

**DURAS Documentation workshop,
Vietnam 16-19 January, 2008**

Crop/Livestock project

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NB this project group worked together before and also work on other projects together now.

Table 1. **Setting project boundaries**

Title	Area/location	Stakeholders	Starting date and duration	Objectives	Strategy/ approach	Components
Local knowledge for animal husbandry integration in SE Asian Mountains	Mountainous areas of Lao and Vietnam	<p>Lao:</p> <ul style="list-style-type: none"> * NAFRI (report to MAF). * Northern Agricultural Research Centre. * Village committees (3). * Farmers (49). * IRD. * Provincial Agriculture Office. * District agriculture office. <p>Vietnam:</p> <ul style="list-style-type: none"> * National Animal Husbandry Institute, Vietnam (NIAH). * IRD, CIRAD. * Soil Fertility Research Institute (SFI) reports to MARD. * TX people's committee (4) 	<p>2 years but need to continue.</p> <p><i>Impossible to let alone the farmers.</i></p>	<p>(1) Guidebook for farmers per country, guidelines to apply innovative technologies</p> <p>(2) Improve the link (interaction loop) between stakeholders</p> <p>(3) Scientific knowledge improvement on agronomic aspects, adapted forage, erosion processes on sloping lands, fertility management.</p> <p>(4) Social/socio-eco survey on local knowledge.</p> <p>(5) Scientific papers.</p> <p>From farmers (from Mr Bon, extensionist, and Mr</p>	<p>1. With the Farmers:</p> <ul style="list-style-type: none"> -Spontaneous innovative based on interaction with farmers. -Meetings between Farmers, Local ext. and Scientists. -PA (as Experimentation, FFS, Interview (opened), Questionnaire (closed)). <p>NB: before the project, some PRA actions.</p> <p>2. Link with policy-makers :</p> <ul style="list-style-type: none"> -Follow the Land Planning, -Submit the main conclusion 	<p>1. V: Fodder development (trop, temp), L: improved fallow (paper mulberry), integrated cropping system (leguminous crops).</p> <p>2. Soil erosion control and water management processes.</p> <p>3. Fertilizer management.</p> <p>4. Social approach.</p> <p>5. Booklet publication.</p>

Title	Area/location	Stakeholders	Starting date and duration	Objectives	Strategy/ approach	Components
		<ul style="list-style-type: none"> * Farmers union. * Six communes (300 farmers). * Decision makers. * Extension services. 		Bao, farmers' union): -Increase the LU coefficient, means get one more crop season (grass example). -Support cattle development -More training course In Laos (Oloth's perception): -improve fallow management for goats production -Stable upland rice yields. -More training course.	(achievements in relation with the Land Planning) -Interview on their personal point of view 3. Scientific loop: - Meetings (4/year/country) -Quarterly reports -Informal talking (the most important because not too much consuming of time)	

Table 1a. Project context

Context / Problems	Previous activities
Erosion control	Monitoring from 2000
Low crop yield	From the 90's on uplands
Low farmer knowledge on sustainable agricultural development	
Lack of fodder over the year	
Increase number of ruminants	

Table 2. **Description.**

Components	Activities	Main Achievements	Difficulties faced	Unexpected results
C1. Fodder development, improved fallow, integrated cropping system (leguminous crops).	C1. -Experimental plots- on-farm, scaling up. -Training, FFS. -Results and discussion exchange with farmers.	<u>C1a. Exptl plots:</u> -Selection of adapted forage species (temperate and tropical), - Selection of leguminous and non-leg (pigeon pea and paper mulberry), -Farmers' adoption.	C1. -Local climatic and soil conditions -Misunderstanding scientists/farmers -Too short duration. -Conflict Crop/Animal management (first point underlined by Bon&Bao).	<u>Positive:</u> Forage – increase in area covered outside the pilot communes/farmers.
C2. Soil erosion control and water management.	C2. -Experimental plots (1 and 5 m ²) -Chemical and hydrological analysis and monitoring.	<u>C1b. Training:</u> Farmer's knowledge improved. <u>C1c. Discussion&Results:</u> Better understanding of each other.	-Access to farmers difficult due to lack of free time. -Rapid change of land owners.	Number of farmers involved inside commune increased very fast – but difficulties with supply of inputs.
C3. Fertilizer management.	C3. -Demonstration site.	<u>C2a + b. Exptl plot + Chem Analysis:</u> -Hydrological and erosion processes. -Decide on erosion control species. -C and N balance and ecology and fertility management. Papers published.	C2 and C4. -Local conditions (e.g. rainfall pattern, soil quality). -Limited time to interact with agronomist colleagues.	Biogas and vermicompost development.
C4. Social approach	-Training (FFS). -Results, discussion, scaling up.	<u>C3a,b,c. Demonstration site:</u> farmer adoption, scaling up, capacity building, improve farmer knowledge in fertilizer management. Also field visit and student training.	-Access to database and local information. -Limited availability of farmers	Jatropha in Lao as innovation.
C5. Booklet publication.	-Experimental plots. C4. Interview, questionnaire, mapping analysis. C5. -Collect information with the scientists. -Writing process with	<u>C3d. Exptl plot:</u> Increase crop yield. <u>C4a. Interview:</u> Description of	-Access to farmers knowledge. -Project duration too	<u>Negative:</u> Less hectares of forage planted that expected – farmer agreement/engagement or reality different.

Components	Activities	Main Achievements	Difficulties faced	Unexpected results
	farmer colleagues and NARS. -Editing.	<p>driving force.</p> <p><u>C4b. Questionnaire:</u> Description/report on farmers' decision and land use mapping. Changes in income documented.</p> <p><u>C4c. Mapping:</u> GIS analysis of environmental control and markets driving force. Land use map, LUC map.</p> <p><u>Reporting:</u> -Quarterly report, - Scientific papers, - Seminars, - Documentary film (25 minutes).</p> <p><u>Capacity building:</u> - For farmers and involved stakeholders, - Field visit for external visitors, - Students training.</p>	<p>short.</p> <p>-Limited availability of farmers.</p> <p>-Farmers change strategy without letting others know.</p> <p>And :</p> <p>-Equipment stolen, data lost, difficulties for farmers to manage so may foreigners.</p> <p>-Language difficulties.</p> <p>-Duration of project too short to publish and disseminate results inside the project time.</p> <p><i>Also little time to exchange results within different groups and moreover between the 2 countries, implication to make guidebook.</i></p>	<p>Drought.</p> <p>Farmer's decisions and strategy were changing.</p> <p>Experimental plot destroyed, equipment lost (difficulties for scientist because loss of data and farmers embarrassed with the police).</p>

Table 3. Analysis charts

Criteria 1. **Participation**

Indicators	Positive aspects	Negative aspects	Unknown aspects
Number of farmers and area involved (ratio with the initial values)	Motivation. More information. More data.	Time consuming. Fund consuming.	Incoherence between surface planned and reality
Kind and number of stakeholders involved	To measure involvement of policy makers. External support.	Time constraints.	
Frequency of inter stakeholder interaction.	Clarify & Spread issues. Sharing experiences. Better understanding.	Poor understanding if not frequent enough.	
Number/ frequency of meetings, reports, common field visit	Good communication. Data available, enough info for everyone.	Time consuming	
Number of farmers per meetings	If good participation, content of meeting is relevant, adapted to the farmers requirement. Farmers enjoy and feel the subject useful for them.	Farmers were selected, so some might be excluded etc Incentives (lunch or cash) used to get farmers to meeting (in Vietnam). In Lao, govt does not allow this.	
Quality of farmers interaction/ participation	Good achievement. Unknown aspect.	Some farmers might be shy and not join in. Some might find it boring.	Presence of foreigners.

Criteria 2. Knowledge Management

Indicators	Positive aspects	Negative aspects	Unknown aspects
Number of peer review papers published	Credibility for project and work. Share knowledge. Institutional support.	Time consuming	
Number of meetings and field visits with farmers, scientists and policy makers	Sharing information at different levels. Practical info.	Can be too much info, new info, boring or too intensive visits, farmers tired.	
Number of inter country meetings	Sharing info. Facilitate understanding and learning.	Time consuming. Funds consuming.	
Number of integrated reports	As above.	Time consuming.	

Criteria 3. Capacity building

Indicators	Positive aspects	Negative aspects	Unknown aspects
Number of farmers attending trainings	Appropriate technology. Easy to understand trainings. Quality of trainings. Probably better adoption by farmers.	Too much time for farmers to take.	
Number of students and fellowships obtained/involved	Dissemination. Scientific interest. Long term contact –farmers happy to work with foreigners.	Time consuming for scientists to have students etc. Students/foreigners who live in villages may change farmer’s native behaviour.	
Better practices	Farmers adopted. Appropriate technology. Easy to understand trainings. Quality of trainings.	Labour intensive. Complicated. Expensive.	

Criteria 4. Institutionalization.

Indicators	Positive aspects	Negative aspects	Unknown aspects
Integration in other projects	New ideas. More information. More contacts especially in minorities area. Helps to address farmers' problems.	Limited time to work with other projects. Discussion not as deep as we would like.	
Integration in institutional activity	Appropriate methods. Interesting techniques. Similar subject areas. Sharing ideas.	Many institutions participate in one project. Funding often little.	
Spin-offs: -biogas -human health control -bio fuel (jatropha) -private company involvement	Promotes integration of systems eg next step – biogas from animal waste. Better use of waste improves human health etc. Relevant ideas.	Funding.....	Generates new project ideas.

Criteria 5. Economic efficiency.

Indicators	Positive aspects	Negative aspects	Unknown aspects
Number of animals	More grass resources. Other 'nutritive grasses' used now. Increased trade/commercialization.	Not enough land. Grass quality not good. Not enough money to investment.	
Crop yield	Appropriate fertilizer management.	Climatic impact.	
Erosion rate.	Appropriate agricultural techniques.		
Income change.	More animals, good results of project. Better crop yields, better mgt etc. Results adopted/adapted.	If no interest, don't continue, no adoption and not adapted. Money needed to invest.	
CSO involvement/entrepreneurial	Commercialization.	Speculation, market prices not fixed when starting up. Not fair.	

Criteria 6. Replicability.

Indicators	Positive aspects	Negative aspects	Unknown aspects
Number of neighbour communes	Appropriate technology. Easy/simple to transfer.	Lack of interest. Not enough involvement of extension services.	
Other projects	Appropriate technology. Easy/simple to transfer.	Not enough experiences. Not enough communication.	

Criteria 7. Sustainability.

Indicators	Positive aspects	Negative aspects	Unknown aspects
Continuous adoption by Farmers of new technology	Good and appropriate ideas. Appropriate tech in long term. Shows results useful for farmer.	Unknown aspect.	Changes in socio-economic expectations.
Water quality and quantity	Well adapted technology for local environment.	Too many animals. Pollution possible. Poor management.	
Pollution and disease.	Can be used for biogas to a certain level. Alternatives needed and found. New projects.	Not sustainable. Too many animals. Bad management – too much success.	

Recommendations:

Target	Result
Farmers	Economic benefit
Extension services and local leaders	New technology appropriated and guidebook disseminated
Policy makers	In L and V, need key points only, new technology, achievements.
Ministry involved	Well adapted, well adopted. Sustainability.
Research institutions	New technology. New peer-reviewed papers. Better knowledge.
Scientific community	New way of interaction between farmers and NARIs and research institutes.
DURAS coordination	In right direction to achieve objective. Confirm DURAS strategy. Short time to achieve objectives.
Institution for development (eg CGIAR, GFAR...)	New approach is appropriate.

This workshop has helped to make concrete what sort of reports etc we need to prepare for different people. Many ideas were there but now have more or less same ideas about conclusions for each target.

Why? (behind the results)

1. Decided to do this project because we are already involved with farmers and want follow farmer knowledge.
2. Multidisciplinary group, and have confidence in each other.
3. “New way” – is very important for the group - is that try to make link between science, development and economic action altogether – integrated at the same time in parallel. Scaling out not important as they follow farmers’ ideas – objective is not to diffuse but follow farmers.

Key ideas:

1. The teams engaged in CropLivestock project were already involved before the project: good thing !
2. Multidisciplinary groups allow to follow the farmers based on their local knowledge and to link science with development.