

# Building coastal resilience in Vietnam

*Integrated approach to mangrove management,  
disaster risk reduction, climate change adaptation  
contributing to climate change mitigation*

CARE International in Vietnam

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# Outline

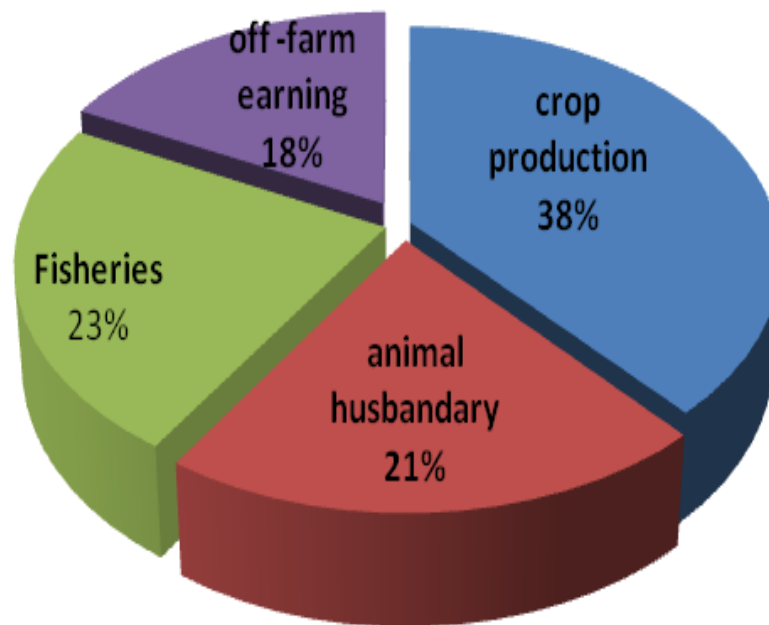


- Background
- Overview of project site
- Project's timeline
- Success factors
- CARE's integrated approach
- Challenges
- Key lessons learnt
- Recommendations



# Background (cont.)

**Figure 2: Income structure of Daloc commune**



Total area: 11,116.3km<sup>2</sup>  
Population: 8424 inhabitants  
2074 households  
10 villages

# Climate Change and Perceived Impacts in Vietnam and in Da Loc



- Growing intensity of **storm, typhoons (Damrey typhoon 2005)**
- More extreme and unpredictable weather conditions (storm, flood)
- Saline intrusion
- More cold fronts
- Abnormal rainfall
- ➔ Exacerbate hardship





# Climate Change Vulnerabilities

## Exposure and sensitivity

- Along coastline
- High population concentration
- Low elevation area: 0.8 – 2 m above sea level
- High poverty rate: 25% in 2011
- Out migration of young labour (40% men leaving)

# Timeline



- **1982** The Government begins to construct a sea dike in Da Loc commune.
- **1989** The Japanese Red Cross and partners launch a mangrove afforestation project on 350 hectares of land.
- **Pre-2005** Only 15 to 20% of the mangroves from the Red Cross project survive.
- **2005** Typhoon Damrey strikes, causing widespread destruction to the commune, damaging the sea dike

# Timeline (cont.)



- **2006** The Government, CARE International, and Da Loc citizens establish the Community Based Mangrove Management Board (CBMMB).
- **2007–2008** CARE- leads establish a mangrove nursery, spanning approximately 150 hectares: survival rate ~ 70-80%
- **2009** The Government signs a five-year agreement for Community-Based Forest Management
- **2010** This model was replicated to other communes (Nga Thuy): total of approximately 500 hectares.



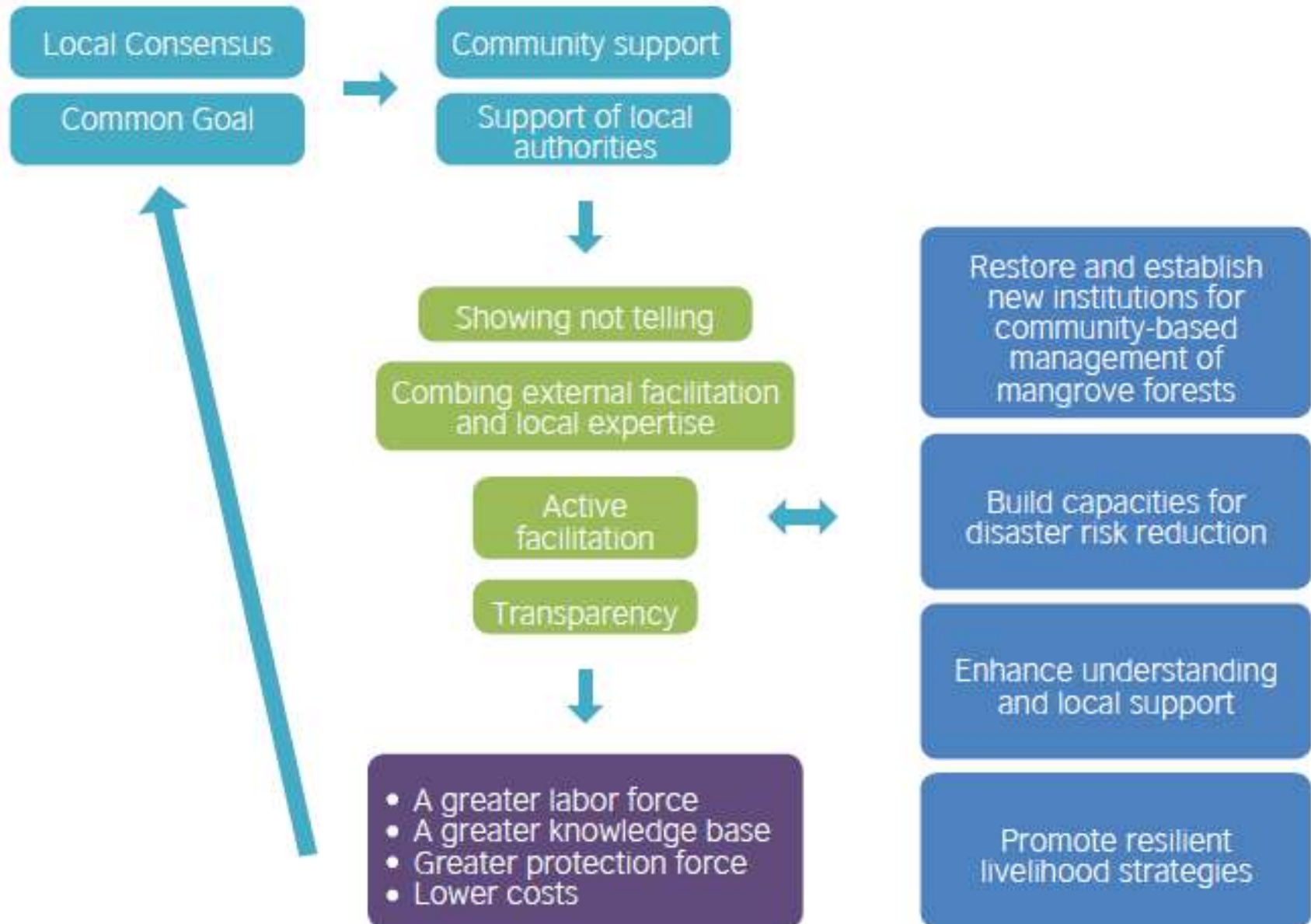
# Factors contribute to the success of the project



- Local people awareness
- Participation of local people in the project: community organisations and individuals of all ages
- Make use local knowledge: selecting seedlings, planting, caring and managing
- Social activities: camping, integration mangrove protection issues in social contests/ festivals
- Involvement of government in allocating rights for the community
- Benefits of the mangroves to the community

## Success Factors

## The Integrated Approach



# Participation and local knowledge



Campaign

Selection of local seeds/ seedlings



# Local knowledge in planting mangroves and removing barnacles











# Participation of youth union in caring mangroves: removing barnacles and wastes





Organising contests at schools for children to learn about roles of mangroves and how to protect mangroves





## Management mechanism:

- Rights to manage (5 years duration)
- forming management regulations, MB
- Village representative do patrolling: all villagers involving in management & protection
- Every 3 months allow people to collect aquatic resources: fishes, crabs, mollusks, shrimp,...
- Contribute 5% of harvest for MB

## Community benefits:

- Collecting aquatic resources
- Duck keeping
- Be protected from disasters
- Reduced waste dispose into the community
- Better environment



# Challenges

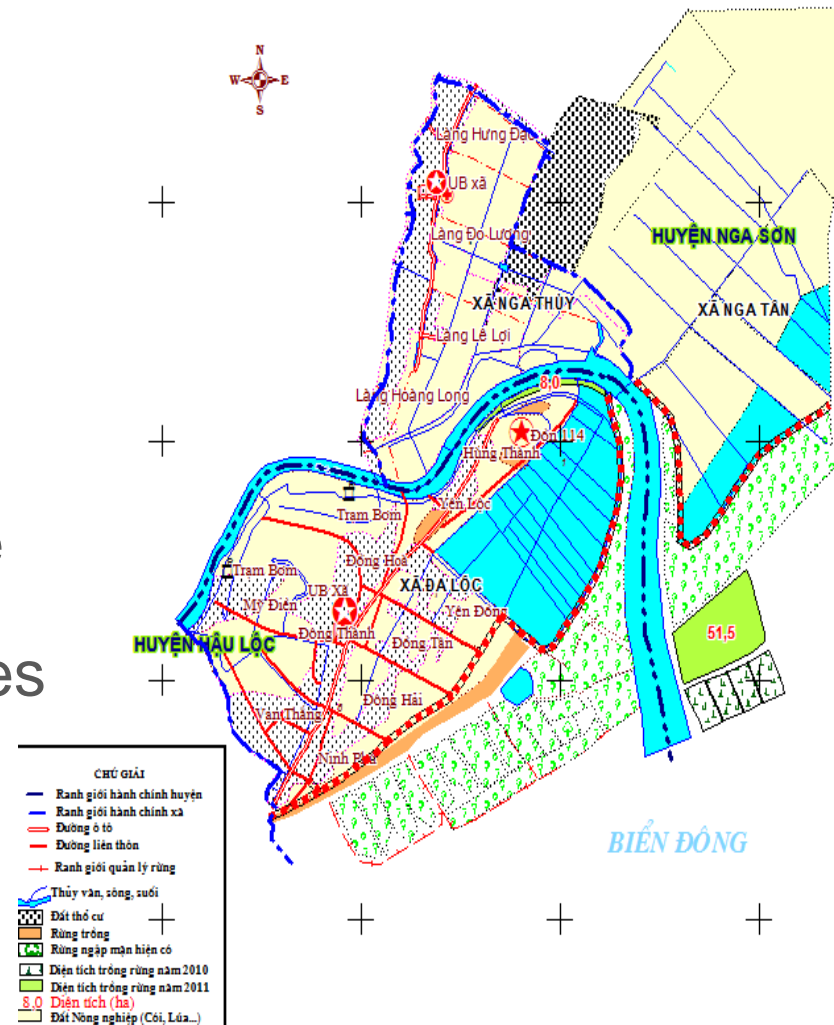


Short term rights over the forest management board

Long term management, protection strategy of the forest

Related policies on coastal land use

Development of aquaculture activities in the area



# Key lessons learnt



- This project illustrates the potential for adaptation activities and mitigation goals to be mutual reinforced (mangroves capture 4 times more carbon than tropical rainforests – Donato et al, 2011)
- Long term official recognition of community management rights over the mangroves need to be in place
- Equitable benefit-sharing mechanisms are ensured and participatory decision-making processes are incorporated for the well-being of vulnerable community members
- Trade-offs have emerged that may threaten the project → need careful analysis on costs and benefits of both adaptation and mitigation action
- Locally adapted knowledge and awareness can be highly beneficial to projects



### **Building Coastal Resilience in Vietnam**

An integrated, community-based approach to mangrove management, disaster risk reduction, and climate change adaptation.

Experiences from CARE in Da Loc and Nga Thuy Communes, Thanh Hoa Province, 2006-2014

BRIEFING FOR NATIONAL POLICY-MAKERS

# **A COMMUNITY - BASED APPROACH TO MANGROVE MANAGEMENT, DISASTER RISK REDUCTION, AND CLIMATE CHANGE ADAPTATION**

Experiences from CARE in Da Loc and Nga Thuy Communes, Thanh Hoa Province, 2006-2014

# Recommendations

- **National level**

- Policies should enable an integrated approach to climate change adaptation and disaster risk reduction
- New policies on Coastal Forestry, currently under development, must support long-term community-based management of mangroves
- National programs and policy on climate change should support the role of communities, particularly in managing coastal resources as an adaptation strategy
- Coordination among government agencies horizontally and vertically should be ensured
- Carbon rights and benefits need to be addressed to ensure the community support
- Policy makers should identify models of successful mitigation – adaptation initiatives and scale up where appropriate



# Recommendations (cont.)

- **Local level**

- Local governments operating in coastal communities can work with external experts and learn innovative management approaches from other provinces
- At provincial and district levels, officials can promote sustainability of community-based management systems by decentralizing decision-making authority and resources
- At the commune levels, officials and communities can apply the CMMB, CVCA, and PLUP models to facilitate effective management and benefit sharing
- By working together, DARD and DoNRE can be more effective in promoting climate change adaptation and disaster risk reduction

# Recommendations (cont.)

- **NGOs and Mass-organizations**

- Provide technical and facilitation support for communities
- Incorporate local knowledge to increase the effectiveness of adaptation and mitigation practices
- Support and educate constituents on integrated approaches to adaptation: poverty alleviation, livelihood development are critical to secure the community support
- Ensure accountability and community participation in management institutions
- Local communities need financial and non-financial incentives for forest protection (i.e.: forest inventory)

Thank you very much for your attention!

