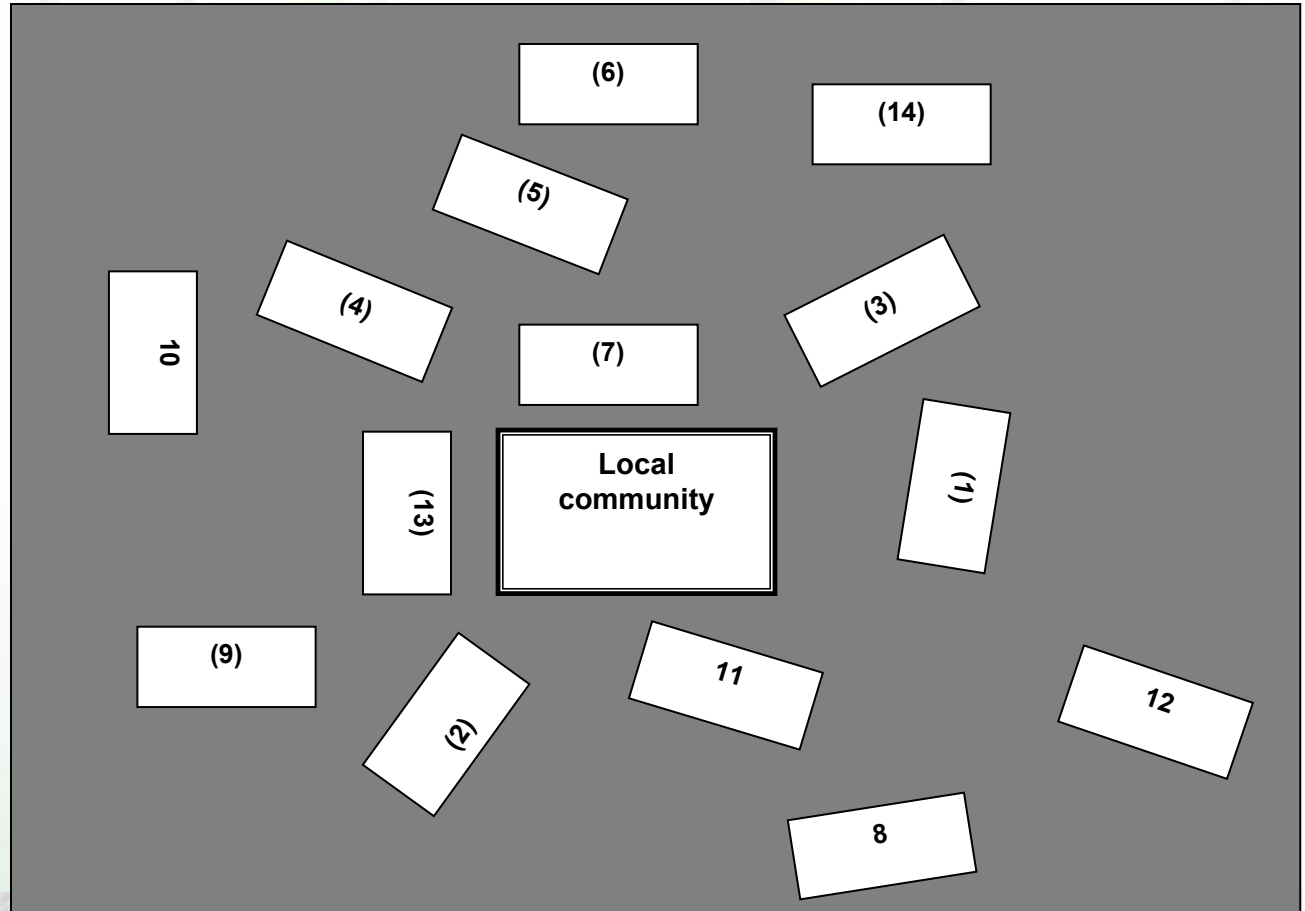
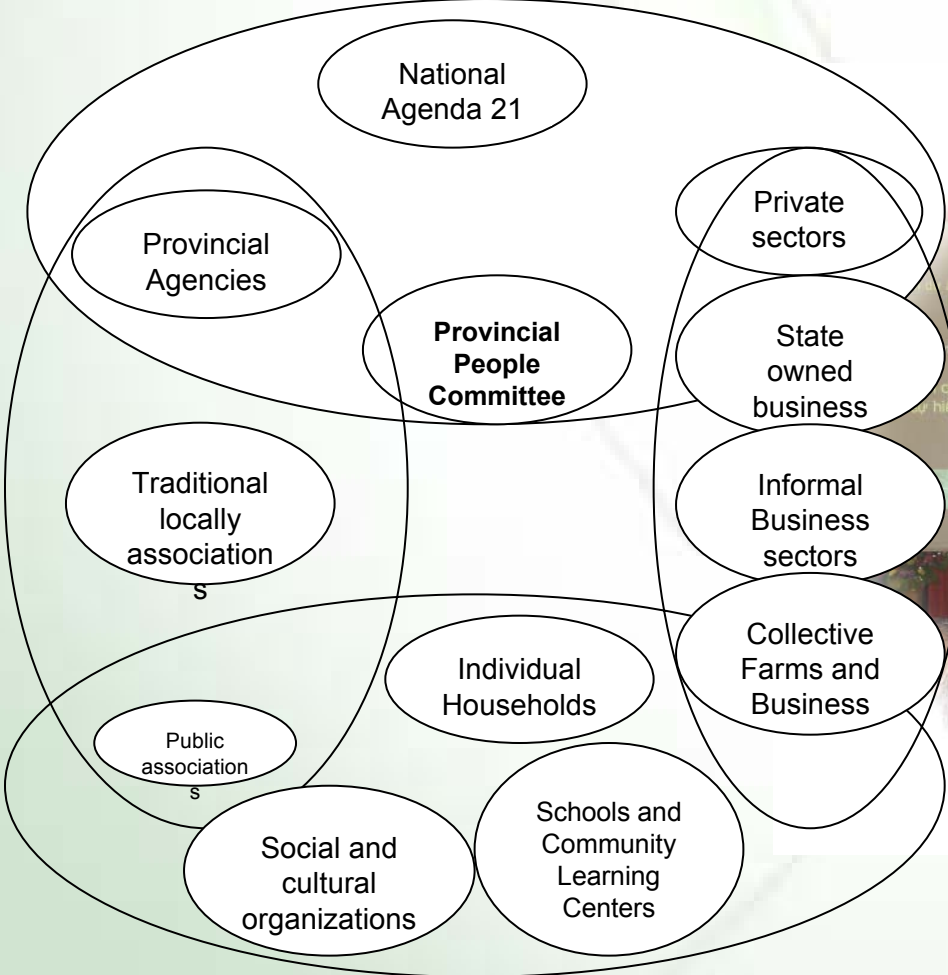


Diagram 1. Relation between organizations and local community life

# Stakeholder's position and importance



Venn diagram for Tien Hai Mangrove Stakeholder Analysis

# Livelihood ranging in three coastal communes in Tien Hai (1-10 point)

Activity	Labor	Return	Invest	Time & intensity	Risk	Total score	Rank
1. Gardening	2	8	7	2	3	22	9
2. Fish pond	2	7	6	1	4	20	10
3. Rice farming	5	4	5	10	6	30	7
4. Pork rearing	6	5	6	11	4	32	6
5. Sows	4	4	4	10	4	26	8
6. Chickens, ducks rearing	3	6	5	13	8	35	3
7. Others rearing	5	5	5	12	5	32	6
8. Salt making	7	6	6	5	6	30	7
9. Shrimp farming	8	9	10	10	10	47	1
10. Clam farming	8	10	8	8	4	38	2
11. Aquatic fishing by hand	2	10	2	3	5	22	9
12. Aquatic fishing by boats, nets	8	7	7	4	7	33	5
13. Side-occupation	8	8	5	7	6	34	4
14. Hired labor	4	10	3	6	3	26	8

## *Gender analysis: Percentage contribution of man and women to family income in Tien Hai*

Activities	Women's contribution (%)	Men's contribution (%)
1. Gardening	20	80
2. Fish pond	30	70
3. Rice farming	50	50
4. Pork rearing	80	20
5. Sows	85	15
6. Chickens, ducks rearing	90	10
7. Others rearing	90	10
8. Salt making	85	15
9. Shrimp farming	15	85
10. Clam farming	20	80
11. Aquatic fishing by hand	95	5
12. Aquatic fishing by boats, nets	45	55
13. Side-occupation	50	50
14. Hired labor	45	55
Average	57	43

# Evaluation of the role of stakeholders related to local communities

	Organizations	Economic (score)	Technical (score)	Spiritual (score)
1	Farmer Association	9.8	9.4	6.9
2	Women Association	9.6	9.1	8.1
3	Youth Union	8.3	8.7	9.2
4	War Veteran Association	7.8	7.1	8.9
5	Red Cross Association	6.8	6.3	8.7
6	Conservation Association	8.1	7.6	8.0
7	Association for Extension, Community Education, Schools	6.6	8.0	9.2
8	Elder Association	5.4	4.8	8.8
9	VAC Association	9.1	9.1	7.0
10	Bee Keeping Association	8.6	7.9	6.4
11	Health Clinic	6.9	8.6	8.5
12	Clam Farming Association	9.5	7.7	5.8
13	Cooperative for Agriculture, Utility (Electricity, Water)	9.8	9.8	7.4
14	Mangrove Planting and Protection Group	7.7	7.9	6.8

# Assessment of cooperation (above) and conflict (below) of stakeholders in Tien Hai

	1. Group of mangrove planting & protection	2. Manual natural aquatic collectors	3. Natural aquatic exploiters with tools	4. Aquaculture owner	5. Cattle tenders	6. Administration & social organizations
1. Group of mangrove planting and protection	A1	3.8	2.1	3.4	2.1	9.3
2. Manual natural aquatic collectors	7.1	A2	3.3	3.5	2.1	3.8
3. Natural aquatic exploiters with tools	7.9	3.8	A3	3.1	2.9	2.4
4. Aquaculture owners	5.8	3.8	4.5	A4	1.6	4.4
5. Cattle tenders	7.1	2.9	3.1	5.1	A5	3.6
6. Administration & social organizations	0.1	5.1	6.4	4.3	5.2	A6



# Recommendations from local community

- Property right of land
- Owned land: shrimp ponds, clam farming (mud flat): budget for land bidding, suitable species for planting or compensation budget for site clearance
- Public land: resurvey for land fund; Nam Think (bid for one-year clam farming land under the planning)
- Budget: State investment (70% or 100%)
- Mobilizers: Commune's People's Committee, mass organization, encouragement/mobilization. Mangrove planting and management should be assigned to individual households and then the planted mangroves returned back to local authorities.
- Land available for planting
- Should plant a mangrove belt along the seadyke in accordance with the ordinance
- Lowly effective farming ponds: should invest in mangrove nursing for mangrove –shrimp combination model  
Bare flat: young sandy soil; suitable mangrove species should be found for sea
- Invasion Model: pilot model or expansive/massive model for the whole pond
- Owners Advocacy/awareness raising combined with economic benefits  
Implementer: pond owners, different departments/divisions
- Management: party committee, Commune's People's Committee, Women Association, departments/divisions, specialized group, budget

# THE CAUSES OF MANGROVE DESTRUCTION

- CONVERSION TO POND AQUACULTURE, PARTICULARLY SHRIMP
- CLEARANCE FOR URBANISATION AND PORT DEVELOPMENT;
- SEDIMENTATION OF THE RIVER MOUTH



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# CURRENT THREATS TO MANGROVE SYSTEMS

## ***Anthropogenic Threats***

- Reclamation and infrastructure development
- Pollution from shrimp farming
- Conversion to industrial parks, ports and harbours
- Conversion-to shrimp culture potential long-term threat

## ***Natural Threats***

- Sea level rise
- Episodic events – tsunami, typhoon.

## ***Transboundary Influences***

- Regional trade – Charcoal, wood chips

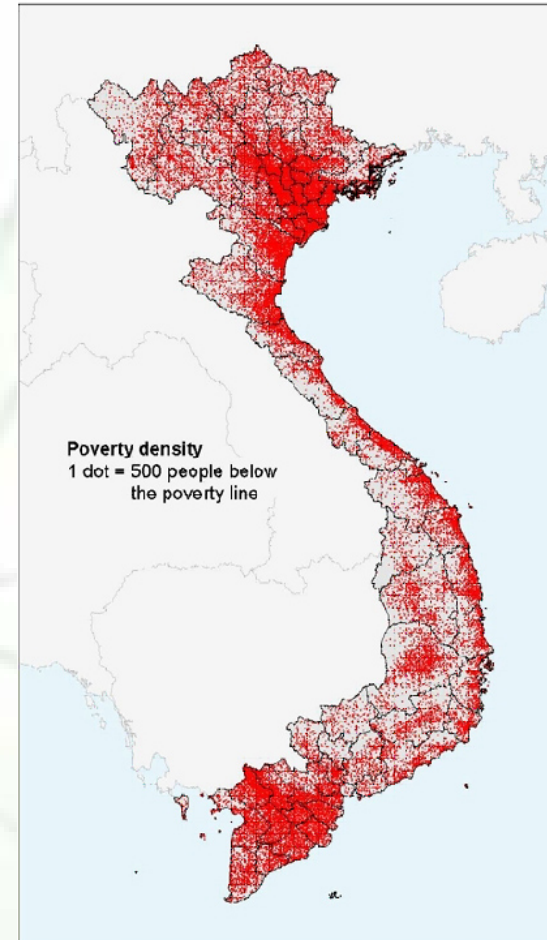


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# CHALLENGES FOR SUSTAINABLE MANGROVE USE

- Lack of sustainable financing
- Poverty of coastal communities
- Weak or non-existent law enforcement
- Lack of understanding on the part of the general public and decision makers regarding the functions and values of mangrove ecosystems.
- Ineffective management systems and land-use planning
- Lack of experience and techniques for multi-species replanting
- Lack of long-term regional and international co-ordination and co-operation; and,



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# CURRENT NEEDS IN MANGROVE RESTORATION

- **A PARAMOUNT CONSIDERATION IS THE NEED TO DIVERSIFY THE RANGE OF SPECIES USED IN REPLANTING/ RESTORATION WITH A CONSEQUENT GREATER UNDERSTANDING OF:**
- **THE SITE SPECIFIC LIMITS TO SPECIES DISTRIBUTIONS IN RESPONSE TO ABIOTIC ENVIRONMENTAL FACTORS.**
- **HANDBOOKS OF REPLANTING TECHNIQUES AND SIMPLE GUIDES TO IDENTIFICATION OF APPROPRIATE ENVIRONMENTAL CONDITIONS FOR DIFFERENT SPECIES**
- **NATIONAL PROGRAMMES THAT FOSTER MULTI-SPECIES REFORESTATION BY PROVIDING CONCRETE INCENTIVES**



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# Proposed outreach documents



Xin trân trọng cảm ơn



Thanks



Merci

Terima kasih

Khob khun krub



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