

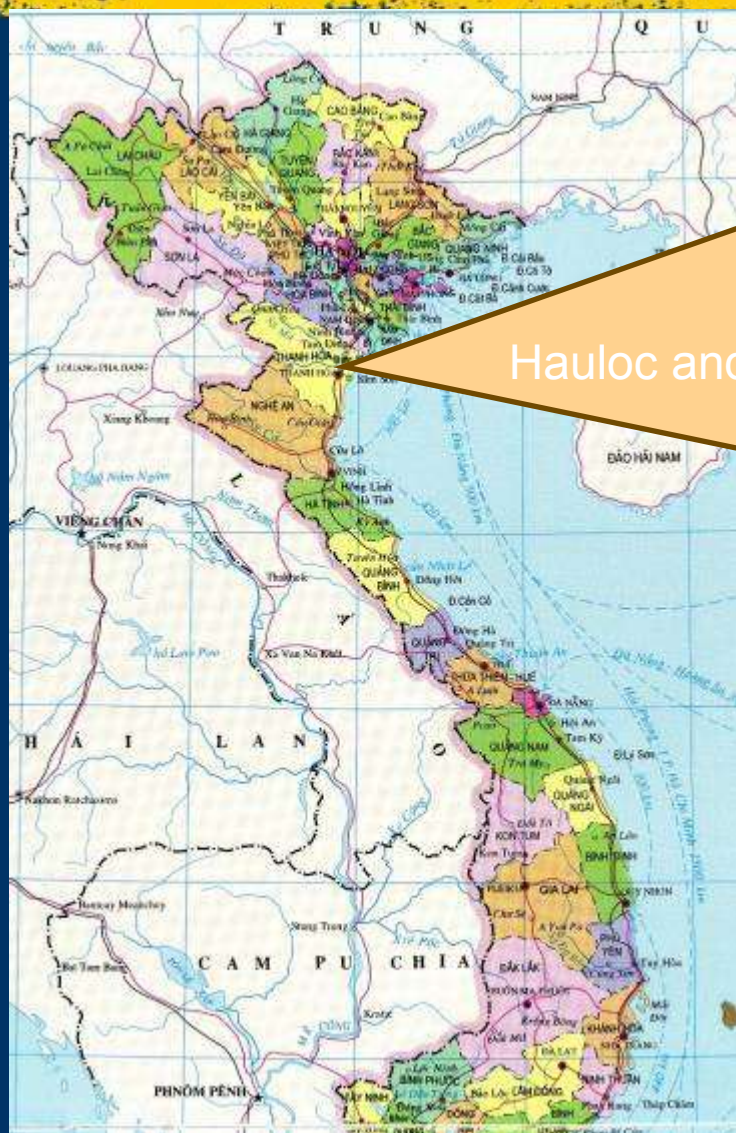
Mangrove and Coastal Community Resilience

1st Asia Parks Congress - Sendai Nov. 2013

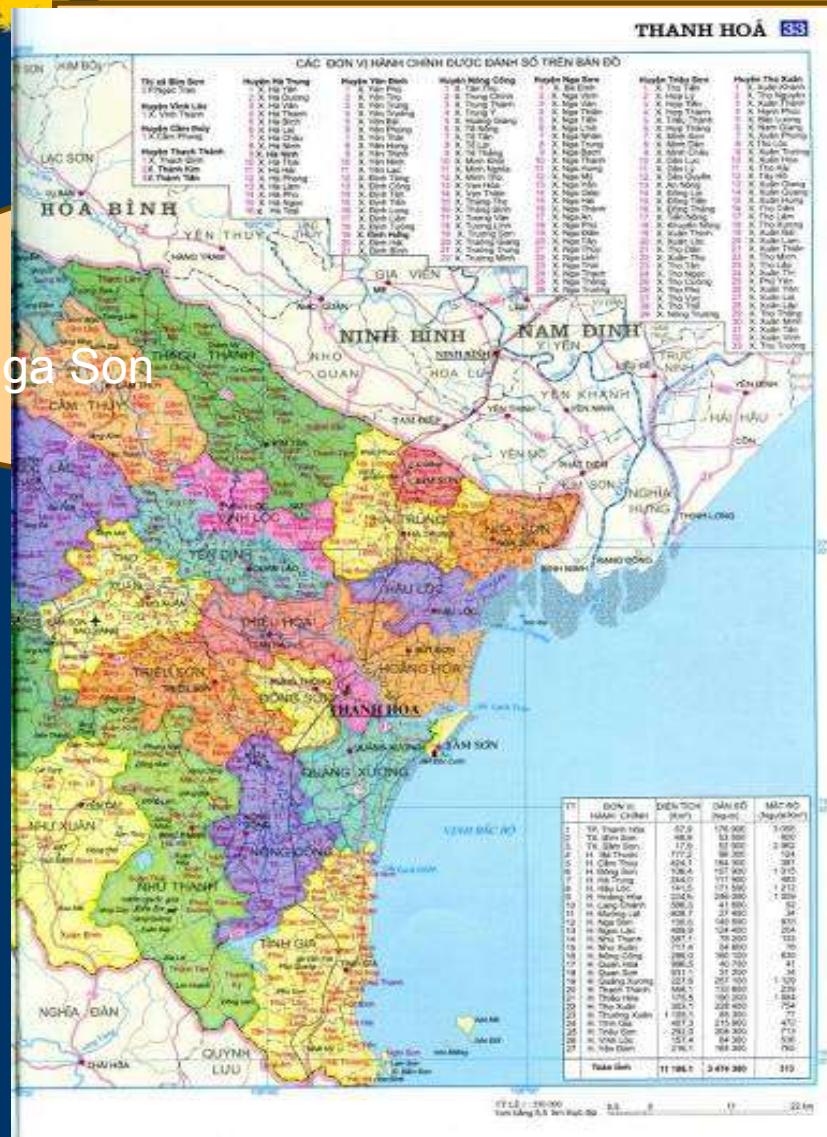


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Map of Hau Loc and Nga Son District



Hau Loc and Nga Son



Back ground information

Hazards and climate change

- Storms
- Typhoons and sanitation
- Changed rainfall pattern and drought

Main livelihood: Agriculture

Project objectives: Increase the resilience of coastal communities in Thanh Hoa province through strengthening Community Based Disaster Risk Management s and climate change adaptation

Integrated approach – Mangrove as core

- Integrated approach to disaster risk reduction, climate change Adaptation and the role of mangrove
- Awareness raising, education and communication on disasters and climate change integrated into activities of the Green Clubs and local community
- Village and commune DRR and adaptation planning
- Integrate DRR,CC into local development plan
- Research on CC and resilient livelihoods: bio fertilizer, chili, worm raising, bio garden models

Implementation Strategies – participation, ownership and use of traditional knowledge

- Stakeholder involvement
- Participatory planning (inc land use) and design
- Using traditional knowledge on planting & protection, resource management: planting time, seeds/seedlings, how to protect young trees
- Maximize local food and seeds in sustainable livelihoods
- Large mobilization of local people in project activities, 80% women
- Community based management mechanism
- Community to work out the rules and regulations



Results

- 85% of the vulnerable households have improved their awareness of CC & DRR and their behavior
- local government have strengthened skills in community-based mangrove forest management and community-based disaster risk management planning
- 412 ha of mangrove well planted and maintained
- The Code of conduct for community-based mangrove management system established, rules and regulations put into force
- 1,868 households benefited from resilient livelihood models
- Active participation of village people, women in particular, has lead to strong ownership and sustainability.

Long term benefits of mangrove

- Protects coast line of 12 km (population approx.50,000)
- Mitigates impact of storms, typhoons and sea level rise
- Improves sustainable source of livelihoods for local communities:
 - mangrove dependent resources: crabs, oysters, shrimp/fish breeding grounds, fuelwood etc
 - protection of adjacent livelihood systems – clams, shrimps ponds, fishing etc
- 1,000 households benefit aqua products from mangrove.

Contribution to development

- Reduce disaster risks at relatively low cost (approx. \$1 per mangrove: saves \$186 cost of storm damage)
- Model success influences similar government and NGO projects to adopt community-based or co-management approach
- Important contributions to disaster risk reduction and climate change adaptation and high storage of carbon

Some pictures about project activities

412 ha of Mangroves planted



Agreements with local authorities: Meeting with DARD, DPC on Mangroves Management and Protection and Land Use rights. Group Discussions on setting up CBMMS. Agreement to allocate to villages.



Commune /Village participatory Land Use Planning



- Workshops on PLUP: 120 participants including District authorities
- Inventory of mangroves and mangrove resources
- Agreed rules and regulations

Commune Participatory Land Use Planning



- Two Workshops on PLUP: 120 participants including District authorities
- Inventory of mangroves and mangrove resources
- Agreed rules and regulations

Selecting seeds and planting by seeds



Mangroves Nursery garden

- Stocked seedlings of Candelia



Transportation and planting seedlings out to the sea



Community maintenance of Mangroves



Maintaining for young trees planted



Training of Trainer on DRR and CC in 2011



Making Disaster and CC Resilient plans at village level in 2012



Environment, Mangroves, DRR, CC Education

Contests

Art, song, drama contests for children and young people green team with over 15,000 audiences



Contest on DRR, CC, and Environment and Mangroves protection

A Green Club's members attending contest "We are green Messengers"



Communities exploit sea food and raise ducks in mangrove forests



Bio Fertilizer models making by Green clubs



Training and making bio fertilizer at the field

Green Team and Youth Union Members Maintaining Mangroves cleaning the beach

10 Green Clubs with 164 Members established in 10 Villages



Worms raising for husbandry



Bio-fertilizer: sustainable and adaptive to climate change development



Thank you

