Engaging with Academia and Research Institutions (ARIs) to support Family Farmers and Food System Transformation During and Post COVID-19 Pandemic in Asia

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

![Focus area map with Mekong Delta highlighted]

**Map of Southeast Asia showing the Mekong Delta**

**Graph showing statistics for Vietnam and Mekong Delta**

- Aquacultural production: 72.8%
- Rice production: 54.8%
- Population: 19.7%
- Land area: 12.3%

![Graph with comparison of Vietnam and Mekong Delta]

- **Upstream development**
- **Sea level rise**
Context and transformation process

Doi Moi policy (Renovation)


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

Heavy drought

Change in policies toward “living with nature”
Context and transformation process

(A) Rice production in Kien Giang and Ca Mau

(B) Rice-shrimp areas in An Bien district
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

70%
15%
15%
Agro-ecological system design for a new system

Tiger shrimp, white-leg shrimp
Giant prawn, mud crab
Natural fish, shrimp, crab

Rainfall (mm)

Kien Giang
Ca Mau

Rice cultivation

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
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!