



EFICAS
Project

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EUROPEAN UNION

afc
AGRICULTURE
FOR
DEVELOPMENT

Landscape approach to CA and Agroecology

Experience of the EFICAS Project in northern Laos

Eco-Friendly Intensification and Climate resilient Agricultural Systems

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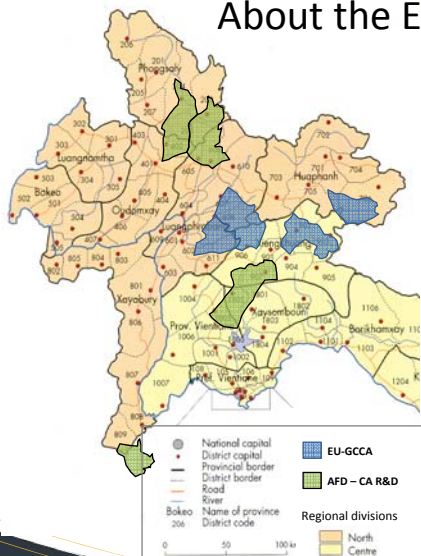
Lao Initiative on Conservation Agriculture, 5-6 May 2016, Vientiane, Laos

Outline

- About the EFICAS project
- The agrarian transition in the uplands of Lao PDR
- Understanding village trajectories
- Designing eco-friendly landscapes
 - Engaging the whole village community in landscape level design and management of agricultural innovations
 - Anticipate organizational problems and negotiate solutions
 - Foster coordination mechanisms and partnerships with multiple stakeholder groups to favor the scaling-up and dissemination of innovative practices



About the EFICAS project (2014 – 2017)



- 2 combined initiatives (EU-GCCA, AFD NUDP-CA R-D component)
- 5 target provinces in northern Laos

Initiatives	Provinces	Districts
AFD	Phongsaly	Mai
		Samphanh
	Sayaboury	Kenthao
		Boten-Paklay
EU-GCCAP	Xieng Khouang	Poukhoud
		Kham
	Luang Prabang	Viengkham
		Phakseng
	Houaphan	Viengxay
		Houamuang

2 intervention villages per district



The agrarian transition in the uplands of Lao PDR

- Changing landscapes – changing livelihoods

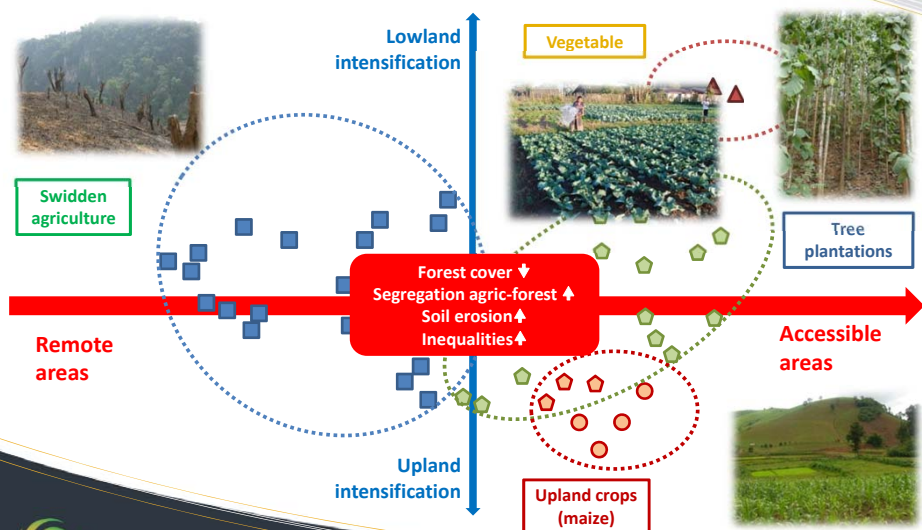


Understanding village trajectories

- Diversity of villages and agricultural systems can be understood as a combination of a limited number of factors:
 - Geomorphology
 - village located on top of hill or along river
 - percentage of lowland / upland
 - Accessibility
 - village accessible whole year or only dry season
 - access to market opportunities and services
 - Population
 - density and dynamics
 - composition (ethnic groups)
 - History
 - social capital
 - governance of natural resources

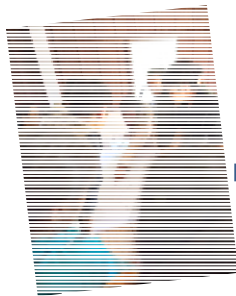


Understanding village trajectories

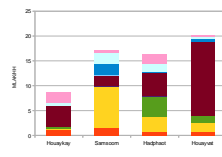


Castella J.C., Lestrelin G., Buchheit P. (2012) The agrarian transition in the northern uplands of Lao PDR: A meta-analysis of changes in landscapes and livelihoods. 3rd International Conference on Conservation Agriculture in Southeast Asia, Hanoi

Understanding village trajectories



+ household surveys
+ focus group discussions



Data analysis



Typology of land use patterns and landscape management styles



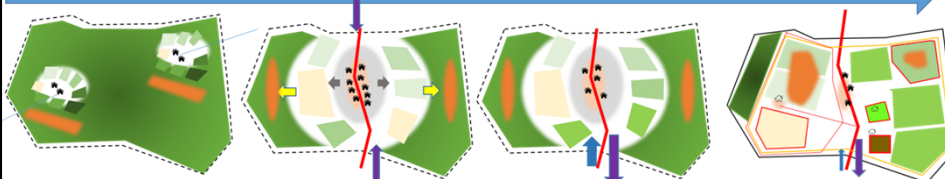
Understanding village trajectories

1974:
creation of
the village

1984:
Village
resettlement
creation of the road

2010-2012:
construction of
the production
road

Time



Samsom



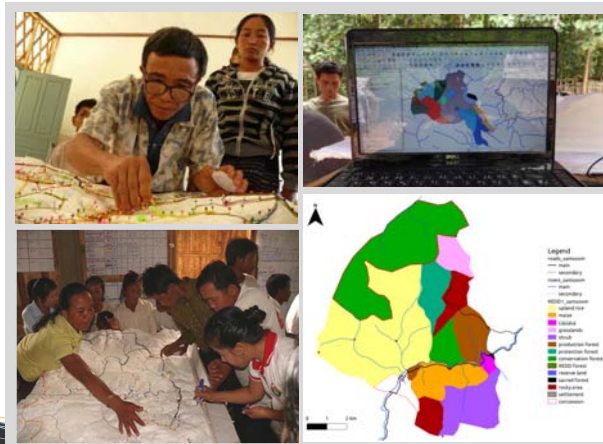
- **Population changes**
 - migration of several households
 - search paddy land elsewhere
 - less children, longer studies
 - **Diversification of agric. activities**
 - cucumber and job's tear in swidden fields
 - interest in gardening but lack water
 - intensification of livestock systems
- > need to change crop-livestock management



Designing eco-friendly landscapes

- Engaging the whole village community in landscape level design and management of agricultural innovations

Participatory Land Use Planning for low carbon emission landscapes

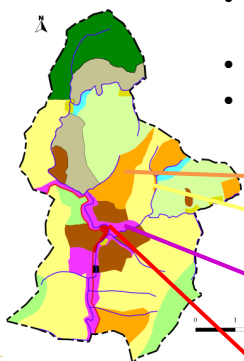


Bourgoin J., Castella J.C., Hett C., Lestrel G., Heinemann A. (2013) Engaging local communities in low emissions land use planning: a case study in Laos. Ecology and Society 18 (2): 9.



Community-based Agricultural Development Planning (CADP)

- Action plan that engages the whole village over several years,
- Negotiated and implemented by the village community and district extension agents together,
- Support of multiple partners/projects for implementation,
- Clear indicators to monitoring implementation and impacts



Land Use	Planned activities
Permanent crop	Want to fence permanent crop area with barbed wires.
Rotational crop	Want to plant new crops to feed animals or improve the soil. Are not interested in improved fallows
Plantation	Wish to plant coffee and castor beans and increase teak plantations.
Improve pasture	Want to create an improved pasture area.
Paddy	Improved irrigation for the existing paddy area; Build new paddy areas up to 9.6 ha.
Garden	Would like to increase and improve home gardening.



CADP planning (4-day process)

- Opening village meeting
- Socio-economic data collection
- Focus group discussions
- Land management and regulations
- Activity planning
- Closing village meeting

CADP implementation (2-3 years)

CADP monitoring and adjustment (continuous)

- Data collection - indicators
- Continuous learning – reflexive loops



Day 1. Data collection

Team 1



Household survey

Village socio-economic data and land tenure analysis

Team 2



Focus group discussions

- Problem census
- Wood, wildlife and NTFP location and relative abundance
- Village population trends

Day 1-2. Data collection

Team 1&2



Data compilation and analysis

Team 1



Participatory mapping
Up-dating 3D model

Team 2

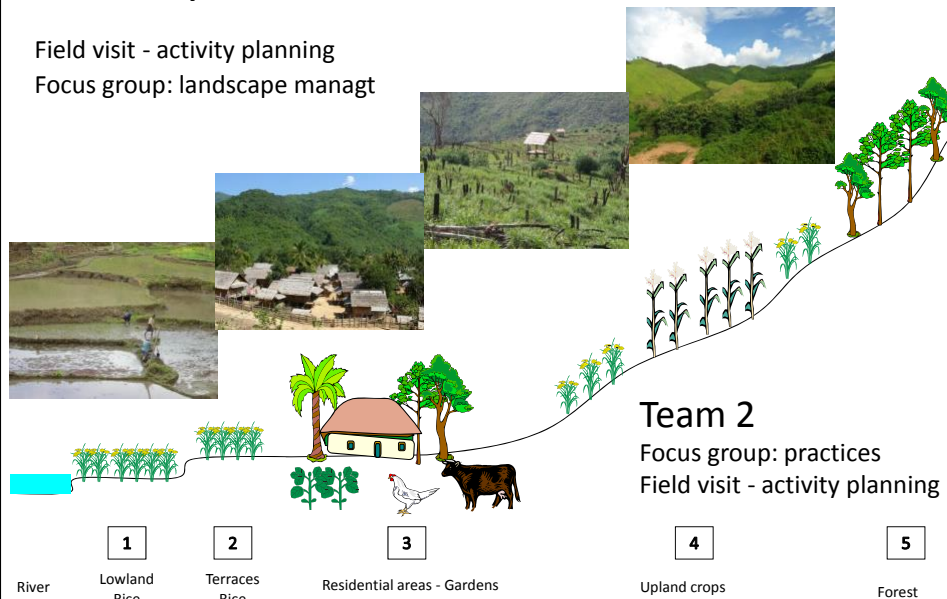


Focus group discussions



- Cropping and livestock systems analysis
- Input – output parameters


Day 3. Data collection and field visit

Field visit - activity planning
Focus group: landscape managt

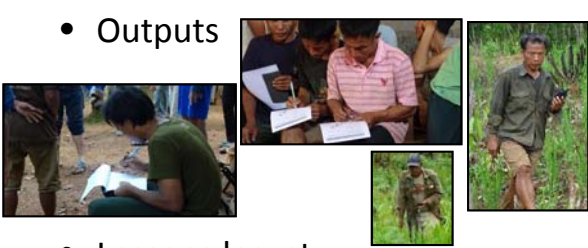




CADP implementation

- On-farm experiments
 
- Training
 



CADP monitoring

- Outputs
 
- Lessons learnt
 



Percent of understanding of participant

Topic	Good	middle	Low	confused
5. GOOD TECHNIQUE FOR RAISING ANIMAL (GOAT, PIG.)	65.4	25.1	11.5	
4. HOW TO MAKE THE FEEDBOX FOR CATTLE	84.6	7.7	7.7	
3. HOW TO MAKE THE FORAGE SILAGE	84.6	7.7	7.7	
2. FORAGE MANAGEMENT TO CATTLE FATTENING OR FEED TO	73.1	26.9	0.0	
1. FORAGE SPECIES AND HOW TO SOWING.	73.1	19.2	7.7	

Legend: Good (blue), middle (red), Low (green), confused (purple)

Designing eco-friendly landscapes

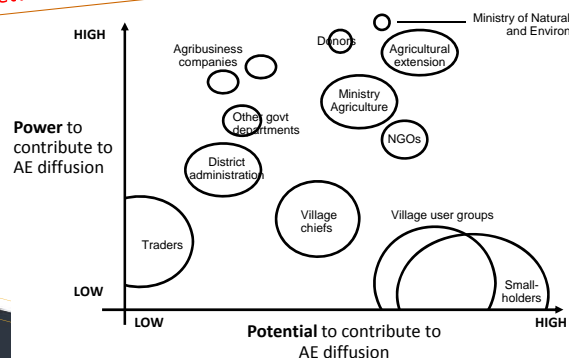
- Anticipate problems and negotiate solutions
 - Free roaming livestock prevent large adoption of agroecological practices (damage of succession crops during the dry season, forage overgrazing, limited manure collection etc.)
 - Productivity gains from conservation agriculture reinvested in expansion of agricultural land (forest encroachment)
 - Mechanized tillage service and use of chemical herbicides constrain the development of alternative cropping systems



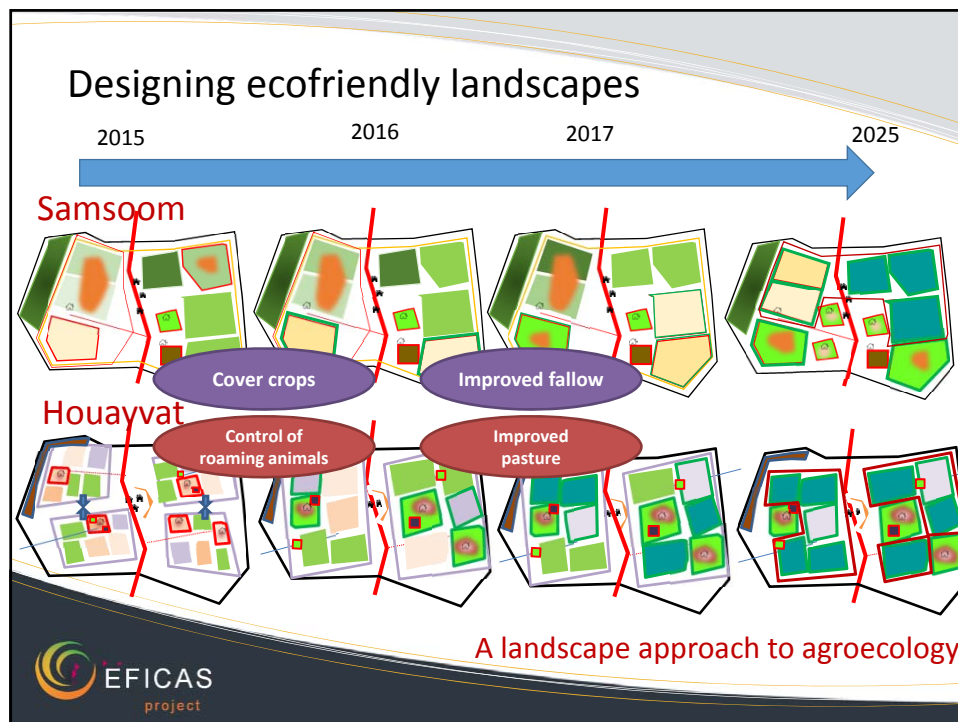
Designing eco-friendly landscapes

- Foster coordination mechanisms and partnerships with multiple stakeholder groups to favor the scaling-up and dissemination of innovative practices

Synergies through
networking



Scale	Partners
Regional	ACIAR- UQ
	ACTAE – CANSEA/ Alisea
National	NUDP
	ADB Livestock
	CDE
	CIAT
Provincial - LPG	SNV
	Agrisud
Provincial - HP	Agroforex
	GRET-SNV
	CIIPAD



Take home messages (1)

- Complexity of agrarian changes in the uplands
-> Need for a landscape approach to agroecology innovation
- Villages are the lower landscape management unit
-> Relevant intervention level for sustainable intensification
- Innovations are not only technical but also largely organizational
-> Need to engage the whole community in the design and management of agricultural innovations

Take home messages (2)

- Many constraints towards agroecological transition are known (e.g. animal uncontrolled roaming, forest encroachment)
-> Problems must be anticipated and solutions negotiated
- The agroecological transition is not the priority for most farmers (e.g. often far behind increased access to health, education, water)
-> Farmers problems and priorities must not remain voiceless



Thank you for your attention...

For more information:

www.eficas-laos.net

