CGIAR RESEARCH PROGRAM ON Climate Change, Agriculture and Food Security

CCAFS

Climate-Smart Villages:

Key to a sustainable future in rural communities

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OUTLINE

CSV in Southeast Asia

- Basic features
- Implementation
- Evidence creation
- Scaling mechanisms
- Challenge

Impacts of Climate Change

Climate-Smart Agriculture (CSA)

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CSA is an approach that provides guide actions needed to transform and reorient agricultural systems to effectively support sustainable development and ensure food security in a changing climate (FAO, 2013).

Climate-Smart Village (CSV)

The **Climate-Smart Village** approach aims "to generate evidence at local scales of what CSA options work best, where, why, and how, and use this evidence to draw out lessons for policy makers, agricultural development practitioners, and investors from local to global levels" (Aggarwal et al, 2018).

Climate-Smart Villages in SEA

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Laos
Ekxang CSV.;
Drought prone, rainfed with shallow water table

Laos
Pailom CSV.;
Drought prone rainfed area with deep water table

Cambodia
Rohal Suong CSV.
Seasonally flooded rainfed area

Vietnam (North)
Ma CSV. Cool lowland and with surrounding upland areas

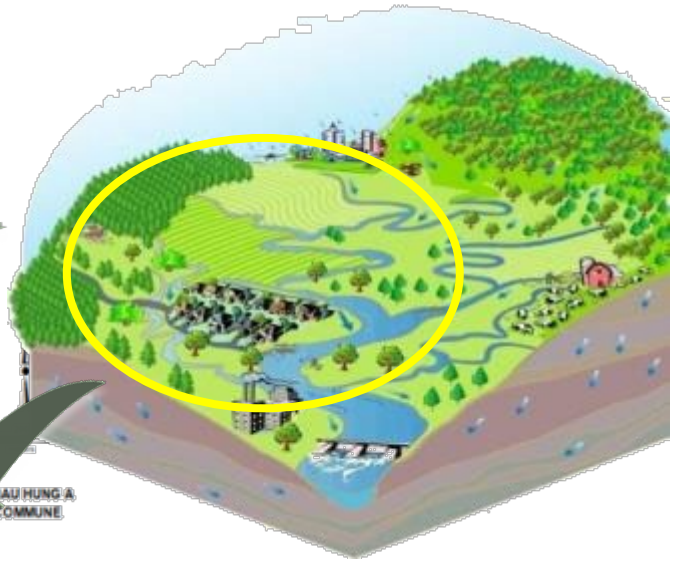
Vietnam (Central)
My Loi CSV. Upland agroforestry area with diversified lowland crops

Vietnam (South)
Tra Hat CSV. Intensive rice area, saline affected

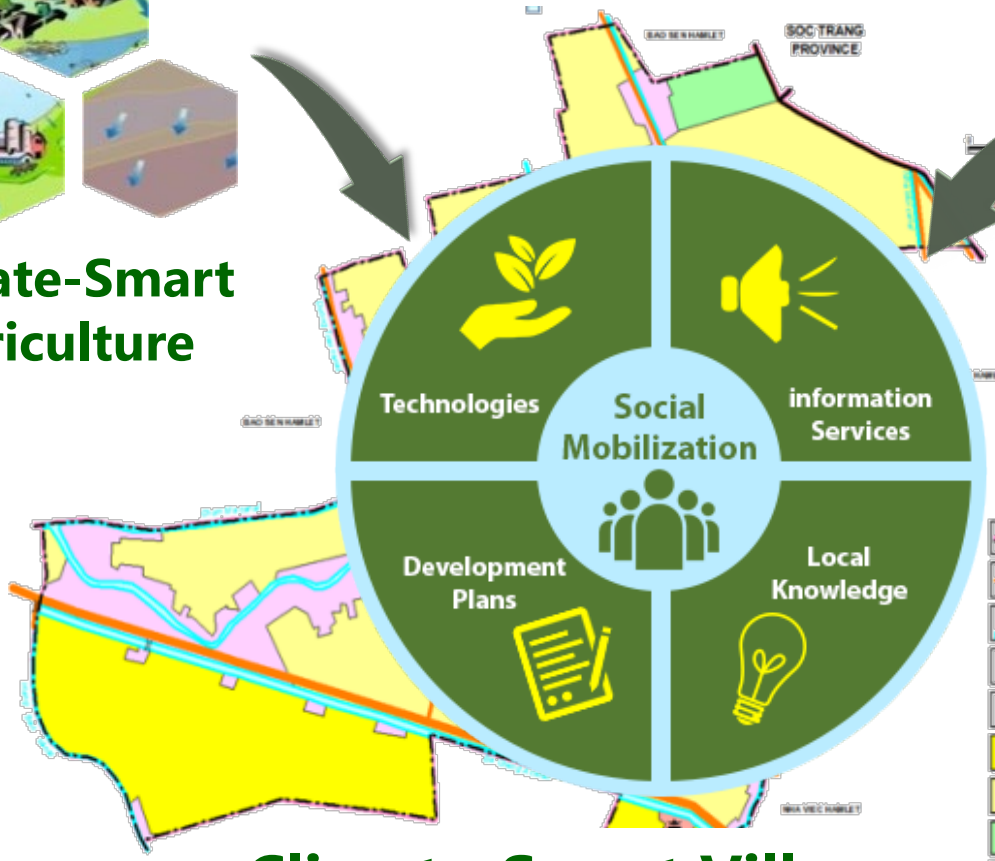
Philippines
Guinayangan CSV
coastal and mountainous areas, highly prone to typhoons and dry spells
.

Climate-smart agriculture to climate-smart landscape

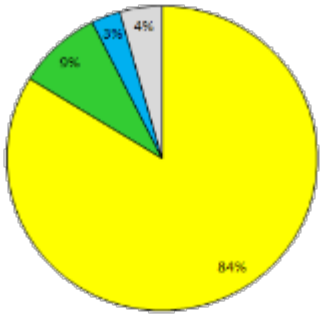
Climate-Smart Agriculture



Climate-Smart Landscape



Climate-Smart Village



Tra Hat CSV (688 ha)

Participatory methods are emphasized in CSVs in SEA

Baseline Assessments

Participatory land use planning

CSV social mobilizations and community engagements

CSA options prioritization

Context Matters!

Examples of climate-smart options in CSVs in SEA

Tra Hat CSV (Vietnam)

- **Market smart /water smart:** convert 3 to 2 rice cropping with high value local varieties (e.g. Tai Nguyen rice)
- **Energy smart and carbon smart:** use crop residue for energy and biochar
- **Weather smart:** adjust cropping calendar to avoid salinity intrusion and flood
- **Nitrogen smart:** fertilizer management
- Diversify agricultural products

Ekxang CSV (Laos)

- **Water smart:** Create water storages for dry season crops
- **Energy and carbon smart:** use rice residue for energy and biochar
- **Nitrogen smart/market smart:** replace chemical nitrogen with organic fertilizers for organic agricultural product
- Fish farming

Rohal Suong CSV (Cambodia)

- **Weather smart:** adjust cropping calendar to adapt with seasonal flood, drought resistant rice varieties
- **Energy smart and carbon smart:** use rice residue for energy and biochar
- **Pest and disease smart** for rice production
- **Water smart:** Application of Alternative Wet and Dry for water saving in dry season

Creating evidence

CSA T&Ps tested and evaluated

- Agroforestry Systems (orange-based agroforestry systems, acacia-based agroforestry systems)
- System of Rice Intensification
- Stress tolerant varieties
- Pest-smart agriculture, ecological engineering
- Intercropping on sloping lands
- Community-based seed system
- Organic vegetable farming
- Vermiculture
- Mushroom production
- Rice straw management
- Small-livestock system
- Alternate Wetting and Drying
- Community Innovation Fund
- Agro-Climate Information System
- Participatory Land Use Planning
- Photovoice

Scaling Up and Scaling Out

Roving workshops: a farmer-to-farmer learning platform for CSV in SEA

Participants:
Village leaders of CSVs, local CCAFS partners

Objectives:

- Enhance the community's understanding of CSA through experiential learning
- Enhance capacities of village leaders in facilitating on-the-ground CSA practices

Outputs:

- Roving workshops : Philippines (2015), Vietnam (2016), Cambodia (2017), and Laos (2018).
- Farmers started applying CSA in their own farm
- Some CSA selected by farmers are being scaled-out autonomously

Target countries of CCAFS in SEA

Integrating CCAFS work in national programs

Integrating CSA in national policies and development plans

8 Guide steps for setting up a Climate-Smart Village (CSV)

1 Purpose and scope of CSV

2 Identify the climate risk in the target area/s

3 Locate a CSV in a small landscape

4 Consult the stakeholders

5 Evaluate CSA options

6 Develop portfolio

7 Scale-up

8 Monitor and evaluate uptake and outcome

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Thank you!

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