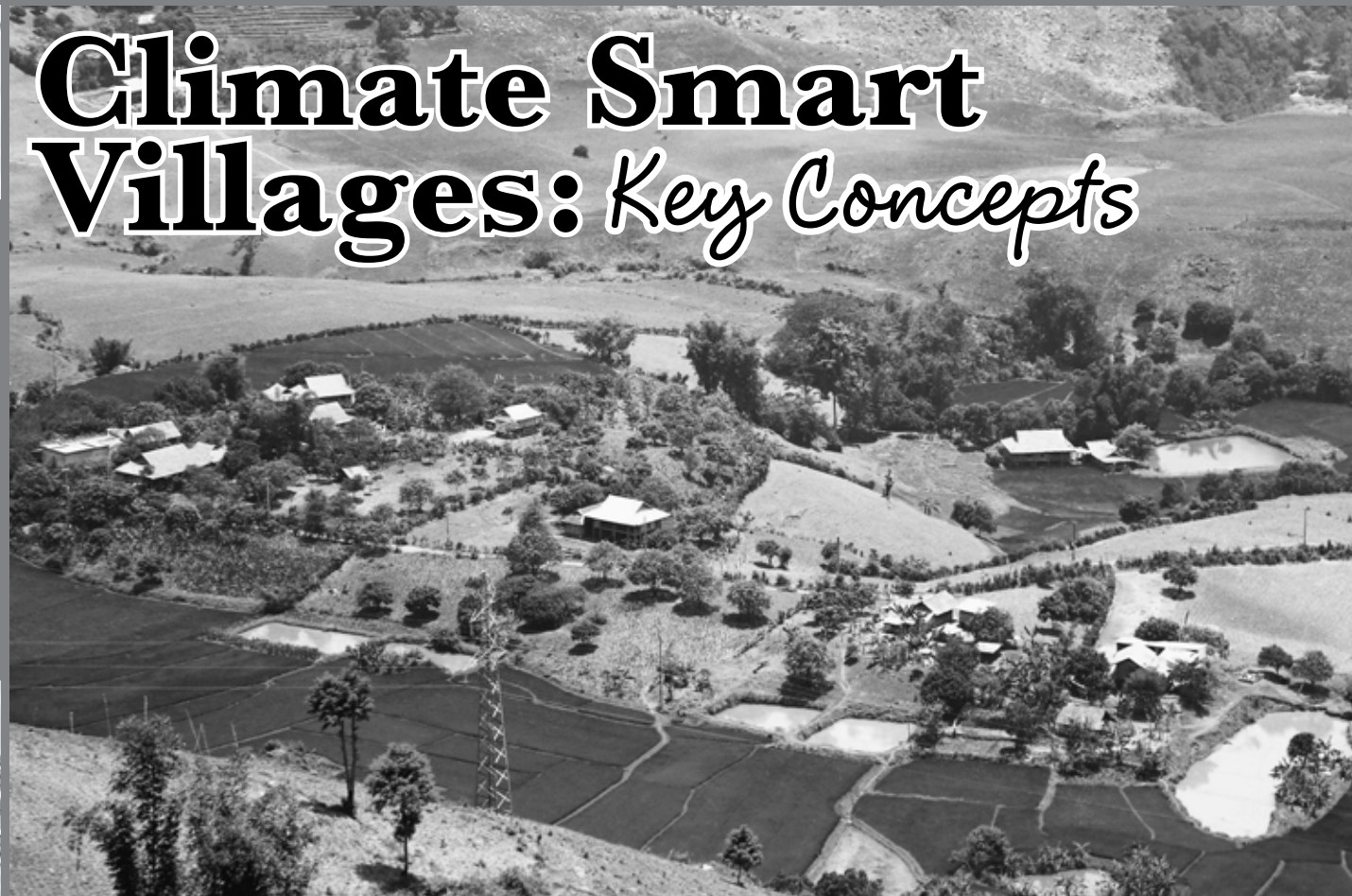


# Climate Smart Villages: *Key Concepts*



A primer for CCAFS partners in Southeast Asia

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), led by the International Center for Tropical Agriculture (CIAT), brings together the world's best researchers in agricultural science, development research, climate science and Earth System science, to identify and address the most important interactions, synergies and tradeoffs between climate change, agriculture and food security. [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org).

This work was implemented by the International Institute of Rural Reconstruction (IIRR) as part of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). The views expressed in this document cannot be taken to reflect the official opinions of CGIAR or Future Earth.

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This primer is a joint effort of CCAFS Southeast Asia Regional Coordination Unit and the IIRR-ICRAF CCAFS FP1.3 project.

### *Cover photo:*

Location: Moc Chau, Sonla Province, Vietnam

September 2015

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**A primer for CCAFS partners in Southeast Asia**

## **Why Climate-Smart Villages (CSVs)?**

**Why are scientists and local communities pivotal in the CSV campaign of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CAAFS)?**

**What are the key elements of a CSV?**



**Individual action is not enough in coping with climate change. CSVs provide venues where different stakeholders collectively participate in the program/project planning and implementation to generate practical adaptation and mitigation options to improve food security, nutrition and climate resilience.**

**Concerted actions in the CSVs operate at the community level and its surrounding landscape.**



- **CSVs are primarily focal points for location-specific research.**
- **Multiple CSV sites represent different agro-ecologies, climate risks, etc. This diversity in context is useful for comparison, extrapolation, climate analogue research, etc.**
- **CSVs help develop solutions to anticipated future impacts of climate change.**



**In the CSVs, rural communities partner with local governments, national programs and international research and development organizations to develop villages as models for local research and development on Climate-Smart Villages.**



**The CSV approach is a collaborative effort designed to test and identify appropriate interventions, innovations and policies which are not only technically appropriate but also gender- and socially- sensitive.**





**The CSVs are “lighthouses” where communities test, develop, and subsequently adopt appropriate CSA practices and technologies on a wider scale.**

**They provide platforms for multi-stakeholder participation and collaborative work in targeted, clearly delineated geographic areas (“territories” or “small landscapes”).**



## Establishing a CSV

**A first step in starting a CSV is to do baseline studies like situation analysis, household studies, vulnerability and risk assessments, etc.**

**After gathering baseline data, conduct CSA prioritization activities to identify existing and potential CSA practices.**



## Examples of Key Interventions in a CSV

Climate-Smart Village/Farm					
Weather Smart	Water Smart	Carbon Smart	Nutrient & Pest Smart	Energy Smart	Knowledge Smart
<ul style="list-style-type: none"> <li>• Seasonal weather forecast</li> <li>• ICT based agro-advisories</li> <li>• Climate analogues</li> </ul>	<ul style="list-style-type: none"> <li>• Aquifer recharge</li> <li>• Rainwater harvesting</li> <li>• Community management of water</li> <li>• On-farm water management</li> </ul>	<ul style="list-style-type: none"> <li>• Agroforestry</li> <li>• Conservation tillage</li> <li>• Land use systems</li> <li>• Livestock management</li> <li>• Alternate wetting and drying</li> </ul>	<ul style="list-style-type: none"> <li>• Site specific nutrient management</li> <li>• Precision fertilizers</li> <li>• Catch cropping/ legumes</li> <li>• Ecological engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Biofuels</li> <li>• Fuel efficient engines</li> <li>• Residue management/ biochar</li> <li>• Minimum tillage</li> </ul>	<ul style="list-style-type: none"> <li>• Farmer to farmer learning</li> <li>• Farmer networks on adaptation technologies</li> <li>• Seed and fodder banks</li> <li>• Market info</li> <li>• Off-farm risk management- kitchen garden</li> </ul>

Source: CCAFS SEA brochure

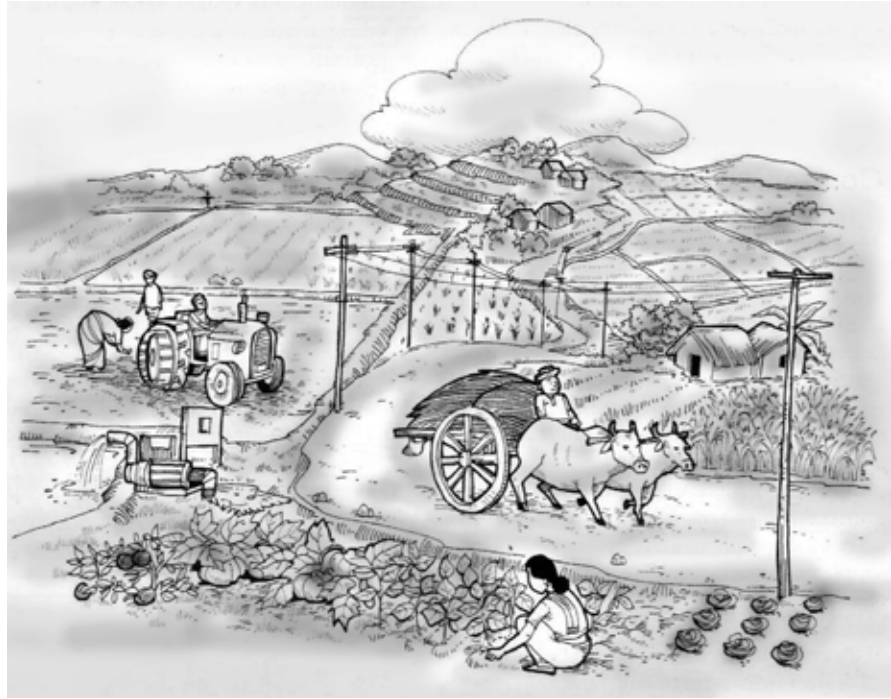
**Researchers and farmers continuously monitor the benefits from CSV action research (using identified indicators such as resilience, farm production, income, equity, adaptation and mitigation, etc.)**



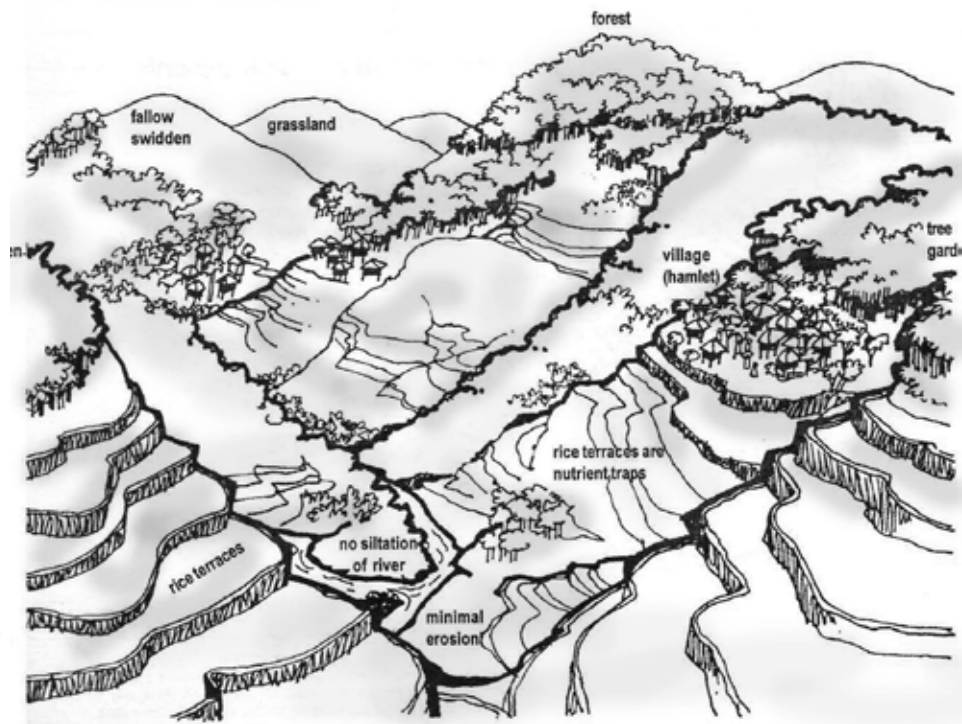
## CSVs within small landscapes?

**Climate, Environment, and Ecosystem elements interact with farms and local communities in a small landscape or micro-watershed setting. These natural resource boundaries are important because of the ecosystem influences on climate adaptation and resilience building objectives of a CSV.**

**Moreover, collective action on a wider scale is usually necessary for successful local adaptation programs (e.g., no burning of rice straw campaign, watershed rehabilitation, etc.).**



**CCAFS approach of using a 10 km x 10 km grid, which covers the target CSV and landscapes immediately around it, provides CSVs with an opportunity to compare and evaluate changes in livelihoods and landscapes/ ecosystems before and after interventions. The CSV boundary can be defined as an administrative unit which includes surrounding natural resources boundaries (that local governments target their resources to).**



**Using participatory land-use planning approaches, communities can be assisted to develop local adaptation plans to address climate-related risks.**



**CSVs provide a platform for researchers, farmers and local stakeholders to engage in community-based participatory research.**

**CSVs promote local adaptation and capacity build-up. This distinction sets CSVs apart from conventional village-based on-farm trials.**

**CSVs also help generate methodological innovations.**

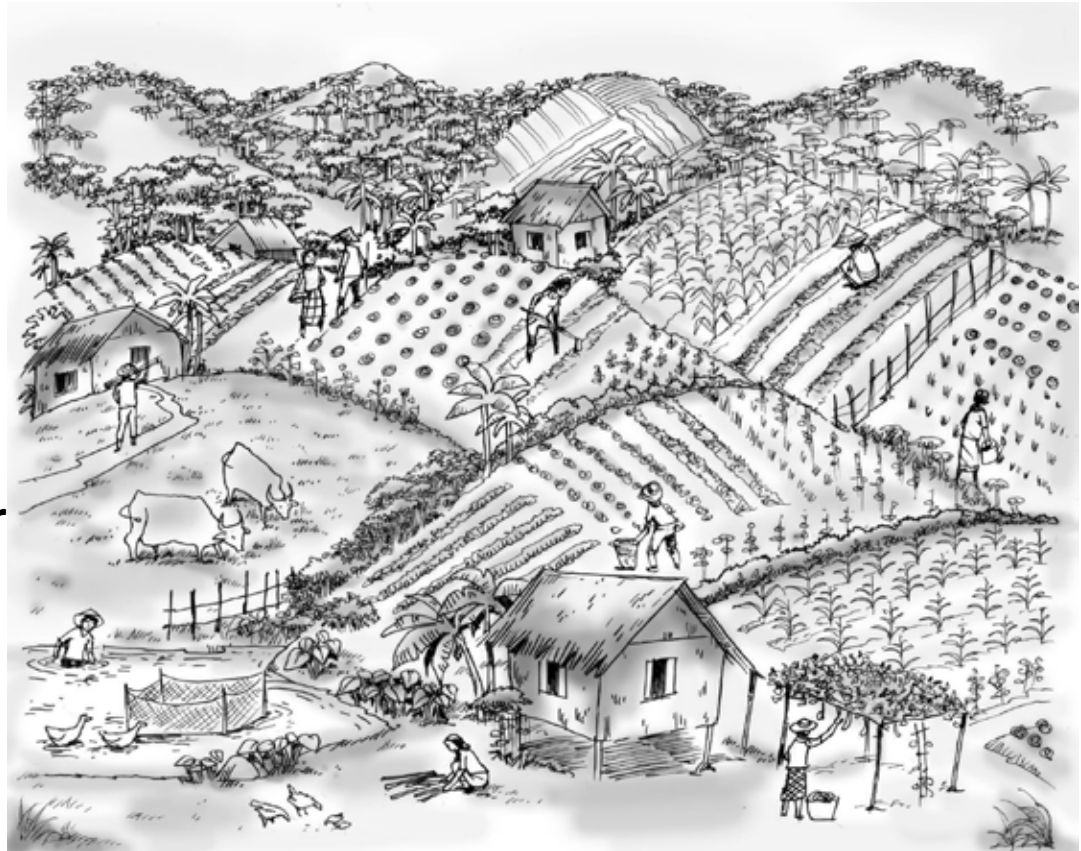




**CSVs are unique in that they provide space for the testing of shortlisted options (derived from on station research, local indigenous and technical knowledge, etc.) eventually leading to prioritization of the best options for particular geographic areas.**



**Though CSVs are focal points for action research (or lighthouses for learning and sharing), they should not remain as islands of innovations. Wider adoption of innovations need to be ensured, “not a showcase but a pattern”.**



**The integrity of the CSV as a unit for action research should not be compromised, otherwise, its emphasis on generating local *evidence* is lost.**

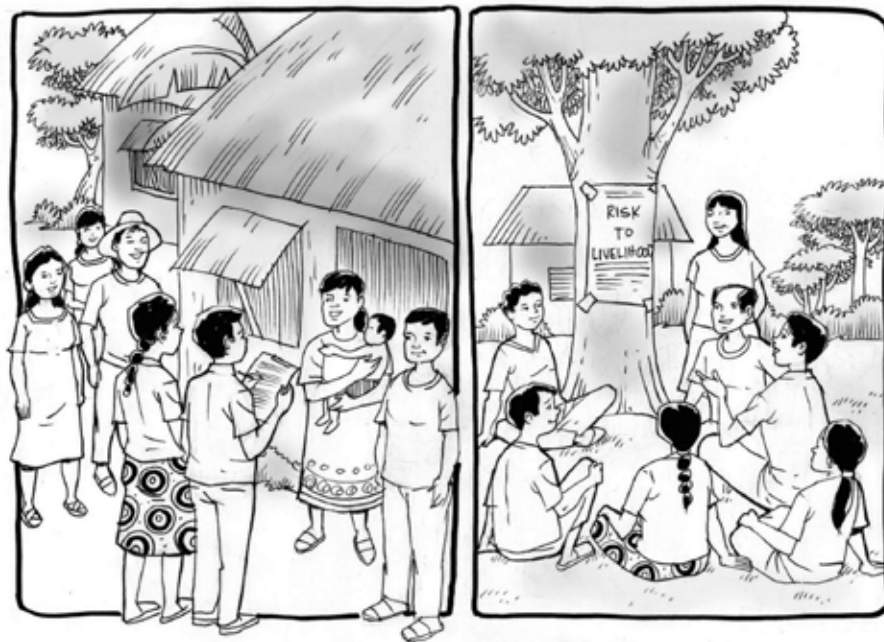
**Let us remember:**

- **Scalability is an important CSV criterion.**
- **Evidence should be generated in a real-life setting.**
- **Solutions are unique to representative areas.**



**CSVs are also being used as conduit for scaling out CSA (without an explicit research agenda).**

**It is important for the CSV proponent to clarify the role and purpose of doing CSVs and specify their intended scope and scale of application.**



**The question of scale must be understood in the context of what is driving the need for a CSV.**



## KEY REMINDER 1

**Adaptation research, which is a basic element of a CSV, helps build and nurture local capacities at different levels. Local communities of practice are encouraged to continue to innovate, experiment, and adapt (incremental or step by step).**

**Communities which have had a successful community- level adaptation management experience are likely to adapt better to future change.**



## KEY REMINDER 2

**In a CSV, ultimately we need to ask ourselves whose needs are being addressed. Achieving outcomes such as reduced poverty, enhanced resilience, improved livelihoods and better nutrition should be the primary considerations (research papers are considered as associated outputs).**

**After all CSVs is not about doing business as usual!**





RESEARCH PROGRAM ON  
**Climate Change,  
Agriculture and  
Food Security**

