# Impacts of climate change on aquaculture and fisheries



## Vietnam CC Policy

- National communications to UNFCC (2003/2010)
- National Target Programme to Respond to CC (2009-2015)/(2012-2015) Pilot provinces: Quang Nam and Ben Tre with priority interventions
- National Action Plan on CC 2012-2020
- MONRE Climate Change, Sea Level Rise Scenarios (2009/2012)
- MONRE National Climate Change Strategy with priority (2011-2015) and plans (2016-2025)
- MARD Action Plan CC agric. dev. 2011-15 & vision to 2050

## Global research & projects focus

- Diagnosing F/A dependent communities' vulnerability to climate change
- Understanding & documenting current F/A communities' coping mechanisms and adaptive responses
- Identifying and testing effective measures to improving adaptability and enabling mitigation
- Building the capacity to respond, adapt and increase resilience



# Major CC Initiatives in the MD

Agency - Institute - Donor	Central	Local
CBCC project (MONRE, MARD, UNDP)	✓	✓
DANIDA CC Programme to support NTP-RCC	✓	✓
GIZ Integrated Coastal and Mangrove Forest Protection for the Adaptation to Climate Change (ICMP) Climate Change and Coastal Ecosystem Program (CCCEP)	<b>✓</b>	✓
CARE Integrated Community-based Adaptation in the Mekong (ICAM		✓
AquaClimate project (NACA & Can Tho University)		✓
Research Institute of Aquaculture (1; 2); MARD; MONRE; ISPONRE; VASI;	✓	✓
NGOs and Int'l research (IUCN, WWF, CARE, OXFAM, MCD, SNV, ACIAR, etc.)		<b>√</b>
NORAD; FAO; DANIDA; UNDP; JICA; World Bank; ADB; CIDA; GEF; DfID, AusAID, several governments, etc.	✓	✓

# Major CC Initiatives in the MD

Province	Aquaculture	Inland Fisheries	Agriculture	ICMP	Infrastr.	Cap Building
An Giang		✓	✓			
Ben Tre			✓	✓	✓	✓
Bac Lieu			✓	✓		✓
Ca Mau	✓		✓			
Can Tho	✓					
Dong Thap						
Kien Giang			✓	✓		~
Soc Trang	✓		✓	✓	✓	✓
Tra Vinh	✓		✓			✓



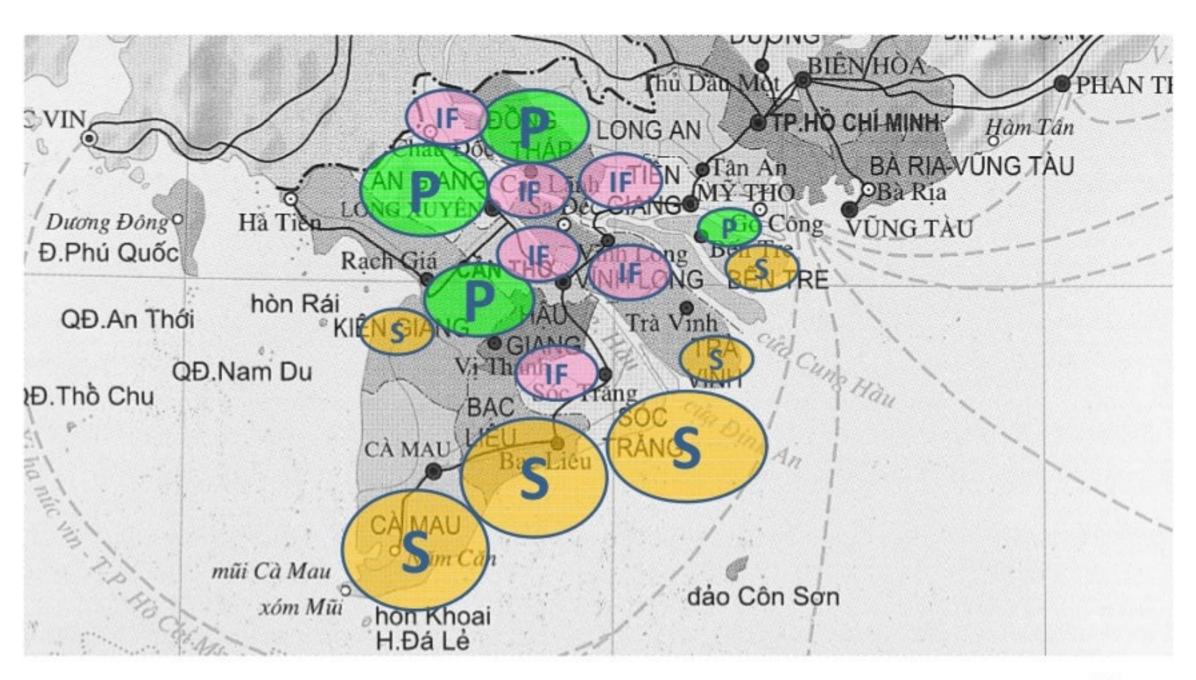


## Developing a Project to Address Climate Change Adaptation Needs in Aquaculture and Inland Fisheries in the Mekong Delta – Vietnam

# Key issues considered in the project development

- Aquaculture and inland fisheries have been underestimated in their contribution to food security and poverty alleviation
- Many initiatives including strategies related to CC but very few fully integrating aquaculture and even less inland fisheries
- Aquaculture and inland fisheries have not been considered in their potential for adaptation for other sectors

## The Mekong Delta (potential areas of focus)



## Project characteristics

## Target species/systems:

- Shrimp and clams systems
- Pangasius et al.
- Inland fisheries

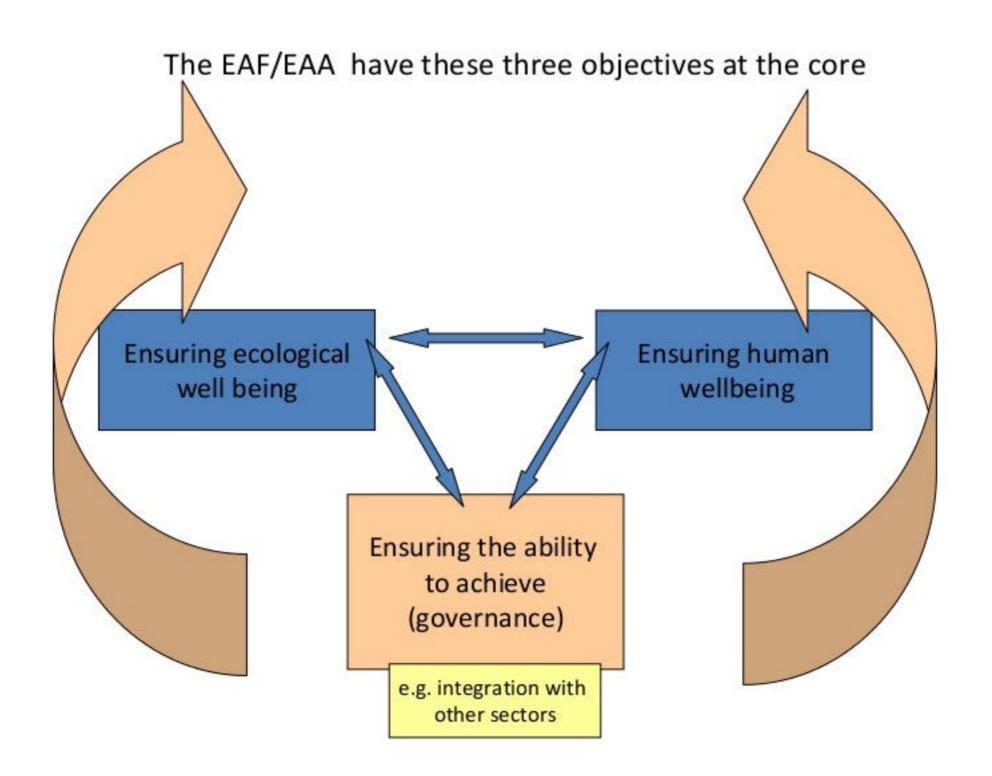
## Project components: 4

Time frame: 5 years

Overall development goal: Poverty alleviation and food security focus including gender and ethnicity

Implementation Strategy: Ecosystem approach to fisheries and aquaculture

## EAF & EAA



## **Vulnerability framework**

### Exposure (E)

The nature and degree to which fisheries production systems are exposed to climate change

#### Sensitivity (S)

Degree to which national economies are dependent on fisheries and therefore sensitive to any change in the sector



### Potential impacts (PI)

All impacts that may occur without taking into account planned adaptation



### Adaptive capacity (AC)

Ability or capacity of a system to modify or change to cope with changes in actual or expected climate stress



Vulnerability V = f(PI, AC)

(adapted from Allison et al., 2005)