
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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MAINSTREAMING AGROECOLOGY IN HIGHER EDUCATION INSTITUTIONS (HEIS) FOR REDESIGNING SUSTAINABLE FOOD SYSTEMS IN ASIA

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Content

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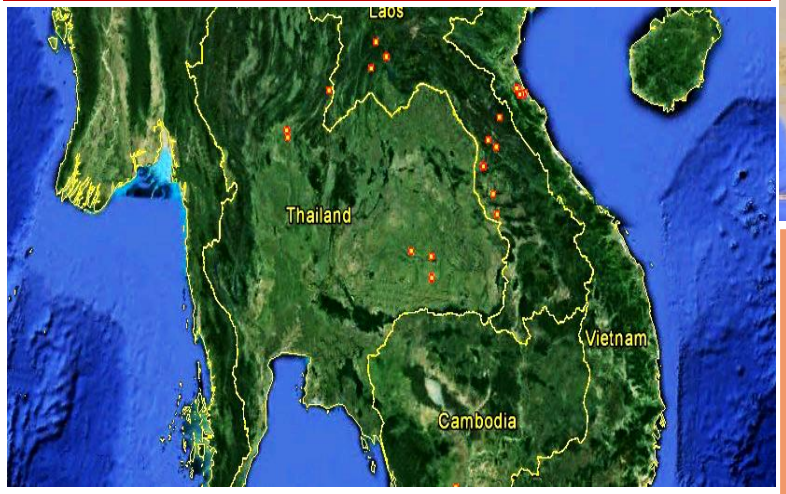
BACKGROUND

- 500 million family farmers produce 80% of the world food
- Majority of them are smallholders (<5 ha)
- 75% food are sold on to markets
- Food-health-trade-climate change interdependent. (fragile linkages)
- Covid-19 and other crises have threatened progress towards achieving the SDGs by 2030
- Redesigning sustainable food systems with active engagement with farms and farming communities is gaining momentum
- HEIs are seen as crucial actors

INTRODUCTION TO PROGRAMME

Sustaining and Enhancing the Momentum for Innovation around the System of Rice Intensification in Lower Mekong River Basin (SRI-LMB)

33 districts in 11 provinces in LMB region



- ✓ Offers low cost solution
- ✓ Doesn't require external inputs
- ✓ Practices are amenable to farmers experimentation
- ✓ Follows agro-ecological principles
- ✓ Strengthen livelihoods

System of Rice Intensification: A 'menu' for innovation and transformation

1. Transplanting younger and fewer seedlings/hill or direct seeding with low seed rate
2. Maintaining wider spacing
3. Avoiding continuous soil saturation
4. Applying compost as much as possible

Capturing farmer's imagination by enabling them to get higher yield with reduced external inputs, fueling their capacity for innovation

GEOGRAPHICAL AREAS AND PARTNERSHIPS

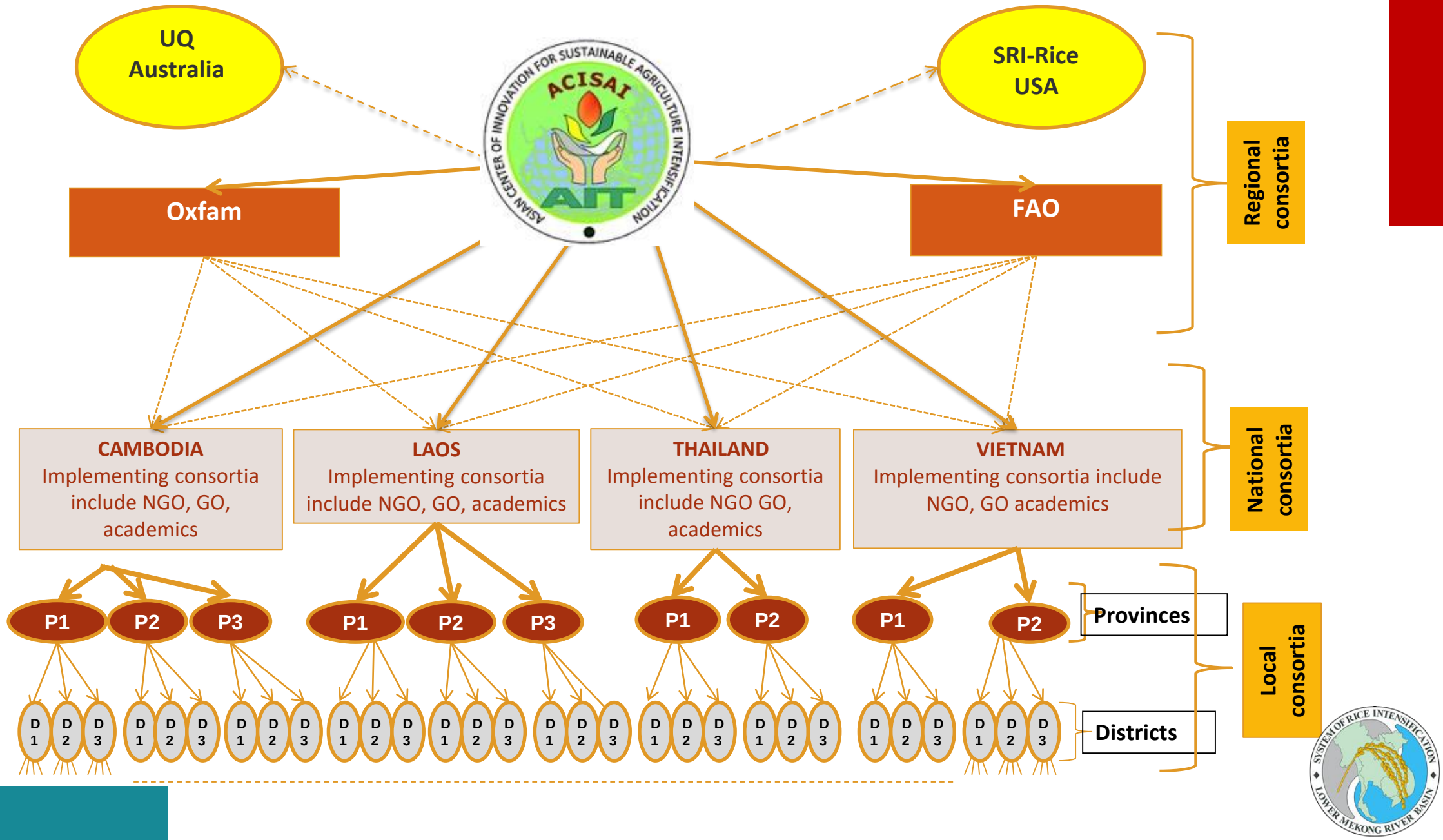
- Royal University of Agriculture
- National University of Laos
- Hanoi University of Agriculture
- Rajabhat University

http://www.sri-lmb.ait.asia/

KEY PROCESSES FOR INNOVATION

- **Multi-stakeholder networks & platforms** (academics, researchers, Farmers Organizations) enabling co-creation of knowledge & participatory research for supporting family farming & food system transformation
- **Enhancing rural communities' initiatives and development**, and transfer of technologies
- **Policies and strategies (from regional to local levels)** to support family farmers & sustainability of rural livelihoods/communities
- **Innovation in HEIs curriculum to** better address agroecology and family farming

1. Multi-stakeholder networks and platforms



2. Enhancing rural communities' initiatives and development, and transfer of technologies

Practices evaluated and adapted

- ✓ SRI-D
- ✓ SRI-T
- ✓ CP
- ✓ Diversification (potato etc.)

22-25 farmers at each FFS site led by farmer's trainer (FT)

FPAR sites

- 1st post FFS site (2 FT)
- 2nd post FFS site (2 FT)
- 3rd post FFS site (2 FT)
- 4th post FFS site (2 FT)

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- ✓ FFS structure
- ✓ Systematic introduction of SRI/FFS approach for the development of knowledge-intensive location-specific technologies

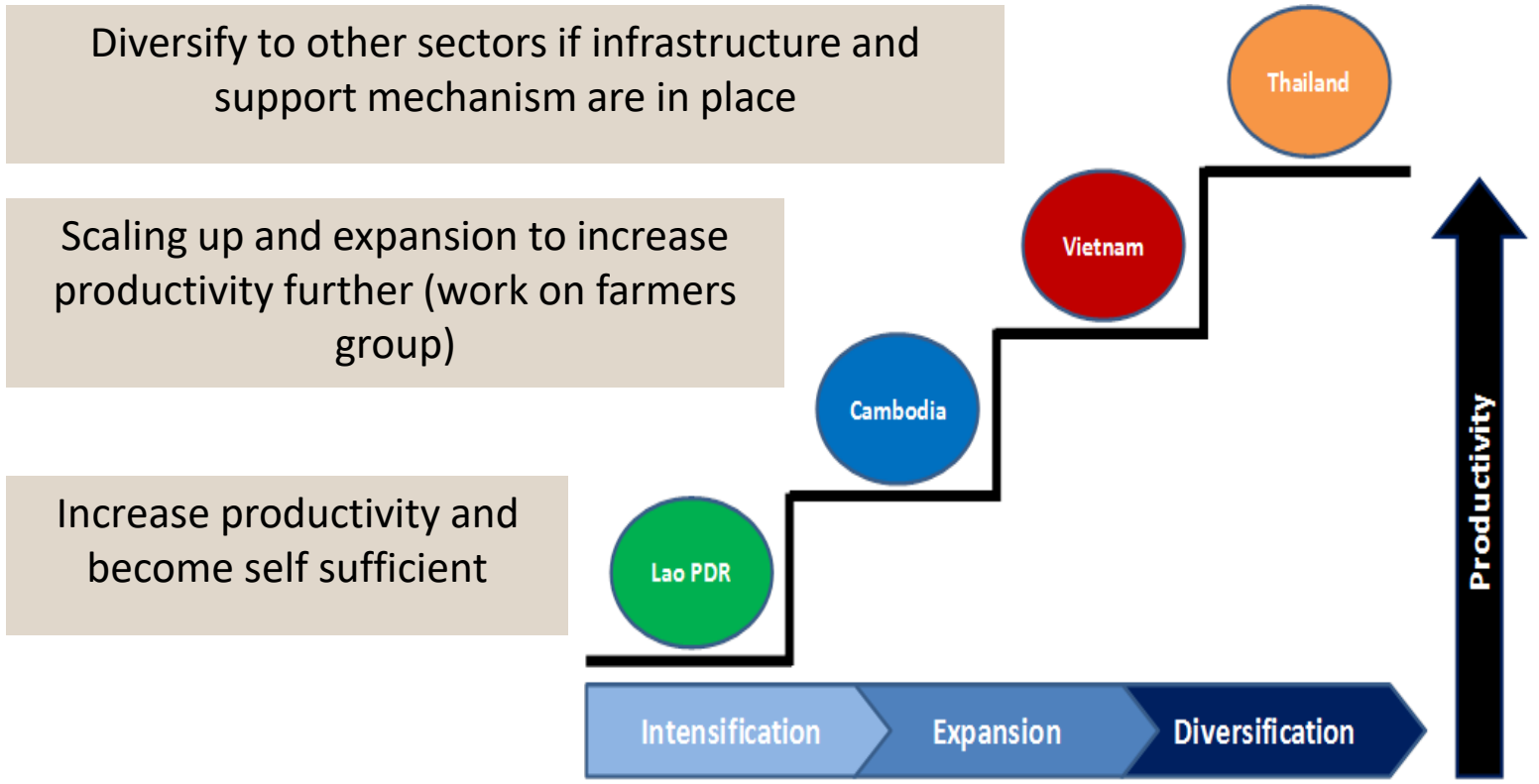
Reached to other farmers in proximate communities (50,000)

3. Policies and strategies (from regional to local levels) to support family farmers & sustainability of rural livelihoods/communities

ASEAN Food Security Policy (2015-2020) recommended SRI and CA integrated agroecological practices to benefit smallholders under climate-smart initiative, however, there has not yet been much visible action taken on the ground

Two key elements:

- ✓ **Location-specific**
- ✓ **Connecting environment**



Macroeconomic situation in all four countries

4. Innovation in HEIs curriculum to better address agroecology and family farming

ENGAGE AND EVOLVE

Interdisciplinary knowledge (cross-departmental collaboration) - Conventional departments receive more resources however there is interest evolving to initiate dedicated programmes in this direction

Following areas could be explored:

1. Joint research project for mapping out and identifying the gaps in the area of agroecology and sustainable food systems (Integrating TAPE in academic curriculum)
2. Establishing regional network of HEIs
3. Involve faculties in global and regional technical and policy consultation
4. Internship and fellowship programmes for masters and PhD students (engage students in FFS)
5. Gather consensus on innovations that have significant impact
6. Develop curriculum that helps to understand the growing demand for healthy and nutritious food
7. Link CSO/communities institutions with universities
8. Galvanize external funding support (*International donor community should align their support to facilitate such transition)*

RESULTS

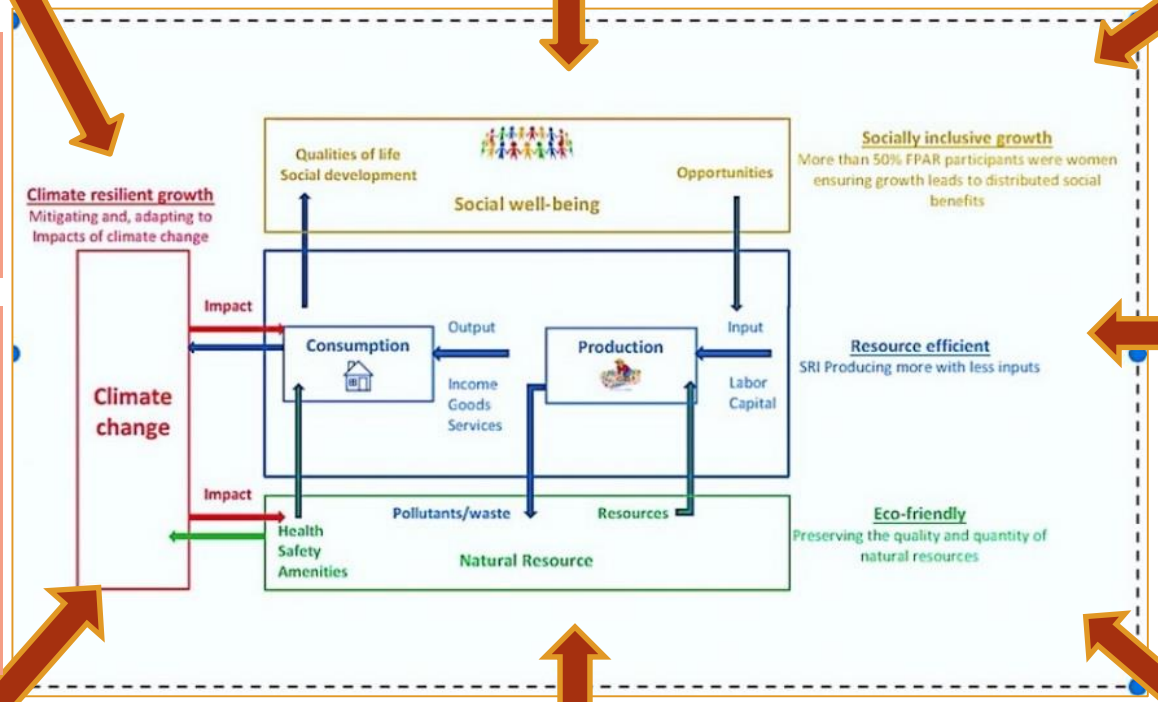
17% less GHG emission

Facilitated development of informal farmers group involving 15,000 farmers

15,000 farmers, 56% FPAR farmers were women

- ✓ 77 ministries staff
- ✓ 16 researchers
- ✓ 30 project staff
- ✓ 10 students
- ✓ 9 faculties

- ✓ 5 training curricula
- ✓ 1 professional master degree course curriculum
- ✓ 4 national and 1 regional policy papers



- ✓ 74% less seed
- ✓ 40% less fertilizer
- ✓ 34% less energy

- ✓ Crops more resilient to drought and flood
- ✓ Less disease and pest observed in SRI fields

- ✓ 52% higher yields
- ✓ 70% higher net profit
- ✓ 64% higher labor productivity
- ✓ 59% higher water productivity (kg/m^3 of water)
- ✓ 75% higher fertilizer use efficiency

- ✓ Less leaching loss of fertilizer
- ✓ More activity of soil biota

https://www.tandfonline.com/doi/full/10.1080/14735903.2020.1866852

RECOMMENDATIONS

- ✓ Create connecting environment
- ✓ Engage and evolve
- ✓ Location and local-specific
- ✓ Collective action and co-creation
- ✓ Share, learn, reflect, adjust
- ✓ Work-in-progress