
Engaging with Academia and Research Institutions (ARIs) to support Family Farmers and Food System Transformation During and Post COVID-19 Pandemic in Asia
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AGRICULTURAL RESEARCH FOR DEVELOPMENT
GRET
Professionals for Fair Development
With technical assistance from the FAO Regional Office for Asia and the Pacific

Green transformation in agriculture for sustainability of rural livelihoods

Experiences from the coastal areas of Vietnamese Mekong Delta

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Outline

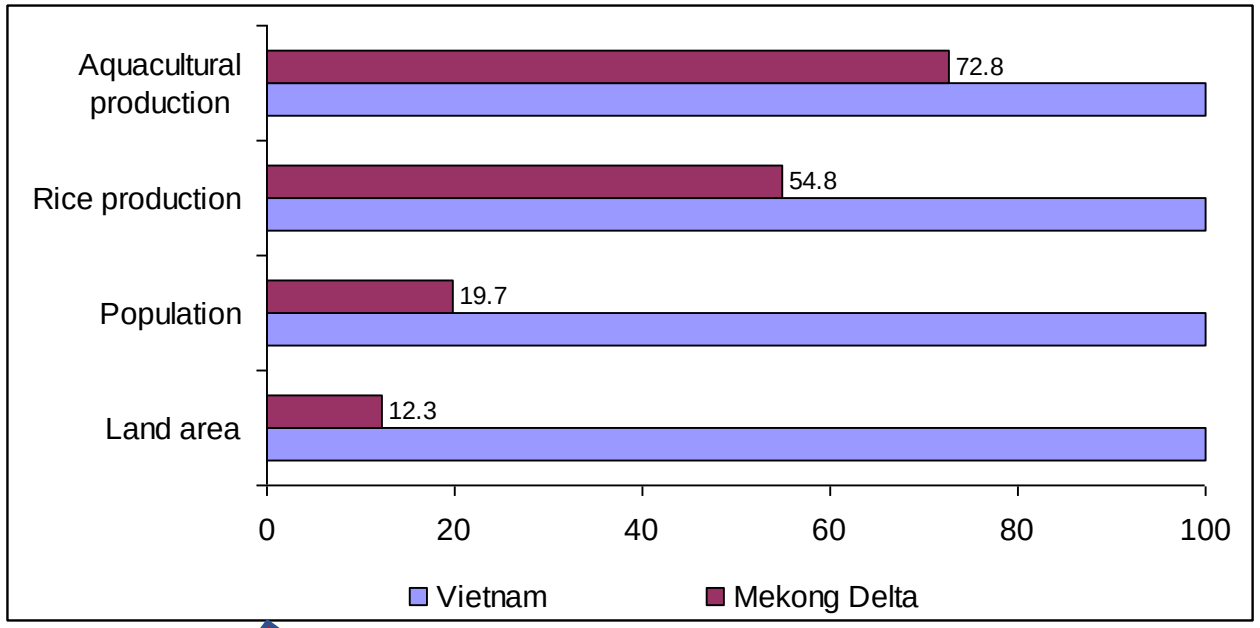
- Introduction
- Focus area
- Context and transformation process
- Agro-ecological system design for a new system
- Key benefits
- Key challenges
- Lessons learned

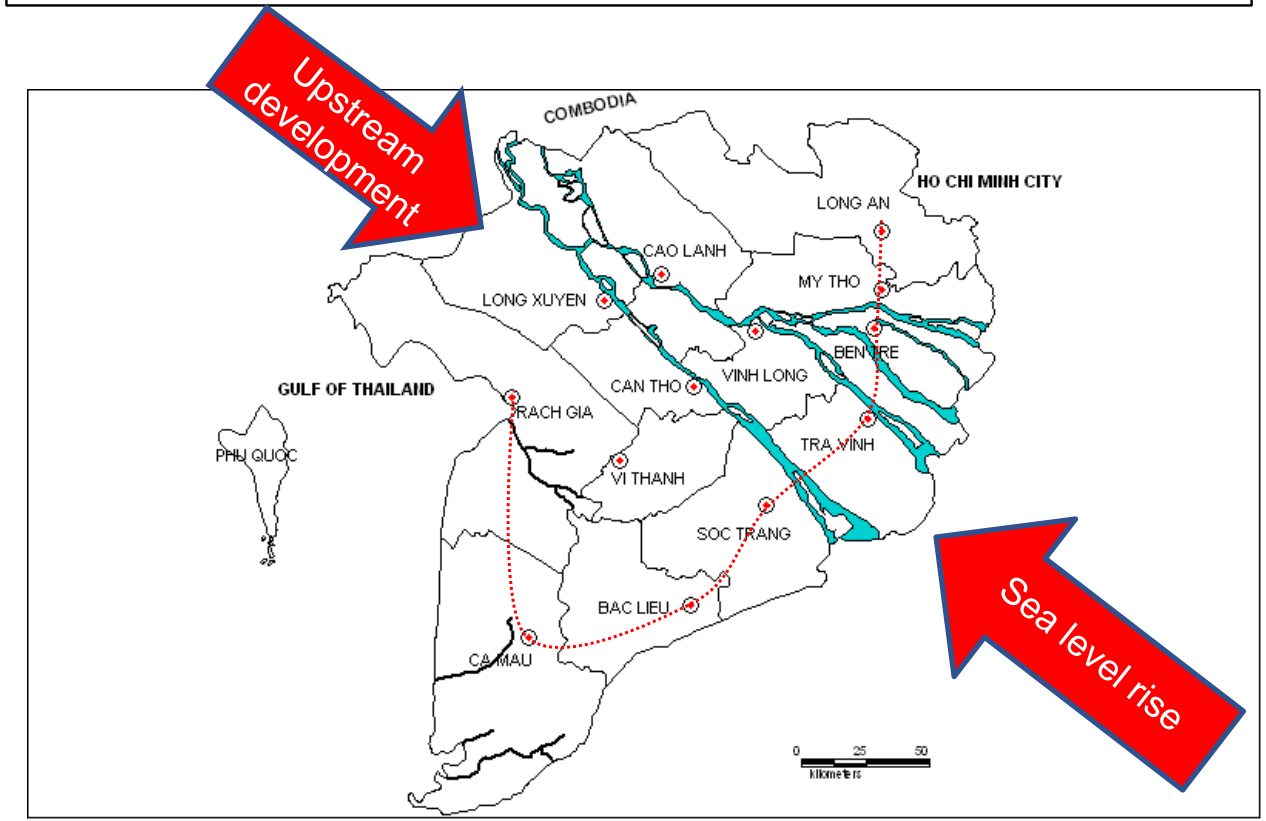
Introduction

- ***Green economy*** ⇔ friendly to the ecosystems and poverty alleviation
- ***Agroecology and circular agriculture*** ⇔ sustainable food and rural livelihood sustainability => green growth
- Research on practical cases for ***green transformation*** in agriculture and rural livelihood sustainability remains underexplored
- We focus on the ***Mekong delta***
  - ⇔ *the most productive* agricultural areas,
  - ⇔ *also the most vulnerable* to climate change and sea level rise

Focus area


CHINA
MYANMAR
VIETNAM
LAOS
THAILAND
CAMBODIA
Mekong delta


Aquacultural production
Rice production
Population
Land area
72.8
54.8
19.7
12.3
0
20
40
60
80
100
Vietnam
Mekong Delta


Upstream development
COMBODIA
HO CHI MINH CITY
LONG AN
CAO LANH
MY THO
LONG XUYEN
BEN TRE
VINH LONG
CAN THO
GULF OF THAILAND
RACH GIA
TRA VINH
PHU QUOC
VI THANH
SOC TRANG
BAC LIEU
CA MAU
Sea level rise

Context and transformation process

Doi Moi policy (Renovation)

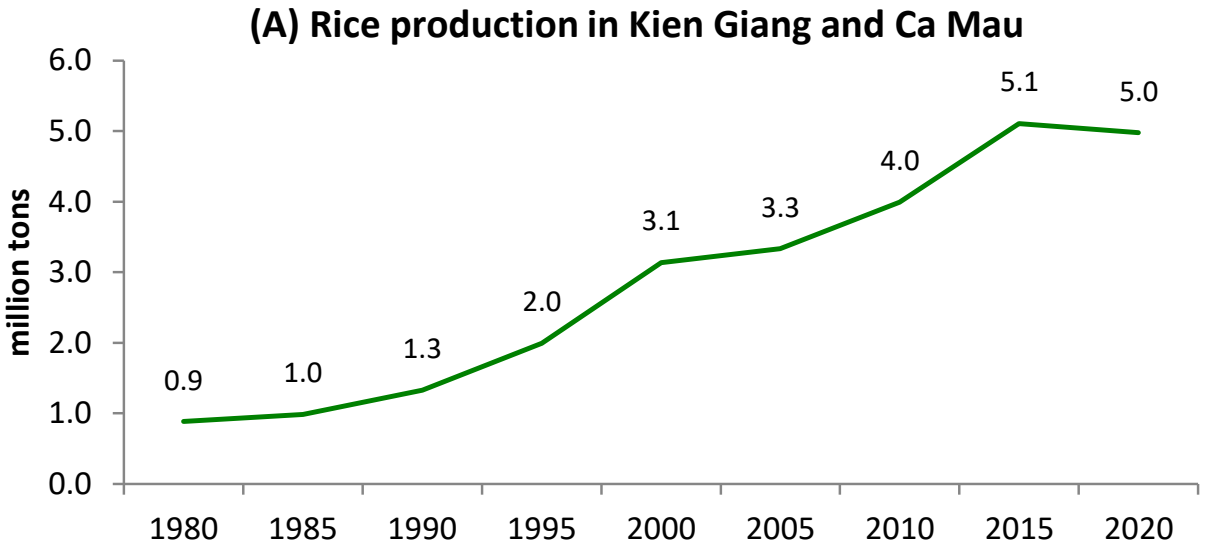
Heavy drought

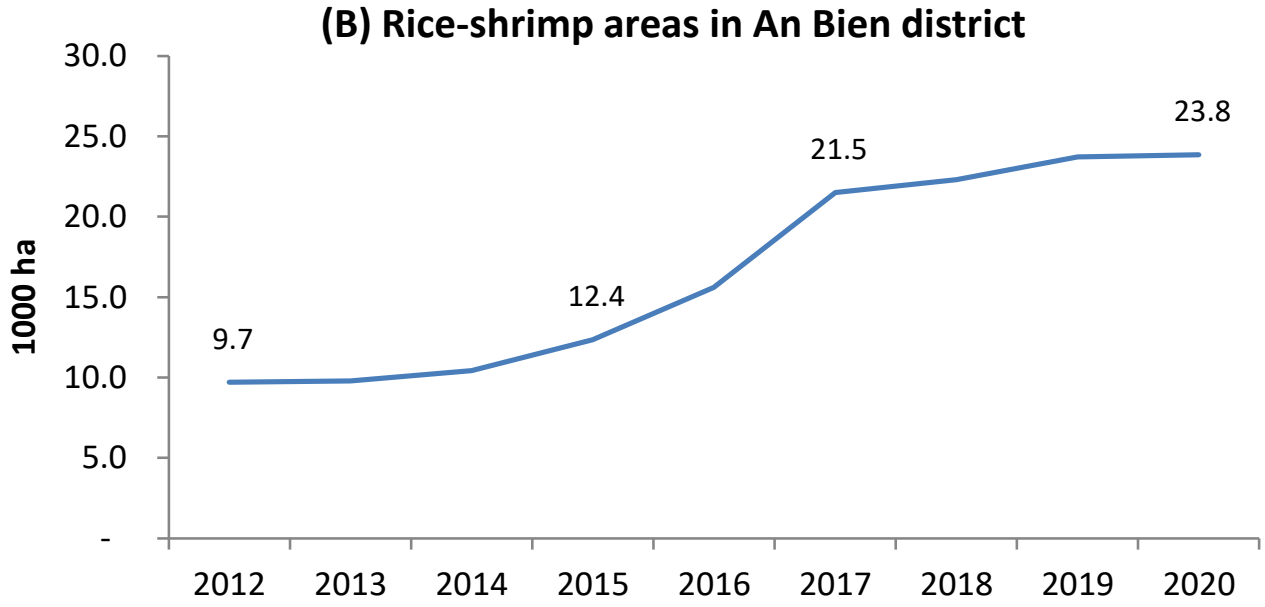
Change in policies toward "living with nature"

1986 1990 2005 2010 2015 2017

Traditional rice (one crop) → High yield variety rice (two – three crops per year) → Rice – shrimp farming system

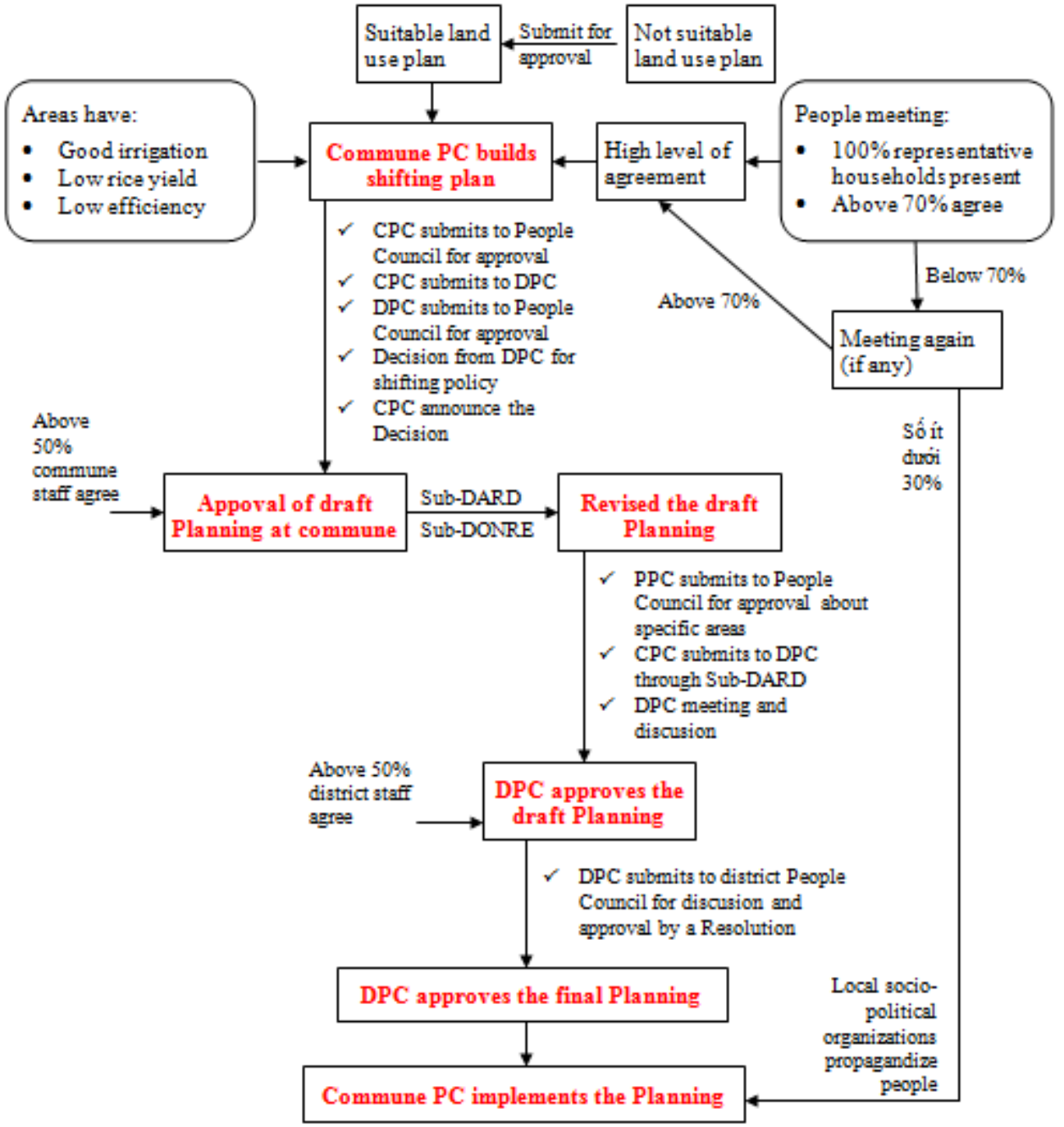
Context and transformation process





Context and transformation process

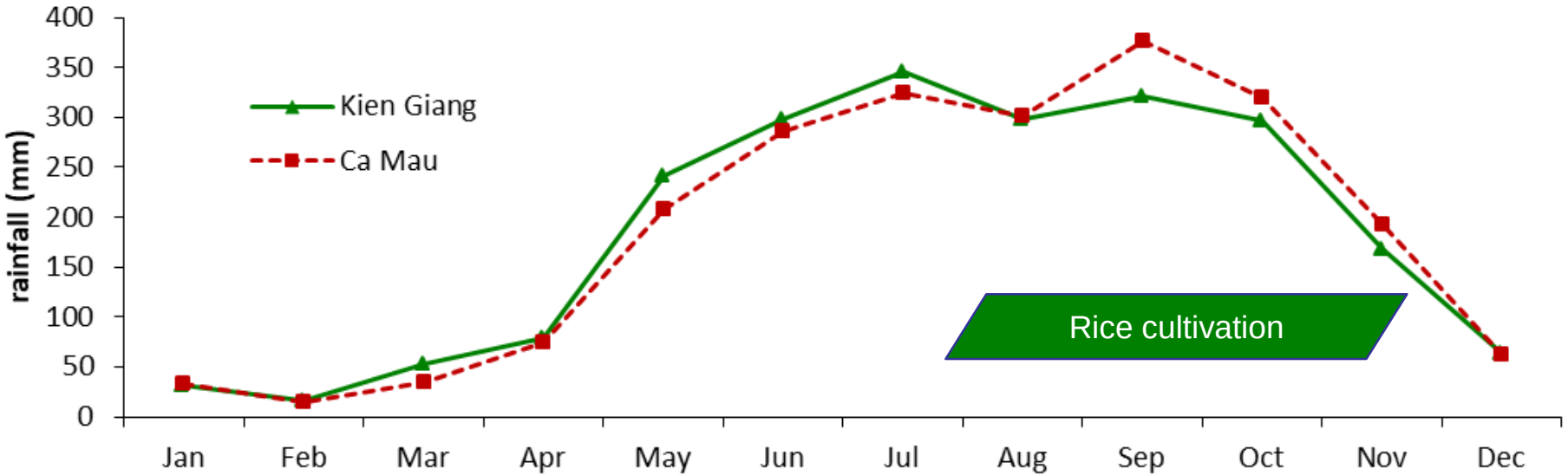
- Stakeholders involved
  - ⇔ Small farmers
  - ⇔ People committee
  - ⇔ Department of Natural Resources and Environment (DONRE)
  - ⇔ Department of Agriculture and Rural Development (DARD)
  - ⇔ Extension agency
  - ⇔ Input suppliers
  - ⇔ Middle man (market)



Agro-ecological system design for a new system

Mono-rice farming system ---------- to ------ integrated rice shrimp model

Agro-ecological system design for a new system



Rice cultivation

Tiger shrimp, white-leg shrimp

Giant prawn, mud crab

Natural fish, shrimp, crab

Key benefits

- Economically ⇔ income, diversification
- Environmentally ⇔ less agro-chemicals
- Ecologically ⇔ biodiversity
- Culturally ⇔ children, rural culture
- Community health ⇔ farmers and consumers

Key challenges

- Unstable weather
- Unstable market prices
- Lack of investment for agri-business (low product prices)
- Old infrastructure/irrigation (for rice, not for new system)
- Limited study on circular and low carbon agriculture

Lessons learned

Sustainability of rural livelihoods should:

- Nature based solutions
- Think global (green economy, organic market) ⇔ act local (circular agriculture)
- Well engagement of stakeholders

Thank you!