

A report prepared for

Asian Development Bank

## Improving Livelihoods of Upland Farmers Using Participatory Approaches to Develop More Efficient Livestock Systems (RETA No. 6067)

Semi-Annual Report – January to June 2004



*An emerging forage-feed system in East Kalimantan, Indonesia: Forages grown in contour hedgerows to improve pepper production by increasing water retention and reducing soil erosion AND providing easily-accessible, high-quality feed for stall-fed cattle -- improving crop productivity, saving labor and protecting the environment*

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*Cover photo: A smallholder farm at a project site in Sepaku, East Kalimantan, Indonesia (photo by Jim Holmes)*

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## Summary

1. The Project held its Annual Review and Planning Meeting in Hanoi, Viet Nam from 16-21 February 2004. During the Meeting, national coordinators and selected site partners presented their results and experiences of the first year of the project, and participants discussed progress of each project output in detail. A large part of the meeting was devoted to extensive discussions on developing strategies and plans for achieving the objectives of each output. The Annual Meeting helped project partners to fully appreciate the changed emphasis of the LLSP from developing and disseminating forage technologies to the much broader approach of maximizing the benefits from livestock production to improve livelihoods of farm households. Presentations from successful sites clearly demonstrated how production system improvements can be achieved by working intensively with farmer groups and local extension workers on livestock feeding problems identified by the farmer groups themselves. By combining intensive, concentrated effort with feedback to communities and engagement of key farmers and representatives from other areas, the generated ideas and results quickly spread to other farmers. This demonstrated how production system improvements (Output 1) and dissemination methods (Output 2) can be combined into a successful technology development AND dissemination strategy.
2. Considerable progress has been made with Output 1 in the first half of 2004. This included decisions to focus on particular livestock production systems at each project site, analysis of production systems, selection of farmer focus groups to work on production system improvements, design of farmer experimentation and farmer field school programs designed to improve the selected livestock production systems.
3. Forage technology development and dissemination methodologies (Output 2) for two sites in Viet Nam were described and reviewed. Adoption and spread of forage technologies was faster in areas with more intensive, market-oriented agriculture than in more extensive areas. In the more intensive areas, farmers considered cattle / livestock production as an income-generating enterprise (rather than as a means of accumulating capital) and farmers were more willing to invest in inputs for livestock production. The relatively close distance between farms and households aided informal contact between farmers ensuring a rapid spread of successful technologies and information from farmer to farmer without major inputs by extension workers. Often, extension workers could advise farmers simply to go and visit experienced farmers in other villages by themselves. This encouraged farmers to seek informal contact and they often bought planting material from the farmers they visited, thus providing an additional incentive for these farmers to share their experiences and give advice. The implications of these experiences for successful dissemination will be discussed and further investigated at other project sites.
4. Building capacity / training of project partners (Output 3) has been fully integrated with review, planning and implementation activities and clearly targeted at needs for information and skills of project partners. These included development of livestock field school curricula, basic skills in conducting participatory diagnosis and working with farmers, livestock production system analysis, forage management and utilization.
5. The second phase of the market study was conducted in Ea Kar district, Daklak, Viet Nam. Results from the problem diagnosis conducted with key stakeholder groups (farmers, traders, government authorities) in December 2003 was reported back to the three groups and each groups brainstormed and discussed possible solutions for overcoming the major constraints and searched for opportunities on how to improve the livestock sector in the district. Opportunities included the need for improved understanding of market requirements

by farmers (such as quality of animals and the need for reliable supplies), the lack of market information, the development of a local livestock market, and provision of credit facilities for improved production and marketing. The meetings were very constructive and all stakeholders were keen to work together to solve these constraints. A stakeholder committee was formed, consisting of representatives from farmers, traders and the local government (including an agricultural bank representative and the extension service) and project site partners, which will be responsible for coordinating activities. The local government has promised its support and willingness to contribute to the development of the livestock sector. This participatory analysis of the livestock production to consumption chain has been highly successful helping the project to better target its interventions and mobilize the major stakeholders in the livestock sector to work together in improving the sector. Similar studies are planned for other Project sites.

6. Overall, very good progress had been made towards achieving project outputs during the first 6 months of 2004.

## Background

7. The Asian Development Bank (ADB) funded project RETA No. 6067 – Improving Livelihoods of Upland Farmers Using Participatory Approaches to Develop More Efficient Livestock Systems, started in January 2003 for a period of three years. The project was given a short name by project participants and will be known as ‘Livelihood and Livestock Systems Project’ (LLSP). The overall goal of the LLSP is to contribute to reducing poverty in upland areas through increasing the welfare of men and women farmers and the resilience of the farming system (ADB<sup>1</sup>, 2002). Participating countries are Cambodia, China, Indonesia, Lao PDR, Philippines, Thailand and Vietnam.

8. This LLSP follows the ADB-financed project RETA No. 5866 – Developing Sustainable Forage Technologies for Resource-Poor Farmers in Asia. The previous project developed forage technologies with smallholder farmers and demonstrated that adoption of forage technologies led to increased livestock production, reduced labor requirements for animal production, and improved soil and water conservation on small crop-livestock farms in the uplands. The LLSP will determine how these outputs contribute to more sustainable livelihoods and how they can be disseminated more widely. The project focuses on reducing poverty through increased and more efficient livestock production. The new project includes Cambodia and has a reduced level of activities in Lao PDR and Thailand.

9. The TA agreement between the Asian Development Bank (ADB) and the Executing Agency CIAT was signed on 7 January 2003. An inception workshop was held at the Chinese Academy of Tropical Agricultural Science (CATAS), Hainan, P.R. China, from 26 to 31 January 2003 to formally commence project implementation.

10. This is the third semi-annual report of the project.

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<sup>1</sup> Asian Development Bank 2002. Proposed Technical Assistance for the Seventh Agriculture and Natural Resources Research at International Agricultural Research Centers. ADB, TAR:Res 36472, Manila, Philippines.

## Purpose and outputs

11. The **purpose** of the project is to:

1. improve the sustainable livelihood of small farmers in the uplands through intensification of crop-livestock systems, using farmer participatory approaches to improve and deliver forage and feed technologies; and
2. improve delivery mechanisms in participating DMCs for the dissemination of these technologies.

The **outputs** of the project will be:

1. integrated feeding systems for livestock, that optimize the use of improved and indigenous fodders and crop residues, and farm labor;
2. improved methods to develop forage feed systems and extend them to new farmers, optimizing the use of M&E for feedback to others in the community;
3. Increased capacity in DMCs, at different levels, to expand the use of improved forage and feed systems and respond to local needs;
4. comparison of development opportunities, and market and logistic constraints, for intensification of smallholder livestock systems across sites in five countries;
5. improved regional interaction and linkages with national and donor funded development projects that ensure synergistic and multiplier effects.

12. The executing agency of the LLSP is the Centro Internacional de Agricultura Tropical (CIAT), a Future Harvest Center ([www.futureharvest.org](http://www.futureharvest.org)). The DMCs implementing agencies in participating countries are:

Cambodia	National Animal Health and Production Investigation Centre, Department of Animal Health and Production, Phnom Penh.
China	Chinese Academy of Tropical Agricultural Science (CATAS), Danzhou, Hainan.
Indonesia	Livestock Services of East Kalimantan, Samarinda, East Kalimantan, and Directorate General of Livestock Services, Ministry of Agriculture, Jakarta.
Lao PDR	National Agriculture and Forestry Research Institute (NAFRI), Vientiane.
Philippines	Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), Los Baños, Laguna.
Thailand	Department of Livestock Development, Ministry of Agriculture and Cooperatives, Bangkok.
Vietnam	National Institute of Animal Husbandry (NIAH), Ministry of Agriculture and Rural Development(MARD), Hanoi.

## Progress towards Project Objectives

### Project management

13. There were no major issues affecting the progress of the Project during the reporting period. In February 2004, the Project held its Annual Project Meeting in Viet Nam, reviewing progress, discussing project strategy and developing plans for the following year. Immediately prior to the Annual Meeting, CIAT organized a workshop for the SoFT (Selection of Forages for the Tropics) database development project<sup>2</sup> as many of the participants were invited to both meetings. The SoFT database is a web-based information and decision support tool that will assist agricultural extension workers, development workers and applied researchers to select the most appropriate forage species for particular environments and farming systems. Information from the LLSP and the earlier FSP projects will be included in the SoFT database; this is one way of ensuring that results from the project will be widely available well beyond the life of the project. The Annual Meeting was followed by a 2-day project management meeting which discussed the outcome of the Annual Meeting and developed work and action plans for project staff. In June 2004, project staff had another opportunity to meet for a mid-year project management meeting in Daklak, Viet Nam, as project staff were already in Daklak participating in either a dissemination methodology workshop or a livestock marketing study.

14. The Annual Meeting was held in Hanoi from 16-21 February 2004. The meeting was originally scheduled to be held in Tuyen Quang, Viet Nam, to enable field visits to very successful LLSP project sites in this province. Unfortunately, a major outbreak of the Avian Flu in Tuyen Quang days before the scheduled meeting prompted the provincial government of Tuyen Quang to withdraw permission to hold the meeting in Tuyen Quang. As all travel arrangements for participants had been finalized, the project decided to move the venue to Hanoi and our national coordinator, Mr. Le Hoa Binh of the National Institute of Animal Husbandry, managed to obtain government clearance and make alternative arrangements for a venue in Hanoi. The Annual Meeting brought together country coordinators and selected site coordinators from countries involved in the LLSP, representatives from CIAT and related projects, ILRI and project staff. Unfortunately, the avian flu prevented collaborators from Cambodia to attend the meeting and our colleagues from China were only able to attend the last two days. The Meeting started with country coordinators presenting progress during 2003. This was followed by a discussion of project objectives, targets and a detailed analysis of outputs, and sessions on developing work plans for 2004. As discussed in the last semi-annual report (Jul-Dec 2003), excellent progress was achieved at some sites while others took some time to change from the heavy emphasis on dissemination of forages (such as selection of new sites, training of extension workers, arranging cross visits and field days, and providing planting material) to maximizing livestock production with farmers who had already planted significant areas of forages. The Annual Meeting helped country partners to fully appreciate the changed emphasis of the LLSP. Presentations from successful sites clearly demonstrated how production system improvements can be achieved by working intensively with farmer groups and local extension workers on livestock feeding problems identified by the farmer groups themselves. By combining intensive, concentrated effort with feedback to communities and engagement of key farmers and representatives from other areas, the

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<sup>2</sup> The SoFT Project is funded by the Australian Centre for International Agricultural Research (ACIAR) and is managed by CSIRO in partnership with many other organizations including CIAT.



generated ideas and results quickly spread to other farmers. This demonstrated how production system improvements (Output 1) and dissemination methods (Output 2) can be combined into a successful technology development AND dissemination strategy. Proceedings of the Annual Meeting have been produced and are available on request.

15. A project management meeting was held at the CIAT office in Hanoi on 23-24 February 2004, and was attended by P. Phengsavanh, J. Samson, D. Bonilla and W. Stür. Unfortunately, F. Gabunada was unable to attend the meeting as he had to return to the Philippines for personal reasons, but he met later with W. Stür in the Philippines. During the meeting, project staff reviewed the outcome of the Annual Meeting, discussed country workplans and divided tasks arising from the meeting. We also agreed on draft workplans for all staff members and these were further developed over the following weeks. The mid-term management meeting was held in Daklak on 18-20 June 2004 and was attended by F. Gabunada, P. Phengsavanh, J. Samson and W. Stür. John Connell (consultant to the project on participatory extension methodology development) participated on the first day in discussions on Output 2. During the meeting, staff reviewed progress at each site, discussed output strategies and planned activities for the next 6 months.

16. P Phengsavanh and F Gabunada traveled extensively during the first of 2004 to assist country partners with implementation of site activities, training and to provide mentoring to site collaborators (Table 1). Reports of missions, workshops and training courses are attached in Appendix 1.

**Table 1: Travel by project staff Jan – Jun 2004**

Period	Traveler	Countries visited	Purpose	Report on Page
5 - 13 Jan	F Gabunada, J Samson, W Stür, P Phengsavanh and J Connell	Nha Trang, Vietnam	Conduct the first review workshop of forage dissemination methodology in Vietnam and preparatory visit for the Annual Meeting to Tuyen Quang	21
13 - 17 Jan	F Gabunada	Manolo Fortich, Bukidnon, Philippines	Assist with participatory diagnosis of focus group farmers	24
20 Jan – 2 Feb	F Gabunada	E Kalimantan, Indonesia	Training course on developing forage technologies and farmer experimentation	26
5 – 27 Feb	All staff, national coordinators and selected site partners	Hanoi, Viet Nam	SoFT Workshop and LLSP Annual Project Meeting	Proceedings
1 - 17 March	P Phengsavanh	Cambodia	Facilitate field trip for cassava team from CIAT-Asia to LLSP sites. Assist collaborators to develop workplan for 2004 and transform it into action plan. Help local staff to conduct PD in villages.	29
9 – 23 March	F. Gabunada	E Kalimantan, Indonesia	Contribute to a training course for extension workers on “Production system analysis” and country	33

Period	Traveler	Countries visited	Purpose	Report on Page
			coordinators to finalize work and action plans	
18 – 28 March	W Stür	Philippines	Visit LSU to meet with F. Gabunada to discuss project issues and assist Jindra with development of M&E strategy	38
19 - 24 March	P Phengsavanh	Savannakhet, Lao PDR	Discuss the LLSP project strategies and plan site activities	41
1 - 15 April	F Gabunada and P Phengsavanh	Hainan, China	Conduct workshop on LLSP strategy and training on participatory approaches for local staff. Finalize the workplan and transform into action plan	43
21 - 25 Apr	P Phengsavanh	Savannakhet, Lao PDR	Conduct participatory diagnoses with provincial and district staff in two villages in Outhoumphone district, Savannakhet	64
26 Apr – 2 May 13 - 14 May	Werner Stür	Lao PDR and Philippines	Discuss project activities, progress and strategy with project staff and explore increased interaction with other CIAT projects in Asia	67
27 Apr - 2 May	F Gabunada and J Samson	Mindanao, Philippines	Visit sites to review and discuss project activities. Generate ideas and plan site activities with collaborators	68
15 - 23 May	P Phengsavanh	Savannakhet, Lao PDR	Assist provincial team to develop work and action plans for 2004. Meet with farmer focus groups in villages. Collect basic information of goat marketing	78
31 May - 6 Jun	F Gabunada and J Samson	Philippines	Initiate new site activities with the country coordinator. Revise workplan for the Philippines based on the LLSP framework with country coordinator	81
6 - 9 June	P Phengsavanh	Cambodia	Assist collaborators in working with farmer focus groups and help them to plant forages	85
6 - 21 June	F Gabunada, W Stür, J Samson, P Phengsavanh and J Connell	Tuyen Quang and Daklak, Viet Nam	Conduct a follow-up workshop on forage dissemination methodology in Vietnam. Mid-year Project Management Meeting	87
21 Jun - 1 Jul	J Samson and P Phengsavanh	Daklak, Viet Nam	Conduct market study phase 2 in Vietnam; conduct feedback meetings with livestock stakeholders in Ea Kar district and form a stakeholder interest group for further action	90

## Output 1: Integrated feeding systems for livestock that optimize the use of improved and indigenous fodders and crop residues, and farm labor

17. All project sites have made good progress with Output 1. Presentations at the Annual General Meeting in Hanoi by partners at advanced sites of the results of production system improvement activities provided a boost to partner who had difficulties with this output. There are many reasons for the initial difficulty of site partners to moving from developing and disseminating forage technologies to improving livestock production systems. While partners have had great success in developing and disseminating forages, their organizations and bosses want to see successful forage technologies introduced to many other districts in their province, and our local partners are tasked with managing this expansion to new areas. Table 1 illustrates the different stages of development project sites are moving through as the project objective changes from forage technologies to improving livelihoods through improving livestock production overall. New expertise and skills are needed to make this transition, and it is tempting to continue expanding the existing success. However, by June 2004, all sites had made considerable advances in analyzing production systems at project sites, selecting farmer groups and working with them to design farmer experimentation and farmer field school-type training designed to improve the selected livestock production systems. Examples from different sites are described in the following paragraphs.

18. In Cambodia, the main activities of the project are in the early stages of testing and integrating forages on farms. In 2003, introduction and initial testing of forage species was the main activity and, during the last 6 months, this has shifted to farmer evaluation. This is a first step in integration of forages on farms; farmers testing several potential forage varieties in small areas before expanding the most promising varieties and integrating these in different planting patterns (e.g. along fence lines, contour hedgerows, under coconuts, intensive plots near the house) and for different uses (e.g. solving a dry season feed shortage, supplementing feed at night, feeding different animal types) in their own farms. Project partners selected 7 villages for farmer evaluation. The selection process consisted of a preliminary selection of 12 villages based on secondary data, site visits and discussion with key people in these areas. In these 12 villages, the project conducted participatory diagnosis (PD) with farmers interested in livestock production to discuss the production system, the problems and opportunities for interventions and the interest of farmers to solve these problems. Seven villages were selected for continuing to work with farmers on identified issues. The main problems identified during the found from PD were (1) Feed shortage in the rice planting season and dry season, and (2) limited areas available for grazing. Farmers need 3-4 hours a day to find enough feed for their cattle and buffaloes, and were therefore keen to evaluate forages which have the potential to reduce this time commitment considerably. By the end of June 2004, 75 farmers from 8 villages in four districts (Pongea Krek, Prey chor, Cheung Prey and Kampong Siem) in Kampongcham province planted six forage varieties on their farms for testing and integration on their farms. These are: *Andropogon gayanus* "Gamba", *Brachiaria brizantha* "Marandu", *Brachiaria decumbens* "Basilisk", *Brachiaria* hybrid "Mulato", *Panicum maximum* "Simuang" and *Stylosanthes guianensis* 'CIAT 184'.

**Table 2 The Forage Development Ladder**

	No forages	Test forages	Integrate forages in the farm	Get impact from forages : expand forage planting	Increase income from livestock production with the improved use of forages – feed quality, health and management
<b>Objective</b>	Identify potential impact of forages and farmers who are interested to try forages in their farms	Identify adapted forage species e.g. <i>B. brizantha</i> , <i>B. decumbens</i> , <i>B. humidicola</i> , <i>Setaria</i>	Identify forages options e.g. firebreak, contour hedgerow, cut-and-carry, grazing, cover crop	Encourage expansion E.g. save labor, enough feed, control erosion	Develop technologies to improve livestock production system e.g. more income from livestock
<b>Skills Needed</b>	<ul style="list-style-type: none"> <li>○ PR</li> <li>○ Forage Agronomy</li> </ul>	<ul style="list-style-type: none"> <li>○ PR</li> <li>○ Forage agronomy</li> </ul>	<ul style="list-style-type: none"> <li>○ PR</li> <li>○ Forage agronomy</li> </ul>	<ul style="list-style-type: none"> <li>○ PR</li> <li>○ Forage agronomy</li> </ul>	<ul style="list-style-type: none"> <li>○ PR</li> <li>○ Forage agronomy</li> <li>○ Animal nutrition</li> <li>○ Animal health</li> <li>○ Animal management</li> </ul>
<b>Results</b>	Researcher and farmers decide and agree to work together on forages	Researcher happy (know what species are adapted to soil and climate)	Researcher & Farmer identified ways to integrate forages in the farm	Farmer happy – save labor, control erosion, can raise more animals Livestock happy – enough feed	FAMILY happy – increased income from livestock production; motorcycle; send children to school; farmers expanding livestock production
<b>Activities</b>	Site visits Secondary data	Characterize production system <ul style="list-style-type: none"> <li>○ farmer visits</li> <li>○ secondary data</li> <li>○ PD</li> </ul>	Evaluate options to integrate forages on-farm with farmers	Encourage expansion of forages on-farm	Develop technology to improve utilization of forages to increase income from livestock Identify problems /opportunities to increase income from livestock

19. In PR China, project partners and farmers in Wentou (Baisha county) and Laogen (Danzhou county) have already tested and integrated promising forage varieties on farms, and are moving towards broader production systems improvements. The main production system of farmers working with the project is rabbit production for meat, for which there is a good market in the area, and they decided to look for ways of improving the traditional feeding system. These tend to be labor-intensive and the decision was made to compare the productivity of the traditional system (sweet potato leaves and natural grasses and herbs) with feeding different grass-legume forages identified previously as growing well in their area and being palatable to rabbits plus a protein supplementation in farmer-managed experiments. Farmers will measure animal performance in terms of liveweight gain and other performance indicators, and compare and communicate results to other farmers in the area. The aim of these experiments is to maximize farmer learning and innovation, and to use the positive experience of solving problems as a stimulus for further improvements. The project

is also trying to link farmer experiments with Output 2 (dissemination of successful technologies) by sharing of results with other farmers in the same and other villages, using the farmers conducting the experiments as 'voluntary extension workers'. The reason for this is that farmer-to-farmer extension has proven to be one of the most successful ways of disseminating information and technologies.

20. In the Philippines, most project sites are at the stage of experiencing impacts of forages (and disseminating forages to new farmers and areas) but had difficulty in moving into the next stage of working with farmers to maximize the benefits – the broader livestock production context (cf. Table 1). In the last 6 months, many local partners have managed to make this transition. For example, a farmer group in Manolo Fortich, Bukidnon, identified high losses in the delivery of feed in stall-fed cattle fattening systems as a major issue. They elected to first improve the design of feeding troughs in their stalls before moving on to solving other issues. New trough design will be evaluated by the farmer focus group and the results will be reported and shared with other interested farmers. It is anticipated that improved designs will increase feed use efficiency by at least 20% with corresponding savings in labor and land for growing forages. Alternatively, farmers will have 20% more feed available for feeding existing or additional cattle. Success in solving this issue will motivate farmers to continue to look for other production system improvements.

21. In Indonesia, production systems analysis has been conducted at all selected sites, priority systems selected and a range of options for improving these systems formulated. These sites are now at a stage of discussing options for improvement and will shortly conduct a range of simple trials to test and evaluate options. Results will be reported in the next semi-annual report. Farmers at these sites raise either goats or cattle. To assist with the generation of options, the site coordinator (Mr. Yacob Pangendongan) linked with new technical collaborators from the Animal Health Division of Dinas Peternakan Kalimantan Timur as well as one of the technical staff the BPTP (Ir. Ludy K. Kristianto).

22. In Lao PDR, project activities are limited to one livestock production system – goat raising - in Savannakhet province. Goat production has a huge growth potential in Lao PDR (and other countries in the region) as there are excellent markets for goat meat, but current production systems are based on extensive, low input, grazing systems with high animal mortality (due to internal parasites), low growth rates, frequent conflicts with crop producers because of damage to crops and potential environmental damage from overgrazing. The objective of the project is to work with farmers to develop more intensive, highly productive and lucrative goat production systems. The key to this is a transition from extensive grazing to part-time or full-time stall feeding to control parasite infection. This will reduce kid (young goat) mortality by up to 50% and correspondingly increase the productivity of goat production. Other expected outcomes are improved liveweight gain resulting in better resistance to parasites and reduced time for growing and fattening goats for sale. The key to enabling this transition is the availability of feed for stall feeding and improved understanding of the effect of parasites on goat production and technical options for limiting parasite infection. In 2004, project activities are focusing on developing feed resources and problem diagnosis with farmers. Participatory diagnosis was conducted with farmers in 11 villages to gauge the interest of farmers and three of these villages were selected as project areas. Twelve farmers in these villages are now evaluating forage varieties on their farms. These are the grasses *Andropogon gayanus* "Gamba"; *Brachiaria* hybrid "Mulato" *Panicum maximum* "Simuang" and the legumes *Stylosanthes guianensis* "CIAT 184" and the tree legume *Gliricidia sepium*. Feeding experiments are planned for the coming wet season.

23. In Tuyen Quang, Viet Nam, heavy emphasis has been placed on dissemination of forages to new villages and districts within Tuyen Quang by the provincial government which has been promoting dairy cattle development in the province. This dairy development has partly driven the high demand for forages in the province and provided significant benefits to many farmers who were able to sell planting material and fresh forage. Following the Annual Meeting in February, production systems improvement activities have been planned for some of the more advanced sites. Three experiments will be carried out by farmers and local partners in the second half of 2004. These are:

- Fattening cattle: Three farmers from Son Deung and Ham Yen districts were selected to conduct experiment on cattle fattening by comparing the growth rate from different protein sources.
- Developing feed budgets for feeding fish throughout the year. Three farmers were selected to use different feed resources for fattening fish throughout the year. The experiment will study different feed resources throughout the year and evaluate their effects on growth rates of fish. These feeds are: *Panicum maximum*, *Paspalum atratum* and Ramnea (a local feed which grows well in the winter).
- Seed production: With the help of expertise from Thailand, seed production experiment was planned to conduct with three farmers in Ham Yen district. The experiment will look at different rate of fertilizer (N), closing date for cutting and methods of harvesting.

24. In Daklak, Viet Nam, production system improvements started in mid-2003 and the first results were reported in the last semi-annual report (Jul-Dec 2003). More experiments to improve particular systems or address feeding issues are planned for the next few months. In the first few months of the year, our partners have worked with farmer groups and extension clubs to analyze production systems (problems and opportunities), identified focus groups interested in working with the project to test new ideas and technologies, designed experiments with the focus groups and prepared needed resources (feed, pen and other) to carry out the planned experiments. These are:

- Matching of feed supply with demand by combining two production systems; cattle fattening and fish production. Fish production is seasonal with low demand for feed early in spring/summer and high demand in autumn. This is out of sink with the production curves of forages which produce most feed in late spring and early summer, and this creates management problems for farmers. By combining cattle fattening with fish production, this over-supply can be utilized.
- Reducing the cost of cattle fattening systems by utilizing planted forages and locally-available crop by-products, particularly during the winter period.
- Improve the efficiency of cow-calf production systems.
- Developing farmer seed production systems of in-demand forages to improve availability of locally-available planting material.
- Evaluation of potential tree fodder species to overcome dry season feed shortages.

## Output 2: Improved methods to develop forage feed systems and extend them to new farmers, optimizing the use of M&E for feedback to others in the community

25. Three small workshops were held in Viet Nam to document and review forage technology development and dissemination in Daklak and Tuyen Quang provinces. The first workshop with key partners from LLSP sites in Daklak and Tuyen Quang was held in Nha Trang from 6-9 January 2004. During the workshop, the basic methodology employed at the two sites was described and discussed. This first workshop was followed with site visits by John Connell, Francisco Gabunada and Le Hoa Binh and more comprehensive discussions and workshops with a wider range of extension workers in Tuyen Quang from 8-11 June and Daklak from 14-16 June 2004.

26. The results showed that adoption and spread of forage technologies was faster in areas with more intensive, market-oriented agriculture. In these areas, farmers consider cattle / livestock production as an income-generating enterprise (not as a means of accumulating capital) and farmers are more willing to invest in inputs for livestock production. The types of forages adopted in these areas were high-quality, productive varieties requiring external inputs (organic/inorganic fertilizers, management). In both provinces forage and livestock technology has reached a point where the farmers themselves visit the extension workers to ask for technical assistance. Another aspect for the rapid spread of forage technologies in intensive areas was the relatively close distance between farms and households. This proximity aided a rapid spread of successful technologies and information from farmer to farmer without major inputs by extension workers. Often, extension workers could advise information or technology seeking farmers simply to go and visit other farmers or a village where a lot of progress has been achieved already by themselves without the extension workers. This encouraged farmers to seek informal contact and they often bought planting material from the farmers they visited thus providing an additional incentive for experienced farmers to share their experiences and advice.

27. The spread of forage technologies was slower in more extensive agricultural systems and areas in both Daklak and Tuyen Quang provinces. Often, farmers in these areas kept livestock in extensive grazing systems, accepting seasonal variation of communal feed availability as inevitable. They tend to adjust to this situation by manipulating cattle numbers or simply accepting the fact that their animals become thin during the dry season when there is little feed available. Moving towards a more intensive type of livestock production with at least some stall-feeding requires a significant change in attitude and production system. Also, farms and houses are located further from each other, thereby slowing the flow of informal and direct exchange of information and technologies between farmers. Extension worker need to invest a lot of time and effort into organizing farmers and providing information and advice.

28. In both provinces, it was observed that there was little opportunity for feedback from farmers to the extension services. What tends to happen is that the knowledge and experience of extension workers and the farmers who first worked with the extension workers were used as basis for generation and promotion of technologies. As forage technologies became successful, a lot of effort went into expanding these technologies to new districts and more farmers. The methods used were a simplified form of participatory diagnosis, selection of interested farmers, organization of cross visits by some key farmers, provision of planting material and some basic training for extension workers and farmers. There was little follow

up after the initial provision of planting material as the same procedure was followed in other districts. The experiences of farmers planting forages and utilizing these for improving animal production was not harnessed nor did these farmers receive a lot of support to assist them with maximizing the benefits from having intensified livestock production. This limited the progress of innovation and improvement of farmers' livestock production.

29. The results of the workshops in Viet Nam are currently being documented and analyzed and will be available in a report later in the year. Based on the experiences with documenting dissemination methodologies in Viet Nam, the Project will conduct similar workshops at selected LLSP in other countries and compare these to the results from Viet Nam.

### Output 3: Increased capacity in DMCs, at different levels, to expand the use of improved forage and feed systems, and respond to local needs

30. As discussed in the previous semi-annual report, training of local partners has been integrated into a review and planning process of progress and future needs at LLSP sites. Most of the training courses conducted (Table 3) by project staff were a combination of review of progress at sites, discussion of problems, planning of future activities and training on knowledge and skills needed by the extension workers to carry out their plans. This type of training has been very successful as it is clearly targeted at the needs of our local partners and the needs of the project.

31. In addition to the training reported in Table 3, project partners have carried out a large number of training events for extension workers and key farmers. These will be reported by country coordinators in the next Annual Meeting.

**Table 3: List of training courses / workshops**

Country	Topics	Period	Trainers / Translators	Participants
Vietnam	Dissemination methodology workshop - part 1	7-9 Jan 2004	J. Connell, P. Phengsavanh, J. Samson, F. Gabunada, W. Stür	8 site collaborators involved in the LLSP in Vietnam
Indonesia	Training course on developing forage technologies with farmers	19-30 Jan 2004	F. Gabunada, M. Tuhulele, Tatang Ibrahim, Ibrahim, Yacob Pangedongan	11 district extension workers involved in the LLSP in East Kalimantan and 1 district extension worker each from South Kalimantan, Central Kalimantan, South Sumatra and West Sumatra
Philippines	Planning and training workshops on development of field school manual for improving livestock production	4-6 Feb and 25-26 Mar 2004	Ed Magboo	6 collaborators from the sites and resource persons from Xavier University (1), provincial veterinary office (1) and regional Department of Agriculture (2)
Cambodia	Training workshop on refreshing skills in participatory diagnosis and basic forage agronomy	10-13 March 2004	P. Phengsavanh, Sorn San	4 provincial and district staffs



Country	Topics	Period	Trainers / Translators	Participants
Indonesia	Hands-on training on production system analysis and planning activities in LLSP sites	15-19 Mar 2004	F. Gabunada, Ibrahim, Yacob Pangedongan	9 district extension workers and 1 farmer leader involved in the LLSP in East Kalimantan
Lao PDR	Participatory diagnosis training course	28-31 March 2004	P. Phengsavanh, V. Phimpachanh-vongsod	32 participants (3 from LLSP). The course was organized by CIAT-PRDU project
China	Planning and training workshop on enhancing skills in farmer participatory research	6-9 April 2004	F. Gabunada, P. Phengsavanh, Yi Kexian, Tang Jun, He Huaxuan	13 extension workers and researchers from CATAS as well as 5 farmers involved in LLSP in Hainan, China
Lao PDR	Planning and training workshop on project strategies and process for improving livestock production systems	15-23 May 2004	P. Phengsavanh, Bounthavone Kounnavongsa	3 provincial and 3 district staffs (Outhouphone district), Savannakhet province
Cambodia	Planning meeting on action plan for implementing project activities in each three months	6-9 Jun 2004	P. Phengsavanh, Sorn San	3 provincial and district staffs
Viet Nam	Dissemination methodology workshop – part 2	9-16 Jun 2004	J. Connell and F. Gabunada (P. Phengsavanh and W. Stür joined in Daklak)	10 collaborators and 20 farmers involved in the LLSP in Tuyen Quang and Daklak

#### Output 4: Comparison of development opportunities, and market and logistic constraints, for intensification of smallholder livestock systems across sites in five countries

32. In June 2004, the second phase of the market study was conducted in Ea Kar district, Daklak, Viet Nam. The LLSP team conducted three separate feedback meetings – one for each stakeholder group (farmers, traders and local government) – to present the results (problem identification) of the first phase of the market study which was conducted in December 2003. During the meetings, the problems/issues identified by each stakeholder group during the first phase of the market study was presented (see previous report for details; also a full report is available on request) and each issue was opened for discussion and brainstorming of options for addressing the identified issues. The meetings were very positive and participation was active and constructive. Farmers were keen to immediately start evaluating production improvement options, traders were offering to train farmers in judging quality and weight of animals, and entering in partnerships with farmers to ensure a steady supply of good-quality animals, and government agreeing to support activities with credit and investigating the possibility of establishing livestock marketing opportunities. Table 4 shows the issues identified in phase 1 and possible solutions and actions identified during the feedback meetings.

**Table 4: Output from feedback meetings with farmers, traders and government**

Problems	Solutions	Opportunities	Actions
<b>Traders' issues:</b>			
<ul style="list-style-type: none"> <li>Farmer always ask for very high price</li> <li>Farmers don't exactly know about the price. Prices are always changing</li> <li>Lack of capital</li> <li>Lack of place where to buy &amp; to sell</li> <li>Low supply of cattle (farmers always want to keep their cattle for reproduction to increase number)</li> <li>Farmers lack knowledge/technology to raise good quality cattle</li> <li>Access to capital Traders can borrow from the local bank, but the loan is not enough for them to buy substantial number of cattle to gain good profit. They also find it difficult to borrow from the bank due to the many processes &amp; requirements.</li> </ul>	<ul style="list-style-type: none"> <li>If farmers have the capital &amp; the capability/knowledge to raise good quality animals, then possibly they can keep the best breeder to produce more calves.</li> <li>Traders think that the authorities should support them by developing good policies / projects where both farmers &amp; traders can buy &amp; sell (trading place) good quality animals</li> <li>The authorities should provide easier access to capital to help the farmers &amp; the traders in buying animals</li> <li>Improve knowledge of farmers on cattle production and management so that traders can buy more improved type of animals and achieve a more steady supply to meet the demand of the market</li> </ul>	<ul style="list-style-type: none"> <li>Demand for cattle is higher than the supply because                             <ul style="list-style-type: none"> <li>lack of capital for both traders &amp; farmers</li> <li>lack of technology to produce quality animals</li> <li>farmers prefer keeping the thin animals for their farm use</li> </ul> </li> <li>Traders are willing enough to discuss possible solutions with the different players.</li> <li>There are some companies &amp; traders who are willing to lend capital to farmers, so that they can benefit together.</li> </ul>	<ul style="list-style-type: none"> <li>Generate information on prices</li> <li>Improve market information through extension officers by training farmers on how to measure the weight of the cattle</li> <li>EW train farmers how to recognize the breed / quality / type of cattle</li> <li>EW bring together farmers &amp; traders to discuss &amp; understand each other about the activities involved in buying/selling of cattle</li> <li>Develop the skills on cattle production (raising) in the village</li> </ul>
<b>Farmers' issues:</b>			
<ul style="list-style-type: none"> <li>Price of cattle for breeding is high, farmers can't afford to buy enough</li> <li>Farmers don't know how to measure the weight of cattle</li> <li>Farmers would like to know the price trends (when is the price at its highest &amp; lowest).</li> <li>Lack of feed for cattle</li> <li>Farmers don't know how to buy good quality cattle</li> <li>Farmers find it difficult to look for good quality cattle for breeding</li> <li>Lack of skills to plan the activities on raising cattle</li> <li>Farmers find it difficult to forecast the price</li> </ul>	<ul style="list-style-type: none"> <li>Establish a market place for cattle</li> <li>Provide studies to bring information on the market (in general)</li> <li>Organize a group of people who are interested to raise cattle</li> <li>Train farmers how to measure the cattle, how to get the weight of the beef</li> <li>Help the farmer to sell the cattle by using a scale as basis of weight</li> </ul>		<ul style="list-style-type: none"> <li>Train the farmer about the technology (e.g. animal health, nutrition, production / breeding, forage technology)</li> <li>Train and guide the farmers to develop plans on how to raise better cattle, suitable quantity of animal, amount of feed needed, types of feed, animal health &amp; animal housing, etc.</li> <li>Train farmers to make plans on how to compute for economic benefits, right timing to raise &amp; sell cattle in order to maximize benefit</li> <li>Formation of farmer</li> </ul>

Problems	Solutions	Opportunities	Actions
			interest groups on cattle production. So they can help each other to exchange information on technology techniques, market and get capital (credit) easily from banks <ul style="list-style-type: none"> <li>• Attend seminar on how to loan money from the bank and how to use the money to get benefits</li> </ul>

33. During the meetings, the idea of forming a stakeholder committee was raised to coordinate and take forward the ideas and proposed actions generated during the meetings. This was accepted and each stakeholder group elected representatives to this stakeholder committee (SC). Membership of the SC comprises 4 farmers, 1 trader, 1 bank representative, 1 extension officer (who will also represent the local government) and a representative of the LLSP. The formation of the SC was supported by the chairman and vice chairman of Ea Kar district; they expect the SC to develop policy recommendations which enhance livestock development in the district.

34. The first Stakeholder Committee meeting was held on 26 June 2004 with representation from the LLSP. The Head of the Extension Office was elected to coordinate activities of the SC. The SC discussed its role, objectives and official status, and decided to apply for registration of the group with the People’s Committee to ensure that the SC is well integrated into the development process of the district. The date of the next meeting was set for 10 July 2004. The formation of the SC is critical to ensure the continuation of activities started during the LLSP, but requiring a longer-term commitment. Also it ensures that the outputs generated are clearly contributing to the development strategy of the local government.

35. The lessons learnt from the Daklak experience will be documented in a comprehensive report and plans are being prepared to conduct similar production to consumption studies at some other LLSP sites.

### Output 5: Improved regional interaction and linkages with national and donor funded development projects that ensure synergistic and multiplier effects

36. Project staff and partners interacted widely with related research and development projects in several countries:

- F. Gabunada assisted the Department of Agriculture Regional Field Unit 8, Philippines, to develop plans for improving the integration and management of forages in the livestock research stations in Leyte and Samar.
- P. Phengsavanh participated in a workshop organized by the National Agriculture and Forestry Research Institute (NAFRI) in Lao PDR and presented a paper on forage technology development from 25-31 January 2004.

- He also attended a planning meeting of the FLSP, a bi-lateral livestock development project funded by AusAID in Lao PDR, to discuss technical issues of forage management and animal nutrition.
- As mentioned earlier in this report, the LLSP organized a workshop for the SoFT (Selection of Forages for the Tropics) database development project from 12-13 February 2004 to ensure that the results of the project (and its predecessors) are included in the database and available in a web-based (and CD) information and decision support tool.
- P. Phengsavanh assisted as trainer with a training course on participatory research for the PRDU project in Southeast Asia from 28-31 March 2004. This provided an opportunity for several LLSP partners to participate in the course free of charge.
- He also assisted Peter Horne, CIAT, with developing and organizing a training course on forage species selection and management for government, donor and NGO-managed development projects with a livestock component in Lao PDR. This training workshop was developed because of extensive interest by development projects in forage and livestock technologies developed by FSP (predecessor of the FSP), the FLSP and the LLSP projects. These workshops are an important networking opportunity and give the LLSP a chance to publicize the activities and results of the project to the development community.

37. The LLSP and the ILRI “Sustainable Parasite Control” Projects are collaborating closely in Cambodia by working together with the same country coordinator and at common sites. The LLSP provides expertise in participatory approaches and feed technologies while ILRI supplies expertise on control and management of parasites and other animal diseases. The objectives are to improve farmers’ livelihood by improving returns from goat production in the project areas. Unfortunately, IFAD-funding for this ILRI project has expired, however, the LLSP will continue to work at these sites and continue to involve ILRI as opportunities arise.

38. Five issues of the project internal, email-based newsletter “LLSP Connections” have been distributed during the reporting period. The aim of this informal newsletter is to keep all project partners informed of what is going on in the project. One issue of the SEAFRAD Newsletter, the vehicle for disseminating and sharing project results with the wider research and development community, was mailed prepared by our Chinese partners at CATAS but had not yet been distributed by the end of June. Editorship of SEAFRAD will be taken over by Mrs. Maimunah Tuhulele, Indonesia, as of September 2004. Mrs. Tuhulele was the national coordinator of the FSP for many years and she retired from the position as Head of the Forage Section in the Directorate General of Livestock Services (DGLS) in 2000. Since then she continued to be involved in the FSP and now the LLSP as consultant for training courses and generally advised our partners in East Kalimantan. She volunteered to take on editorship of SEAFRAD as she ‘has some spare time’ in her retirement and is interested to continue to contribute to livestock and forage development in the region. Editorship will be reviewed at the next Annual Meeting of the project.

## Appendices

### Appendix 1: Reports by project staff

#### **Viet Nam, 5-13 Jan 2004**

Francisco Gabunada Jr., Jindra Samson, Werner Stür,  
Phonepaseuth Phengsavanh and John Connell

#### Objectives

- Conduct a workshop on forage dissemination methodology with site collaborators from Tuyen Quang and Daklak in Nha Trang, Viet Nam (F Gabunada, J Samson, P Phonepaseuth, J Connell, W Stür)
- Visit Hanoi and Tuyen Quang to discuss arrangement for the next Annual Meeting of the LLSP, planned for Tuyen Quang, 16-20 February 2004 (W. Stür and P Phengsavanh)

#### Itinerary

5-6 Jan	Arrival of participants in Nha Trang
6 Jan	Planning of workshop process
7-8 Jan	Dissemination methodology workshop
9 Jan	Discussion of workshop results
10 Jan	Depart Nha Trang for home base (J Connell, F Gabunada, J Samson)
10 Jan	Nha Trang – Hanoi – Tuyen Quang (W Stür, P Phengsavanh, Le Hoa Binh)
11 Jan	Discussions with Mr. Binh and Ms Yen in Tuyen Quang (return Hanoi)
12 Jan	Discussions with Mr. Binh and NIAH in Hanoi
13 Jan	Depart Hanoi

#### People Met

Le Hoa Binh, LLSP Country Coordinator- Vietnam

Vu Hai Yen, Tuyen Quang Province

Vu Thi Huong, Ag. Extension Department, Yen Son District, Tuyen Quang

Truong Thanh Khanh, Tay Nguyen University, Daklak Province

Mr. Ha and staff, Agricultural Extension Department, Ea Kar District, Daklak and staff

#### Summary

##### **Workshop of dissemination methodology**

The FSP, FLSP and LLSP are developing forage and feed technologies with farmers with the aim to improve the income and livelihood of smallholder farmers in the uplands of Southeast Asia. Once the first few farmers started to expand and integrate forages on their farms other farmers in the village and district became interested and also evaluated forages. FSP-2 and the FLSP started to actively promote the dissemination of forage technologies to other farmers in the same village, district and to farmers in new districts and provinces. A lot of

experience with dissemination has been accumulated and needs to be described and analyzed to extract common principles, enabling factors and useful tools and methods.

The objectives of the workshop were:

- 1) Describe the expansion and dissemination of forage technologies from farmer to farmer and site to site in Daklak and Tuyen Quang (e.g. flow diagrams of adoption of forage technologies).
- 2) Analyze the dissemination process in terms of success and failures, lessons learnt, key people involved, enabling or hindering factors such as institutional arrangements, and difficulties with dissemination.
- 3) Discuss the importance of (P)M&E in the dissemination process.
- 4) What can we do to improve the dissemination process in Vietnam?

### Program

Wednesday, 7 January 2004	<ul style="list-style-type: none"> <li>- Presentation of progress of dissemination in Daklak (Mr. Khanh) and Tuyen Quang (Ms. Yen)</li> <li>- Form two working groups (Daklak and Tuyen Quang) and document the process of forage and feed technology development and dissemination in the two provinces</li> </ul>
Thursday, 8 January 2004	<ul style="list-style-type: none"> <li>- Continue working groups</li> <li>- Present results of the two working groups</li> <li>- Discuss and summarise the key factors for successful dissemination in Daklak and Tuyen Quang</li> </ul>

The workshop started with presentations from the sites. After the presentations, the group was divided into two – one subgroup representing one province (Daklak for one group and Tuyen Quang for the other). Each subgroup then discussed the process of dissemination for each province. This was done until the noon of the second day. Each subgroup has two facilitators assigned. Reporting was done in the afternoon of the second day. Each subgroup presented the outputs of the workshop.

The results of the workshop were discussed in detail on Day 3. It was decided that reports of the results will be completed. The report shall be done by province. Seuth and John will make the report for Tuyen Quang while Papang and Jindra will make the report for Daklak Province. The write up shall include identification of information missed in the workshop. The reports will be collated and reported in the annual meeting on February.

### List of participants

Ms. Vu Hai Yen	Vice Director, Office for Agriculture and Rural Development, Yen Son District, Tuyen Quang (LLSP Project Coordinator for Tuyen Quang)
Ms. Vu Thi Huong	Extension worker in Yen Son District, Tuyen Quang
Mr. Truong Tan Khanh	Lecturer in the Faculty to Agroforestry, Tay Nguyen University, Ban Me Thuot, Daklak (LLSP Project Coordinator for Daklak)
Mr. Nguyen Van Ha	Head, District Extension Office, Ea Kar, Daklak
Mr. Tran Van Dong	Extension worker, District extension office, Ea Kar, Daklak
Mr. Pham Van Song	Head of extension club, Ea Dar Commune, Ea Kar, Daklak

Mr. Le Hoa Binh	National Institute of Animal Husbandry, Hanoi (LLSP National Coordinator)
Ms. Jindra Samson	Resource economist, CIAT – Livelihood and Livestock Systems Project, Los Banos, Laguna, Philippines
Mr. John Connell	Agricultural extension specialist, CIAT, Vientiane, Lao PDR
Mr. Francisco Gabunada	Regional Research Fellow, CIAT – Livelihood and livestock systems project, Los Banos, Laguna, Philippines
Mr. Phonepaseuth Phengsavanh	Regional Research Fellow, CIAT – Livelihood and livestock systems project, Vientiane, Lao PDR
Dr. Werner Stür	Smallholder production systems, CIAT – Livelihood and livestock systems project, Los Banos, Laguna, Philippines (LLSP Project Coordinator)

### **Preparations for Annual Meeting in Tuyen Quang**

Le Hoa Binh, P Phengsavanh and W Stür visited Tuyen Quang to discuss and arrange the meeting venue, accommodation, food, transport to Tuyen Quang, field visits, program and other practical arrangements for the workshop with Ms Yen and obtained official permission to hold the 2004 Annual Meeting in Tuyen Quang. All issues were satisfactorily resolved.

## **Manolo Fortich, Bukidnon, Philippines, 13-17 Jan 2004**

Francisco Gabunada Jr.

### Objectives

- Assist in doing participatory diagnosis with focus group of farmers

### Itinerary

13 Jan	Depart Leyte
14 Jan	Arrive Manolo Fortich; planning of PD with collaborators
15 Jan	PD with focus group of farmers in New Sankan
16 Jan	Depart for Leyte

### Persons Met

Ernesto Ducusin, Municipal Agriculture Officer, LGU-Manolo Fortich, Bukidnon  
Mar Remotigue, Municipal Agriculturist, LGU-Manolo Fortich, Bukidnon  
Gemma Cana, Agricultural Technician, LGU-Manolo Fortich, Bukidnon  
Cynthia Velasco, Agricultural Technician, LGU-Manolo Fortich, Bukidnon

### Activities and Outcomes

#### **PD at New Sankan**

The farmers we work with in Manolo Fortich are from New Sankan, a sitio (hamlet) of Barangay Sankan. The farmers are members of the Allied Neighborhood Multipurpose Cooperative (ALNEMCO).

At the time of the PD, the cooperative was able to avail of a dairy heifer grow-out scheme from the National Dairy Authority (NDA). The scheme is part of NDA's save the herd program – aimed at producing dairy cows locally rather than importing them. A total of 17 yearling Brahman X Holstein Friesian female crosses were availed by the cooperative. These were raffled off to determine who among the interested farmers can avail of the animals. The agreement is that the farmers will take care of the animals. When the animals get pregnant, the NDA will pay them. In addition, they get first priority to avail of a dispersal scheme involving the same animal. The dispersal scheme will involve the farmer paying the cow with its offspring.

The farmers and the DA-LGU all attributed the emergence of these opportunities to the fact that farmers have planted forages in quite large areas. The forages are planted in the sloping areas. These areas are not used for cropping. Instead, these areas serve as communal grazing lands. The main impact of forages at present is reduction in time and labour required to find feed for the animals. The main livestock raised in the area are cattle; which are used mostly for draft and as savings.

During the PD, the farmers expressed their interest to know more about improved management for cattle; especially because they recognized that the animals they availed of



are different from their native cattle. They were interested to have trainings and cross-visits for that purpose.

Among the topics they were interested to know more about were:

- a) Feeding management
- b) Housing
- c) Animal health
- d) Breeding management

Aside from training, farmers were also interested to do experimentation in management, especially on feeding.

For the trainings, they preferred to have it once a month, together with their monthly meeting.

The farmers also mentioned their interest to establish closer linkages so that they could avail of assistance from the local government (municipal) council. In fact, three municipal councilors were present and expressed their willingness to support the farmers' activities.

## East Kalimantan, Indonesia, 20 Jan-2 Feb 2004

Francisco Gabunada Jr.

### Objectives

- Conduct a training course on “Developing forage technologies with small farmers” for field workers in East Kalimantan, Central Kalimantan, South Kalimantan, South Sumatra and West Sumatra LLSP sites
- Assist the LLSP Indonesia country coordinator in starting out small farmer experiments in Sepaku

### Key people met

East Kalimantan:

Ir. H. Ibrahim, Head, Dinas Pertanian, Penajam Pasir Utara (national coordinator)

Yakob Pangedongan, Production Section, Dinas Peternakan East Kalimantan (national coordinator)

LLSP-collaborating field workers in East Kalimantan sites

Central Kalimantan:

Mr. Dadir, PPL, Kecamatan Sabarang

South Kalimantan:

Moch. Talin Yusuf, Feed Section, Dinas Peternakan, Kabupaten Tanah Laut, South Kalimantan

West Sumatra:

Gusnimar, Dinas Peternakan Kabupaten Lima Puluh Kota, West Sumatra

South Sumatra:

Zulkifli, Dinas Peternakan, Kabupaten Muara Enim, South Sumatra

Other resource persons:

Maimunah Tuhulele – Jakarta

Dr. Tatang Ibrahim – BPTP West Kalimantan

### Itinerary

20-21 Jan	Manila – Singapore - Balikpapan
21-27 Jan	Conduct of training at BLBP Sempaja
28-31 Jan	Visit Sepaku to get farmer experiments started
1-2 Feb	Balikpapan – Singapore - Manila

### Summary

A training course on developing forage technologies with small farmers was conducted for LLSP-collaborating field workers in East Kalimantan, South Kalimantan, Central Kalimantan, South Sumatra and West Sumatra on 21 – 27 January 2004. The course was aimed to provide the participants with basic knowledge on working with farmers in developing forage technologies. It was attended by 11 participants from East Kalimantan and one each from South Kalimantan, Central Kalimantan, West Sumatra and West Sumatra. Resource facilitators include FSP collaborators both in East Kalimantan and from other parts of

Indonesia. A blend of sessions in the training room as well as actual field work was employed.

Seeds of forages were likewise distributed to participants from the other provinces. The main task they were requested to do was to get the seeds established in preparation for their upcoming activities (to get farmers to see the forages and also provide initial planting materials).

A visit was done to Sepaku to do a production system analysis. This was followed by planning out what aspects are possible for farmers' experimentation.

### **Training for collaborating field workers in Developing Forage Technologies with Small Farmers**

The training was conducted in BPLP in Sempaja, Samarinda. The major aim of the training was to provide the participants with the basic principles and skill in working with farmers on forages in their sites. It was attended by a total of 15 participants, all working with the LLSP in the sites (Appendix 1). The training covered topics related to farmer participatory research as well as forage agronomy. A major reference for the training was the FSP Manual on Developing Forage Technologies with Farmers.

A blend of interactions within the session room, practice/hands-on sessions in the farmers' field as well as practical sessions around the session hall were employed for the training.

The topics were all covered in time as planned. The training was designed so as to give the trainees a starting point in FPR and forage agronomy. As such, the participants were not expected to go back from the training with a lot of knowledge on FPR and forages. Rather, they were expected to be able to do the initial work on developing forage technologies in their own sites. The least that was expected is for the participants to establish working relationship with the farmers in their sites as well as gather secondary and first hand information that will give us an idea on possibility of introducing forages in the area. Likewise, the participants were expected to be able to select potential sites for forage technology development work with the farmers. They will be assisted in doing other succeeding steps like PD.

The participants from the provinces other than East Kalimantan were likewise provided forage seeds. These were intended to be established in their sites for use later to show the farmers as well as source of planting materials. Instructions on how to establish and manage forages were provided.

### **Getting started with farmers experimentation in Sepaku**

A visit was conducted to Sepaku farmers (farmer group Maju Sejahtera). The aim was to get started with experimentation. Individual visits were conducted, followed by a meeting.

The production system in the area is cattle for savings. The animals are penned for night feeding. The following morning, they are tethered around the pens. Then they are grazed loose and herded in the *Imperata* grassland in the afternoon.

Farmers wanted to raise more and bigger animals. However, their main constraints are labor for feeding and area for expanding the forages.

A list of options for improving was generated with Yacob and Heri. These included increasing the amount of feed given to the animal, improving the quality using legumes as well as looking for other supplements that can be added to improve feed quality.

It was agreed that the options will be further developed. Then these will be presented for the farmers to choose from in the next meeting.

**Table 1. List of participants of the training**

Name	Office
Jumiati	Sambutan / Makroman, Samarinda
Eddi Supriono	Kantor Peternakan, Samarinda
Mujianto	Balikpapan
Suwito	Margamulyo Samboja
Bambang Surijadi	Babulu, Penajam Paser Utara
Oddang	Babulu, Penajam Paser Utara
Elvira	Sepaku, Penajam Paser Utara
Prawoto	Long Kali, Kabupaten Paser
Ardiansya	Muara Wahau, Kutai Timur
Faturrahman	Lua Kulu, Kutai Kertanegara
Mono	Distannak, Kabupaten Berau
Moch. Talin Yusuf	Disnak Kab. Tanah Laut, Kalimantan Selatan
Gusnimar	Kabupaten Lima Puluh Kota, Sumatera Barat
Zulkifli	Disnakan Muara Enim, Sumatera Selatan
Dadir	Disnak Kabupaten Kapuas, Kalimantan Tengah

**Table 2. List of facilitators of the training**

Name	Office
Heriyanto	Dinas Pertanian, Kabupaten Penajam Paser Utara
Tugiman	
Tatang M. Ibrahim	BPTP, Kalimantan Barat
Yakob Pangedongan	Disnak Propinsi, Kalimantan Timur

## **Cambodia, 1-17 March 2004**

Phonepaseuth Phengsavanh

### Objectives

- Facilitate field trip for cassava team from CIAT-Asia to LLSP sites
- Assist collaborators to develop workplan for 2004 and transform it into action plan.
- Help local staffs to conduct PD in the villages.

### People met

Mr. Kao Phal, Director, Department of Animal Health and Production

Dr. Sorn San, LLSP National coordinator, DAHP

Mr. Chea Socheat, Provincial collaborator, AHPO, Kampongcham province.

Mr. Chim Si Mach, Technician, AHPO, Kampongcham province.

Mr. So Phal, Technician, AHPO, Kampongcham province.

Mr. Don Savat, Chief of District Agriculture Forestry and Fisheries office, Pongea Krek district.

Mr. Van Sun, Chief of District Animal Health and Production office, Pongea Krek district.

### Itinerary

1 Mar	Vientiane–Bangkok-Phnompenh
2 Mar	Field visit to Kampongcham with CIAT-Asia cassava team
3 Mar	Work with Sorn San about the detail plan for this trip
4-9 Mar	Work with Francisco Gabunada on developing the processes for improving livestock production systems and dissemination, also detail plan for workshop/training course on PR in China.
10-15 Mar	Work with Cambodian-LLSP team in Kampongcham on workplan, action plan for the first 6 moths and conduct PD in the village.
16 Mar	Work with Sorn San to finalise the workplan 2004
17 Mar	Fly back to Laos

### Summary

The trip was combined three activities such as (1) facilitate the field trip for cassava team from CIAT-Asia to Kampongcham province, where the team has visited smallholder cassava starch production in two villages, the cassava starch production factory and cassava plantations in the areas. The team visit the sites for studying the situation of cassava production to gain understanding and see the potentials for developing project to help farmers to improve cassava production and processing (2) organize the meeting with local collaborators firstly to review of the works in 2003, in the review two main problems have been mentioned by provincial and district staffs. These problems were lack of experiences on working with farmers and knowledge of forage management; Secondly to develop workplan which has been focused on forage technology development with farmers and transform activities into action plan for next four months (March-June 2004), and (3) assist provincial and district staffs to conduct their first PD in the village and then let the staffs do the rest (11

villages) by themselves. The result of first PD showed potential for LLSP to work in the village to help farmers to solve their feeding problems by developing forage technologies together.

### **Facilitation of field trip for cassava team from CIAT-Asia**

The team from CIAT-Asia visited Kampongcham province where LLSP has started working there with farmers to develop forage technologies. The team was interested in cassava production and processing by smallholders in the areas to see if there any potential for the team to develop a project to work with farmers in introduction more varieties that suitable for animal feeding and starch production to smallholders.

The team spent one day to visit some cassava production areas, starch factories and smallholders' starch processing approaches. In addition to this the team also visited LLSP site and discussed with local staffs about forage evaluation in the village and plan for developing forage technologies in the areas.

### **Workplan and action plan for next 6 months**

In the beginning of the meeting, the team reviewed all activities that have been implemented in 2003. Most of the staffs have been satisfied with the activities and the way project has work with farmers, however, most of them mentioned that this was the first experience for them in both of working with farmers and forages, so they were not so confident. The main output in 2003 was identification of some promising species for the areas. These varieties are: *Stylosanthes guianensis* CIAT 184, *Bracharia* spp. Except Ruzi, *Panicum maximum* Simuang (only in wet season). The variety that they don't like the most is *Paspalum atratum* Terenos, because of becoming tough very fast and animals don't like to eat. In term of technical issue, many staffs mentioned that they have lack of knowledge in term of forage management (cutting technique-time and height).

Workplan was finalised and there were two main activities of (1) forage technology development with farmers and (2) capacity building for local collaborators. Workplan was developed based on the outputs in 2003 in order to continue from identification of varieties to develop forage technologies with farmers. In 2004, The LLSP-Cambodian team will focus more activities on how to assist farmers to integrate forages into their farms. The second important activity is to build up the skills for local staffs on how to work with farmers and technical issues such as forage management, animal nutrition.

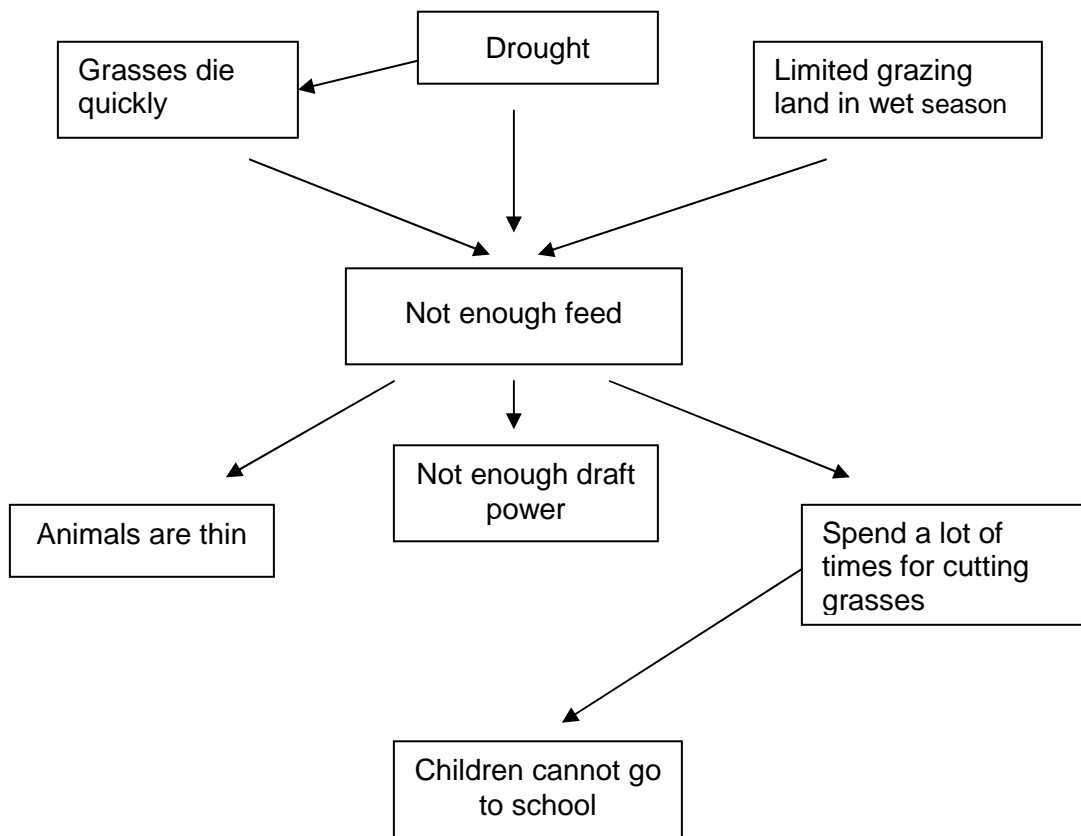
The team then has worked out to put some activities that need to be done in first six month. These activities are: Site selection, conducting the PD, Technology options offering meeting and helping farmers to test some options.

### **PD in village**

The team met in the first day to discuss about the tools and also plan for conducting PD in 12 villages in three districts of Tbong Kmum (2 villages), Pongea Krek (5 villages) and Cheung Prey (villages). According to the plan developed during meeting, first PD was conducted in Trapeng Pring village, Pongea Krek district, where Seuth and Dr. Sorn San took a lead in facilitation of PD to share the experiences with provincial team, who then will conduct PDs in the rest of 11 villages. There were approximately 30 farmers participated in PD. The tools used in the PDs were Resource mapping, Seasonal calendar, Wealth ranking, Problem identification and analysis.

The main agricultural activities are paddy rice, livestock raising and other crop (cassava). Farmers will also sell labor when they are free from agricultural activities. Main animals kept in these villages are buffaloes, cattle, pigs and poultry. The cattle and buffaloes are kept mainly for draft power and also for meat. In the dry season, cattle and buffaloes freely graze in rice field where the main feed is rice stubble which is very low in quality. In the wet season, the animals are tied because they are not allowed to freely roam in order to prevent from damaging to the crops. During this period farmers usually spend whole morning to cut natural grasses to feed their animals.

Below is the PD result:



Farmers have also mentioned about the disease problem, but saying that they can control by vaccinating their animals.

After conducting first PD, the team met again in the office to share and exchange the experiences and improve some of facilitation skills and utilization of the tools, then the provincial team went on to do PDs in the rest of 11 villages from middle of March to middle of April. The result will be record and report later.

**Plan for the next activities**

After conducting all PDs, the team will meet and discuss about potential villages for LLSP to work in 2004. According to the plan discussed in the earlier meeting, 4-5 villages from 12 will be selected, farmer focus groups will be formed in each selected village who will work with

the team first this year. The team feels that they will not be able to work more than 5 villages, as staffs will need to learn in this first year and they will need more mentoring.

Following the village selection and based on the problems found during the PDs, the team will develop and discuss about possible solutions or technology options with farmers so they can select and test to overcome the problems that they are facing now.



## East Kalimantan, Indonesia, 9-23 March 2004

Francisco Gabunada Jr.

### Objectives

- Conduct a hands-on training course on “production system analysis and planning activities in the LLSP sites” for field workers in East Kalimantan LLSP sites
- Assist the LLSP Indonesia country coordinators in developing action plan and workplan for the sites

### Key people met

Ir. H. Ibrahim, Head, Dinas Pertanian, Penajam Pasir Utara (national coordinator)  
Yakob Pangedongan, Production Section, Dinas Peternakan East Kalimantan (national coordinator)

LLSP-collaborating field workers in East Kalimantan sites

### Itinerary

9-10 Mar	Phnom Penh – Singapore - Balikpapan
11-14 Mar	Discussed and drafted workplan and action plan with Yacob and Ibrahim
15-19 Mar	Hands-on training
20 Mar	Wrap-up discussion and planning with Yacob and Ibrahim
21-23 Mar	Balikpapan – Singapore – Manila - Leyte

### Development of the Action Plan and Workplan for East Kalimantan

The action plan and workplan for East Kalimantan was developed with Yacob and Ibrahim. In the process of developing the plans, a clearer definition of the term “site” was attained. In the past, there were confusions brought about by misconceptions in site definition (some sites were *desa* (villages), others were *kecamatan* (sub-district), while others were *kabupaten* (district). This time, it was decided that sites were classified based on the *Kecamatan* (sub-district) level. The main reason for this was that the farming systems were still similar in each *kecamatan*. Moreover, the people we work with at the *kecamatan* level were still the same. As a result, each *kecamatan* had villages where more of the work was on developing technologies, and other villages where more of the work is dissemination.

### Hands-on training on production system analysis and planning activities at each site

A hands-on training on how to do production systems analysis and plan out farmer-participatory activities was conducted in Sepaku. The training was informal and consisted of a series of discussions in the session room and interaction with the farmers (either through individual visits or group meetings).

The training was done in the PPL Office at Sepaku. It was attended by 9 collaborating field workers and one farmer-leader (Table 1). Yacob and Heriyanto served as facilitators. All participants were accommodated in Heriyanto’s house. Food was purchased and prepared by a hired local person.

The main purpose of the training was to develop the skills of participants in facilitating farmers' analysis as well as planning ahead their next activities. The participants were doing the actual production system analysis work in the field as a team. The results were discussed together with them. They were also shown how to report the outputs as well as generate succeeding activities based on the output.

Another major activity done during the training was to classify with the participants what stage of the forage technology development process their site and farmers were (Table 3). From this, it was hoped that the participants were able to get a grasp as to what direction forage technology development was headed. This would enable them to better identify the succeeding activities.

It was learned from the training that most sites consist of farmers who are still lower in the forage technology ladder (Table 4). There are just a few who are ready for experimentation. This could mean that the field workers could easily deal with the farmers in planning experimentation as there are just a few of the farmers. However, the field workers have to be very careful in selecting what direction to go with experimentation. It has to be one where most of the other farmers down the technology ladder are headed to. As such, it would not be good to experiment with one farmer who is very different from the other farmers down the ladder.

**Table 1. List of participants of the hands-on training**

Name	Office
Jumiati	Sambutan / Makroman, Samarinda
Eddi Supiono	Kantor Peternakan, Samarinda
Bambang Surijadi	Babulu, Penajam Paser Utara
Oddang	Babulu, Penajam Paser Utara
Mahmud	Samboja, Kutai Kartanegara
Elvira	Sepaku, Penajam Paser Utara
Masturi	Sepaku, Penajam Paser Utara
Abdul Khalid	Sepaku, Penajam Paser Utara
Sumali (farmer)	Sepaku, Penajam Paser Utara
Abu Bakar	Paser Belengkong, Pasir

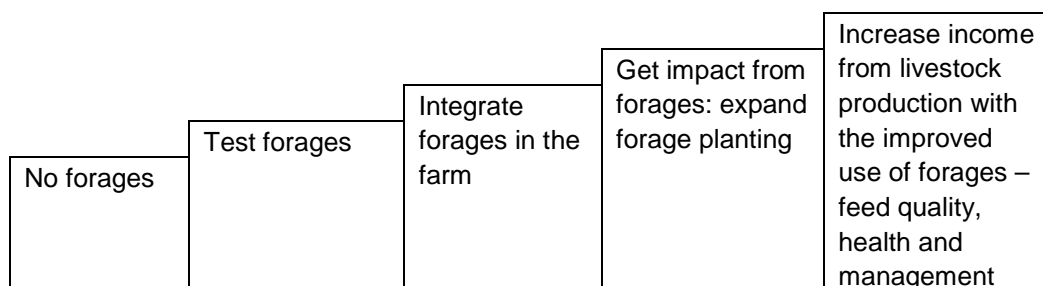
**Table 2. List of facilitators**

Name	Office
Heriyanto	Dinas Pertanian, Kabupaten Penajam Paser Utara
Tugiman	BLPP, Kutai Kartanegara
Tatang M. Ibrahim	BPTP, Kalimantan Barat
Yakob Pangedongan	Disnak Propinsi, Kalimantan Timur

**Table 3. Program of the hands-on training**

Date	Time	Activity
15 March Monday	a.m.	Introduction Session Planning for visit to site
	p.m.	Visit to site (interact/gather information from farmers)
16 March Tuesday	a.m.	Discuss results/information obtained from visit How to make report of the results of the visit
	p.m.	LLSP's process in working with farmers Plan for meeting/PD with farmer group PD/meeting with farmer group
17 March Wednesday	a.m.	Discuss results of the PD/meeting
	p.m.	How to report results of the meeting/PD
18 March Thursday	a.m.	Locating the sites in the technology development process
	p.m.	Identifying activities of the sites based on where they are in the technology development process Planning for "offering options to farmers"
19 March Friday	a.m.	Meeting with farmer group to offer options
	p.m.	Final discussion

**Table 4. The Forage Technology Development Ladder**



Translation:	<i>Tidak HMT</i>	<i>Uji HMT</i>	<i>Integrasi HMT dengan usaha tani</i>	<i>Manfaat dampak dari HMT ; perluasan</i>	<i>Peningkatan pendapatan dari pemanfaatan HMT ternak</i>
Objective	Identify potential impact of forages and farmers interested to try forages in their farms.	Identify adapted forage species  e.g. <i>B. brizantha</i> , <i>B. decumbens</i> , <i>B. humidicola</i> , <i>Setaria</i>	Identify forages options  e.g. firebreak, contour hedgerow, cut-and-carry, grazing, cover crop	Identify benefits; encourage expansion  e.g. save labor, enough feed, control erosion	Develop technologies to improve livestock production system e.g. more income from livestock
Skills Needed	<ul style="list-style-type: none"> <li>• <i>PR</i></li> <li>• <i>Forage agronomy</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>PR</i></li> <li>• <i>Forage agronomy</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>PR</i></li> <li>• <i>Forage agronomy</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>PR</i></li> <li>• <i>Forage agronomy</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>PR</i></li> <li>• <i>Forage agronomy</i></li> <li>• <i>Animal nutrition</i></li> <li>• <i>Animal health</i></li> <li>• <i>Animal management</i></li> </ul>
Results		<i>Researcher happy (know what species are adapted to soil and climate)</i>	<i>R&amp;F identified ways to integrate forages in the farm</i>	<i>F happy – save labor, control erosion LS happy – enough feed</i>	<i>FAMILY happy – increased income from livestock production Motorcycle; send children to school Farmers expanding livestock production</i>

**Table 4. The Forage Technology Development Ladder (cont.)**

	No forages	Test forages	Integrate forages in the farm	Get impact from forages : expand forage planting	Increase income from livestock production with the improved use of forages – feed quality, health and management
Activities	Site visits Secondary data	Characterize production system <i>(ciri has system produksi ternak)</i> farmer visits secondary data PD	Identify options for farmers to test <i>(identifikasi pilihan bersama petani)</i>	Evaluate options with farmer <i>(penilaian pilihan dengan/bersama petani)</i>	Develop technology to improve income from livestock <i>(pengembangan teknologi untuk peningkatan pendapatan dari ternak- peranserta petani)</i> Identify problems/opportunities to increase income from livestock

## Philippines, 18-28 March 2004

Werner Stür

### Objectives

- Assist Jindra with developing an M&E and impact assessment strategy for the LLSP.
- Meet with Papang to develop his work plan for 2004, agree on a research project for his MSc thesis and agree on an implementation plan.
- Meet with LSU staff to strengthen linkage between CIAT and LSU.
- Discuss administrative and financial matters relating to the LLSP with Dea and IRRI.

### People met

- CIAT – Dea Bonilla, Jindra Samson and ILRI staff
- IRRI – Ian Wallace, Kwami and Lisa Panes
- LSU – Papang, Dr. Paciencia Milan (President of LSU) and Prof. Sulpecio Bantugan (Animal Science, Advisor for Papang's thesis)

### Itinerary

18 Mar	1330-1830, QF19, Brisbane-Manila
19-24 Mar	CIAT office at IRRI, Los Baños (Jindra and Dea)
24 Mar	1330-1445, PR193, Manila-Tacloban
25-27 Mar	Leyte State University (with Papang)
27 Mar	1525-1635, PR194, Tacloban-Manila
28 Mar	CIAT office at IRRI, Los Baños
1 Apr	CIAT office at IRRI, Los Baños
1 Apr	2045-0615(+1), QF20, Manila-Sydney
2 Apr	0830-1000, QF25, Sydney-Brisbane

### Summary

#### M&E

Jindra and I reviewed the project framework and targets. We discussed how these targets will be achieved through the various project activities and what information we will need to collect to be able to measure them.

We also discussed our experience with previous M&E strategies in FSP 1 and 2, and reviewed data and information collected. We concluded that most of the previous M&E effort was directed towards satisfying the reporting needs of CIAT and the donor, and was biased towards data collection such as number of new farmers planting forages, areas planted, and planting material distributed. The data gathered provided useful information but there were several problems. These were that a lot of time and effort was needed to collect the data by local partners and project staff, some local partners reacted to the request for 'numbers' with providing 'inflated' figures as is common practice in government reporting; there was a long delay between the time the information was gathered and when it was analysed and feedback was provided to partners; little qualitative information or stories on which to 'hang the data' were fed back making the information less usable. One key assumption in the M&E

system was that the number of farmers testing forages and then abandoning growing of forages was minimal and thus negligible. While this assumption was probably correct at the beginning of FSP-2, when there were few sites and considerable support by site extension workers, the drop-out rate of farmers increased as the project started to disseminate forage technologies rapidly to many new sites and with less support from the new extension workers (PD and provision of planting material) to farmers and also less support from the project to the new extension workers in terms of training and mentoring.

A second part of the M&E strategy in FSP-2 was a more detailed survey of approximately 30 farmers who had grown forages for some time at key sites. This provided very good information on forage technology development at sites and helped the project to understand forage technology development. Site partners were involved in the survey so would have got a good immediate understanding of the situation from conducting the survey. The only downside was that the information then had to be analysed by project staff (not simple to handle this amount of data) and there was a long delay between data collection and analysis.

We decided that the LLSP needed a M&E plan that:

- (1) Provides immediate feedback and learning to local partners as they are the ones working with farmers and need to be able to quickly respond to changing situations. Also, the project is only working with them for a limited time and they will need to be able to take over all decision-making before the end of the project. The earlier this is engendered the greater the chance of sustainability of project results.
- (2) M&E should not be onerous but be part of normal extension activities and provide useful information and data for the extension worker to report to her/his own office.

This means that M&E has to be integrated into the normal workplan of our site collaborators. We discussed options for how to do this and Jindra will assist Papang and Seuth with integrating M&E into country workplans. She will also put together a draft paper that describes the M&E strategy including impact assessment.

### **Administrative and other issues**

Dea and I reviewed project finances, the financial report to ADB for the previous 6-months period, office and insurance issues. There were no major problems. I met with Ian Wallace, the IRRI Director of Administration and Finance, and several of his staff to keep them informed of CIAT activities and clarify health insurance cover and insurance for our staff. I also met with ILRI staff to keep them informed of upcoming LLSP activities.

### **Visit to LSU**

I met with Dr. Paciencia Milan, President of LSU, to thank her for LSU support to the project and for allowing Papang to be seconded to work with CIAT as Research Fellow. She was happy with the collaboration with CIAT and strongly supports the Master of Agricultural Development course undertaken by Papang as part of his work for CIAT. Papang and I discussed options for his thesis and discussed this with his advisor, Prof. Sulpecio Bantugan from the Department of Animal Science. We agreed on a subject for the thesis: "The use of forages in smallholder livestock systems in Southeast Asia". Papang will develop an outline for the thesis and provide a review of literature by the end of August 2004. Briefly, the study will use feedback from site partners and case studies to document the range of uses and benefits of growing forages, and analyse common factors for adoption and impacts on livelihoods.

We also reviewed the project strategy for Outputs 1 and 2, and discussed the 2004 workplans for Indonesia, China and Philippines. Papang prepared a first draft of his workplan for the coming year and we agreed on a format. Papang will complete and send to me. I will ask Seuth to also prepare a workplan based on the same format and circulate them.



## Savannakhet, Lao PDR, 19-24 March 2004

Phonepaseuth Phengsavanh

### Objectives

- To discuss about LLSP project strategies and also plan for the project activities in the site.

### People met

Mr. Thien Somthaboun, Head of the Provincial Livestock and Fisheries Section of Savannakhet.(PLFS)

Mr Khamchanh Sidavong, Deputy head of PLFS

Mr. Bounmy Pheowankham, Head of Livestock production unit

Boun Yod Namsena, Head of District Agriculture and Forestry Office (Outhumphone district)

Inpeng Xaysopha, Deputy Head of District Agriculture and Forestry Office (Outhumphone district)

Phoulien Sihavong, District extension worker

### Itinerary

19 Mar	Travel from Vientiane to Savannakhet
20 Mar	Meeting with Provincial local authorities to discuss about project activities and also LLSP plan for 2004 in Savannakhet
21 Mar	Visit villages with goat production in Khanthabouli district
22 Mar	Visit villages with goat production in Outhouphone district
23 Mar	Planning meeting for PD with provincial and district staffs
24 Mar	Return to Vientiane

### Summary

The trip was organized in order to discuss about workplan for 2004, where the work will focus more on how to help farmers to improve goat production by developing forage and feed technologies together.

In the meeting with local authorities, project strategies and Lao-LLSP workplan for 2004 with the main activities of introducing new forage and feeding systems to goat raising farmers and helping local staffs how to develop these or how better to deliver technologies to farmers.

The discussion about district and village selection with local staffs resulted in 7 villages have been identified for doing PD. In order to prepare for doing this the action plan (for March to May) has been also discussed with local staffs who will go to attend PD course organized by Participatory Research for Development in Upland Project (PRDU) in Xiengkhuang, then these staffs will conduct PD in LLSP target sites in their district.

#### **Meeting with local authorities**

Then meeting with local authorities was organized in Provincial Livestock Office to discuss about LLSP strategies and the involvement of Laos in regional network and workplan for

2004. Seuth presented strategies and workplan and follow by discussion about how to implement all of the activities for the project and if these activities are fit in the provincial policy for development of animal production.

In the presentation, Seuth has emphasized on development of animal production systems as a whole and goat production systems particularly for Savannakhet, then how deliver these technologies to more farmers and talked also about what kind of training needed for local staffs in order to implement all of the activities in the workplan.

The authorities suggested a few districts for LLSP to work in and also assigned two provincial to coordinate with project.

### **Planning with local staffs**

Following the discussion with authorities, LLSP team (Seuth and provincial team) continued to work on action plan for next three month (March-May), there were a few issues have been discussed:

#### **1. Select the district and villages to work in 2004**

There were two districts of Khanthabouly and Outhoumphone with high potential for goat production have been identified by provincial staffs and the team visited few villages in each districts where goat production become more popular. The number of goats in the visited villages ranges from about 150-200 head/village. The goats freely browse during dry season, but it become more difficult in rainy season when most of the land is used for cropping, and goats will need to be tethered.

As a result of discussion and visiting to the villages, 7 villages were selected for doing PD with farmers. The team planned to do PD at the end of April to beginning of May.

#### **2. Send local staffs to PD course in XK**

In order to build up the ability of local staffs and share experiences with other experienced people in other CIAT projects, 3 local staffs (Two from province and 1 from district level) were sent to PD training course that organized by PRDU in Xiengkhuang. In the course, these staffs will be learn about basic skills needed for working with farmers and also basic tools in conducting PD.

## CATAS and LLSP Sites in Hainan, China, 1-15 April 2004

Francisco Gabunada Jr. and Phonepaseuth Phengsavanh

### Objectives

- Conduct workshop on LLSP strategy and training on PR for local staffs
- Finalize the workplan and transform into action plan

### Key people met

Prof. Yi Kexian, LLSP Coordinator for China  
Mr. Tang Jun, CATAS Tropical Pasture Research Center (collaborating staff)  
Mr. Xia Wangliang, CATAS Tropical Pasture Research Center (collaborating staff)  
Mr. He Huaxuan, CATAS Tropical Pasture Research Center (collaborating staff)  
Prof. Liu Goudao, Head, Tropical Crops Germplasm Institute  
Participants of the training course on PR

### Itinerary

1 Apr	Arrival of Papang to Hainan
2 Apr	Review of accomplishments in 2003
3-4 Apr	Visit to sites
5 Apr	Continue review of site accomplishments and preparation for training Arrival of Seuth to Hainan
6-9 Apr	Training on PR and Field exercise
10 Apr	Workshop on LLSP strategies
11 Apr	PD at Long Con Village, Fulong Town, Baisha County
12 Apr	Seuth depart for Lao PDR
12-14 Apr	Develop workplan and action plan with team at Zhanjiang
15 Apr	Departure of Papang from Hainan

### Summary

The visit was conducted to review accomplishments of LLSP in China in 2003, plan out next activities (formulating an action plan and workplan) as well as conduct a training course for collaborators, so they can get better started in their activities.

The need for CATAS collaborators to select a site where they can focus their on-farm work was identified. There was also a need to modify their approach in working with farmers towards a more farmer-participative one. Likewise, CATAS has to find ways to get local authorities more involved in the on-farm activities. An action plan has been formulated with the CATAS collaborators. This would help guide them along in their activities.

The training course enabled the participants to do a participatory diagnosis in the sites. It also exposed them to the basic principles of farmer participatory research. In the future, there is a need for more focused and hands-on training. This would maximize learning and skill

development of participants. There is a need to select participants in such a way that the level of knowledge at the start of the training is similar. This would avoid backtracking to help those who are behind, at the expense of those who are more advanced.

Prof. Yi has been transferred to Zhanjiang in the mainland. As such, most of the field work will be done by Mr. Tang Jun and Mr. Xia Wanliang, who are based in Hainan. Prof. Yi still serves as coordinator since he still devotes 20 percent of his time in Hainan.

## Activities

### (1) Review of the Accomplishments in 2003

The accomplishments in the different sites of China for 2003 were reviewed (Table 1). This was started by listing the sites that CATAS worked with since FSP. Then the status and activities for each site was discussed. The approaches of LLSP-China in working with farmers to integrate forages in their farms were also discussed.

The activities of the CATAS collaborators mainly involve on-station research. As such, their involvement with FSP provided them some hands-on experience in working with farmers.

Most of the time, the CATAS collaborators learn about potential sites from secondary data as well as from students in SCUTA that do surveys as part of their studies. The CATAS collaborators follow this up by contacting the farmers, asking if they are interested to try out forages, and then distributing the seeds.

There is a need for more exposure to the collaborators in working with farmers. This includes providing necessary hands-on experience in village and farmer selection, follow-up visits and interaction with farmers as well as other activities in developing technologies with farmers. Another aspect needed is strengthening of working relationship with local authorities. Based on the discussion, it was felt that there is a need for CATAS collaborators to find a site where the activities could be focused.

Since the FSP time, a total of 22 villages (from 12 towns belonging to 6 counties) were involved in forage testing. The status of the sites and major activities last year are shown in Table 2.

Some changes have occurred in LLSP China from last year. These are as follows:

- Prof. Yi Kexian was promoted as director of the Subtropical Crops Research Institute in mainland China. His presence in Hainan was reduced to 20% of his time. Prof. Wang Dongjin took over his previous position as head of the Tropical Pasture Research Center in CATAS. Prof. Wang specializes in animal science.
- The Tropical Pasture Research Center is now involved in animal breeding and production.
- Mr. Zhou Hanlin left for Beijing on study leave last September.
- Most of the activities in 2003 were done by Mr. He Huaxuan and Mr. Tang Jun.
- Mr. Xia Wangliang returned to CATAS from an assignment in Cambodia. He is now a member of the LLSP China team. Mr. Xia is specializing in animal production and has done on-station experiments in swine fattening.

- Mr. Tang Jun attended the English training course in Lao PDR from November to December.
- The main activity in China now is how to get forages out of station to farmers. In order to do this they will need to understand the process and commit their times. They need to understand the process of helping farmers to integrate forage into the farms, including village selection, follow up and so on. Without this we can not move to production systems.
- Most of the activities were started in the second half of the year. Not so much forage establishment was done because it was getting into the dry season when the activities started.
- There seems to be a need to find local collaborators. The potential cooperators are the staff in the town level. There is a need to identify the specific people in the town level, and find ways to get their involvement. These may be in the form of trainings and working together. One other very important activity is to involve these people in planning (presenting the annual plan for the sites, then identifying which activities they can be involved). These planning maybe in annual or semi-annual basis. We will need to encourage them to work with local authorities more because at the end these people will be the one who do the work of dissemination.
- There is a need to select a focus site. It seems like there is really no focus site at present and there is a need for the team to find a site where they can focus their activities. The team needs help in site selection and getting started in the focus site.
- The LLSP China team is composed of more new people and mentoring activities are needed. Prof. Yi agrees to get Mr. Tang Jun more involved in communication. Mr. He Huaxuan has had a considerable experience and would be helpful in getting Mr. Tang Jun and Mr. Xia started.

## (2) Training Course to enhance skills in Participatory Research Methods

The course was attended by 19 participants (Appendix 2). The participants could be classified as follows:

County	Farmers	Ag. Research Center	Animal Research Center	Total Number
Ledong	1			1
Qiongzong		1		1
Baisha	4		4	8
Baoting			1	1
Danzhou			2	2
CATAS-TPRC				6

Half of the trainees have already joined in previous PR trainings. The basis for selection of the participants was potential for collaboration and need to strengthen existing collaboration.

The training consisted of three days session in the training room, followed by a practical session where participants used their learnings in doing participatory diagnosis with farmers in Wentou Village (Table 3). The last day was spent on analysis and reporting of results as well as sharing of LLSP experiences in other countries.

Participants expressed their interest to learn more about how to work with local collaborators and farmers in forages. They also wanted to learn more about forage and livestock production technologies.

Future training plans will be incorporated in the workplan. A scheme worth trying would be one which is more informal, exposure-oriented and involving less number of participants that are of similar skills level.

### **3. Review and Formulation of the workplan and action plan for 2004**

This was done in Zhanjiang Province where office of Prof. Yi was located. Zhanjiang is located in mainland China and would involve a 2-hour boat trip from Haikou followed by a 3-hour drive from Hai Yan.

The major agreements are as follows:

- a) Mr. Tang Jun will devote 80% of his time for LLSP activities. Since Prof. Yi's location is far from the sites in Hainan, Mr. Tang Jun, together with Mr. Xia and Mr. He will do most of the work in the sites. Mr. Tang Jun will also be communicating with LLSP and Prof. Yi regarding the LLSP activities in the field.
- b) Production system improvement (output 1) activities will be focused on rabbit and goat production. Immediate activities will include formation of production groups, analysis of the production system and facilitating conduct of trials.
- c) Dissemination (enhancing expansion in existing sites as well as working in new sites) shall constitute bulk of the activities. Plans were laid out on how to work on existing sites as well as in new sites (Table 4). These plans were based on learnings from previous experiences. The need to work with local collaborators was identified and incorporated in the plans.
- d) For staff training, practical and hands-on mentoring activities were planned. These trainings shall be addressed to specific sites and collaborators.
- e) The team was satisfied with the results of the English training course attended by Mr. Tang Jun. They suggest that future courses shall focus more on speaking and listening (phonetics); since this is the part where they are less confident.

**Table 1. Accomplishments and Plans of the LLSP sites in China**

*Site: Changsa Town, Wenchang County*

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>• Changsa (2003)</li> <li>- Vegetable is main crop</li> <li>- Goats</li> <li>- Chickens</li> </ul>	<ul style="list-style-type: none"> <li>• farmer planting forage for a long time for stylo leaf meal</li> <li>• vegetable production became more viable</li> <li>• farmers did not grow forages</li> </ul>	<ul style="list-style-type: none"> <li>• stop</li> </ul>	

*Site: Fulong Town, Baisha County*

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>• Wentou (2000)</li> <li>- Goat raising</li> <li>- Rabbits</li> <li>- Geese</li> </ul>	<ul style="list-style-type: none"> <li>• identification of opportunities by meetings and survey</li> <li>• selected one farmer to carry out rabbit fattening experiment (started) - using stylo</li> <li>• 16 farmers grow forages</li> <li>• farmer training held in CATAS</li> <li>• host of cross-visit conducted for other farmers (from other villages) to see how forages are used for rabbits</li> <li>• established farmer nursery/multiplication site for grasses</li> </ul>	<ul style="list-style-type: none"> <li>• pig fattening</li> <li>• continue rabbit fattening experiment (proportion of grasses and stylo that is good for rabbit; supplementation of rice bran)- facilitated by Mr. Xia Wan Liang</li> <li>• start PME (plan)</li> <li>• training</li> <li>• cross-visit</li> <li>• botanical survey to find out what plants are eaten by animals</li> </ul>	Li Cai Ming – Animal Technology Service Center, Baisha County
<ul style="list-style-type: none"> <li>• Xinkai (2002)</li> <li>- Buffaloes for plowing/draft</li> <li>- Rabbits</li> <li>- Pigs</li> </ul>	<ul style="list-style-type: none"> <li>• identification of opportunities by meetings and survey</li> <li>• 22 farmers grow forages</li> <li>• farmer training held in CATAS</li> <li>• farmers were brought to cross-visit at Wentou and Laogen</li> <li>• 2 farmers raise rabbits</li> </ul>	<ul style="list-style-type: none"> <li>• dissemination</li> <li>• integration and expansion of forages</li> <li>• botanical survey to find out what plants are eaten by animals</li> </ul>	Li Cai Ming – Animal Technology Service Center, Baisha County Luo Hui Quan – Agricultural Technology Extension Station

Site: Fulong Town, Baisha County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>• Baizhun (2003)</li> <li>- Buffaloes for plowing/draft</li> <li>- Pigs</li> <li>- Chicken</li> </ul>	<ul style="list-style-type: none"> <li>• 22 farmers planted forages</li> <li>• dissemination</li> <li>• 1 training course for farmers (forage and animal production-50 farmers trained in village 1 day); farmer training held in CATAS; farmers were brought to cross-visit at Wentou</li> </ul>	<ul style="list-style-type: none"> <li>• do PD</li> </ul>	<p>Li Cai Ming – Animal Technology Service Center, Baisha County Luo Hui Quan – Agricultural Technology Extension Station, Fulong</p>
<ul style="list-style-type: none"> <li>• Daola (2002)</li> <li>- Buffaloes for plowing/draft</li> <li>- Pigs</li> </ul>	<ul style="list-style-type: none"> <li>• 13 farmers grow forages in 2002</li> <li>• some forage fields not maintained</li> <li>• new head of village; some farmers lost confidence and did not manage the forages</li> <li>• farmer training held in CATAS</li> </ul>	<ul style="list-style-type: none"> <li>• dissemination</li> <li>• integration and expansion of forages</li> </ul>	<p>Li Cai Ming – Animal Technology Service Center, Baisha County Luo Hui Quan – Agricultural Technology Extension Station</p>
<ul style="list-style-type: none"> <li>• Keren (2002)</li> <li>- Buffaloes for plowing/draft</li> <li>- Pigs</li> </ul>	<ul style="list-style-type: none"> <li>• 17 farmers grow forages in 2002</li> <li>• 3 farmers maintained their forages</li> <li>• local government asked them to grow forages in 2002 and provided rabbits</li> <li>• local government funds stopped</li> <li>• disease in rabbits led them to stop</li> <li>• some farmers planted forages in wrong place-under trees and did not survive)</li> <li>• farmer training held in CATAS</li> <li>• farmers were brought to cross-visit at Wentou and Laogen</li> </ul>	<ul style="list-style-type: none"> <li>• dissemination</li> <li>• integration and expansion of forages</li> </ul>	<p>Li Cai Ming – Animal Technology Service Center, Baisha County Luo Hui Quan – Agricultural Technology Extension Station</p>



Site: Xishui Town, Baisha County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>• Longcun (2004)                             <ul style="list-style-type: none"> <li>- Cattle free grazing</li> <li>- Buffaloes for plowing/draft</li> <li>- Pigs</li> <li>- poverty alleviation project govt. gave cattle to farmers (LLSP support the forage component)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Potential site</li> <li>• 11 farmers received planting materials for establishment</li> <li>• collected secondary data</li> </ul>	<ul style="list-style-type: none"> <li>• Visit and assess</li> </ul>	Li Cai Ming – Animal Technology Service Center, Baisha County
<ul style="list-style-type: none"> <li>• Yacha (2002)                             <ul style="list-style-type: none"> <li>- Rabbits</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 1 farmer grow forages in 2002</li> <li>• still grow for rabbits</li> <li>• farmers were brought to cross-visit at Wentou and Laogen</li> </ul>	<ul style="list-style-type: none"> <li>• Just keep</li> </ul>	Li Cai Ming – Animal Technology Service Center, Baisha County
<ul style="list-style-type: none"> <li>• Zhaxi (2001)                             <ul style="list-style-type: none"> <li>- Buffaloes for plowing/draft</li> <li>- Goats</li> <li>- Cattle free grazing</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 15 farmers in 2001</li> <li>• only 2 farmers maintained forages (poverty alleviation project provided goats to farmers and FSP seeds- 10-15 heads</li> <li>• goat disease carried from new goats killing most goats</li> <li>• large areas can be used to graze goats)</li> <li>• farmer training held in CATAS</li> </ul>	<ul style="list-style-type: none"> <li>• dissemination, integration and expansion of forages; do another PD</li> <li>• botanical survey to find out what plants are eaten by animals</li> </ul>	Li Cai Ming – Animal Technology Service Center, Baisha County

Site: Rongbang Town, Baisha County (2002)

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>• Fanglao</li> <li>• Pogao</li> <li>• Fanghong</li> </ul>	<ul style="list-style-type: none"> <li>• most stopped</li> <li>• lack of land (used for rubber and sugarcane)</li> <li>• lack of technologies to manage animals (a lot of disease)</li> <li>• typhoon damaged the forages so farmers lost confidence and refused when offered the next time</li> </ul>	<ul style="list-style-type: none"> <li>• stop</li> </ul>	

Site: Qiatou Town, Chengmai County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>• Zhenghao (2003)</li> <li>- Goats</li> <li>- Pigs</li> </ul>	<ul style="list-style-type: none"> <li>• 7 farmers planted forages (stylo and King Grass, <i>Paspalum atratum</i>)</li> <li>• farmer meeting and distribute planting materials</li> <li>• good support from Qiaotou town veterinary station</li> </ul>	<ul style="list-style-type: none"> <li>• goat fattening expt</li> <li>• dissemination</li> <li>• potential key site</li> <li>• on-farm evaluation of indigenous and improved shrub legumes for goats</li> <li>• 2 new villages</li> </ul>	Fu Yanfa - Veterinary Station, Qiaotou

Site: Baodao Town, Danzhou County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>• Sidui (2002)</li> <li>- Chicken</li> </ul>	<ul style="list-style-type: none"> <li>• 11 farmers grow forages in 2002</li> <li>• still maintained under mango</li> <li>• Stylo and King Grass for soil erosion and green manure in fruits)</li> <li>• Hilly/mountainous</li> <li>• No livestock, only chicken</li> </ul>	<ul style="list-style-type: none"> <li>• encourage expansion (within village)</li> </ul>	Lin Yanshen - Animal Technology Service Center, Danzhou

Site: Dacheng Town, Danzhou County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>• Jianbei (2002)</li> <li>- Goats</li> <li>- Chicken</li> </ul>	<ul style="list-style-type: none"> <li>• 2 farmers in 2002</li> <li>• maintained forages for supplement to goats</li> </ul>	<ul style="list-style-type: none"> <li>• dissemination</li> </ul>	Lin Yanshen - Animal Technology Service Center, Danzhou

Site: Eman Town, Danzhou County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>Shenglong (2003)                             <ul style="list-style-type: none"> <li>Goats</li> <li>Pigs</li> <li>Chicken</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>6 farmers in 2003</li> <li>forages for goats and pigs supplement</li> <li>very dry area, close to the sea soil is stony</li> <li>many farmers raise goats but lack of forage; farmer group meetings</li> <li>one farmer planted Leucaena in almost 2 hectares area - 60cm high now)</li> </ul>	<ul style="list-style-type: none"> <li>Dissemination</li> <li>on-farm evaluation of indigenous and improved shrub legumes for goats</li> </ul>	Lin Yanshen - Animal Technology Service Center, Danzhou

Site: Yaxing Town, Danzhou County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>Laogen (2001)                             <ul style="list-style-type: none"> <li>Rabbits</li> <li>Forages integrated in fruit trees</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>1 farmer grow forages in 2001</li> <li>still maintain for rabbits (lesser than before but now planning to increase again)</li> <li>host of a cross-visit for other farmers (from other villages) to see the use of forages for rabbits</li> </ul>	<ul style="list-style-type: none"> <li>case study (rabbit, forage utilization)</li> <li>dissemination to other farmers</li> <li>carry out rabbit fattening experiment</li> </ul>	Lin Yanshen - Animal Technology Service Center, Danzhou

Site: Basuo Town, Dongfang County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>Sifanmuchang (2003)                             <ul style="list-style-type: none"> <li>Forages for seed production</li> <li>No livestock</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>14 farmers grow forages 2003</li> <li>farmer meetings and distribute planting materials</li> <li>stylo, Leucaena and Macroptilium for seed production and integration in mango</li> </ul>	<ul style="list-style-type: none"> <li>just keep seed prodn going on</li> <li>seed distribution</li> </ul>	Fu Nanping - Animal Technology Service Center, Dongfang

Site: Datian Town, Dongfang County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>Tang Mayuan (2002)</li> </ul>	<ul style="list-style-type: none"> <li>farmers stopped growing forages because mangos are too big</li> <li>forages in mango plantation</li> </ul>	<ul style="list-style-type: none"> <li>stop</li> </ul>	

Site: Zhizong Town, Ledong County

Village and Description	Accomplishments	Plans	Collaborator
<ul style="list-style-type: none"> <li>• Da'an (2001)</li> <li>- Stylo seed production</li> <li>- Buffalo</li> <li>- Cattle</li> <li>- Goats</li> <li>- Pigs</li> <li>- Chickens</li> </ul>	<ul style="list-style-type: none"> <li>• 6 in 2001</li> <li>• most maintained for seed production</li> <li>• farmer meetings and distribute seeds - CATAS buy back the seed to sell; established nursery/multiplication site;</li> <li>• stylo seed production</li> <li>• buffalo, cattle, goats, pigs, chicken</li> </ul>	<ul style="list-style-type: none"> <li>• encourage use of forages for animal prodn</li> <li>• grass seed prodn (Melinis, Paspalum, Panicum, Brachiaria), Macroptilium</li> </ul>	<p>Yang Yue Ming – farmer graduated in Hainan University</p>
<ul style="list-style-type: none"> <li>• Jiaba (2000)</li> <li>- Stylo seed production</li> <li>- Buffalo</li> <li>- Cattle</li> <li>- Goats</li> <li>- Pigs</li> <li>- Chickens</li> </ul>	<ul style="list-style-type: none"> <li>• 22 in 2000; most maintained for seed production</li> <li>• farmer meetings and distribute seeds - CATAS buy back the seed to sell; established nursery/multiplication site</li> <li>• buffalo, cattle, goats, pigs, chicken, fish</li> <li>• stylo seed production</li> </ul>	<ul style="list-style-type: none"> <li>• encourage use of forages for animal prodn</li> <li>• grass seed prodn (Melinis, Paspalum, Panicum, Brachiaria), Macroptilium</li> </ul>	<p>Yang Yue Ming – farmer graduated in Hainan University</p>
<ul style="list-style-type: none"> <li>• Qiuwen (2001)</li> <li>- Stylo seed production</li> <li>- Buffalo</li> <li>- Cattle</li> <li>- Goats</li> <li>- Pigs</li> <li>- Chickens</li> </ul>	<ul style="list-style-type: none"> <li>• buffalo, cattle, goats, pigs, chicken</li> <li>• stylo seed production</li> <li>• 16 in 2000; most maintained for seed production</li> <li>• farmer meetings and distribute seeds - CATAS buy back the seed to sell</li> <li>• established site nursery/multiplication</li> </ul>	<ul style="list-style-type: none"> <li>• encourage use of forages for animal prodn</li> <li>• grass seed prodn (Melinis, Paspalum, Panicum, Brachiaria), Macroptilium</li> </ul>	<p>Yang Yue Ming – farmer graduated in Hainan University</p>
<ul style="list-style-type: none"> <li>• Tianyu (2002)</li> <li>- Stylo seed production</li> <li>- Buffalo</li> <li>- Cattle</li> <li>- Goats</li> <li>- Pigs</li> <li>- Chickens</li> </ul>	<ul style="list-style-type: none"> <li>• buffalo, cattle, goats, pigs, chicken</li> <li>• stylo seed production</li> <li>• 8 in 2000; most maintained for seed production</li> <li>• farmer meetings and distribute seeds - CATAS buy back the seed to sell</li> <li>• established nursery/multiplication site</li> </ul>	<ul style="list-style-type: none"> <li>• encourage use of forages for animal prodn</li> <li>• grass seed prodn (Melinis, Paspalum, Panicum, Brachiaria), Macroptilium</li> </ul>	<p>Yang Yue Ming – farmer graduated in Hainan University</p>

**Table 2. Training course participants “Enhance skills in Participatory Research Methods”**

Name	Address	Contact No.
Yang Yueming	Jiaba Village, Zhizhong Town, Ledong County	13876741106
Wu Huanlin	Agricultural Research Center, Qiongzong County	13876519598
Liang Yonghao	Animal Husbandry Research Center, Baisha County	13086084725
Lin Zhihan	Animal Husbandry Research Center, Baisha County	13012649477
Li Caiming	Animal Husbandry Research Center, Baisha County	13976408699
Li Rien	Animal Husbandry Research Center, Baisha County	27723383
Gao Qingduo	Wentou Village, Fulong Town, Baisha County	27591123
Gao Minghong	Wentou Village, Fulong Town, Baisha County	27591037
Gao Zhaoquan	Xin Village, Fulong Town, Baisha County	27591056
Zhuo Kaiping	Animal and Fish Research Center, Baoting County	13322080498
Lin Yansheng	Animal Research Center, Danzhou County	13807550110
Luo Hui	Animal Research Center, Danzhou County	13976801981
Fu Yongquan	Kongba Village, Qifang Town, Baisha County	13086036507
Yi Kexian	South Subtropical Crops Research Institute, CATAS, Hu Xiu Xin Cun, Zhanjiang 524091, Guangdong	23300645
Wang Dongjin	TPRC, CATAS, Hainan	23300605
He Huaxuan	TPRC, CATAS, Hainan	23300337
Xia Wangliang	TPRC, CATAS, Hainan	23300414
Tang Jun	TPRC, CATAS, Hainan	23300337
Yu Daogeng	TPRC, CATAS, Hainan	23300475
Wang Wenqiang	TPRC, CATAS, Hainan	23300414
Chen Zhiquan	TPRC, CATAS, Hainan	23300475

**Table 3. Program of Participatory Research Training Course – CATAS, 6-10 April 2004**

*Tuesday – April 6*

08.00 – 08.30	Opening Ceremony and Photo Session
08.30 – 10.00	Introduction of participants and resource people Expectations of participants (Card & Chart) What will this course do for you? Presentation of course content and house rules
10.00 - 10.15	BREAK
10.15 – 12.00	The need of participatory approaches in Agricultural development Conventional approach in Agricultural development Participatory approach Basic skills: Neutrality, Listening, Questioning, Facilitation, cards and chart and brainstorming.
12.00 – 14.30	LUNCH BREAK
14.30 – 17.00	Basic skills: (continued)

*Wednesday – April 7*

08.00 – 12.00	Participatory Diagnosis 1. Preparation Secondary information collection Village selection Village walk Planning a field activities
10.00-10.15	BREAK
10.15-12.00	2. Problem identification Mapping (exercise) Seasonal calendar (exercise) Historical calendar (exercise) Problem identification (exercise)
12.00 – 14.30	LUNCH BREAK
14.30 – 17.00	3. Problem analysis (exercise)

*Thursday – April 8*

08.00 - 17.00	Field work
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*Friday – April 9*

08.00 – 17.00	Presentation and Discussion of output
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## Appendix 1. Action Plan for China (first draft)

### Output 1. Improvement of production system

#### a) Rabbit Production System Sites:

- Wentou, Fulong, Baisha – 2 farmers
- Xinkai, Fulong, Baisha – 1 farmers
- Laogen, Yaxing, Danzhou – 1 farmer

Activity	Schedule	Person Responsible	Expected Output
<b>A. Characterization of the production System</b>			
<p>1. Visits to farmers raising rabbits to gather the following information:</p> <ul style="list-style-type: none"> <li>a) What are the sources of income and livelihood of the farmer? Do importance weighting of his sources of income and livelihood.</li> <li>b) How many rabbits are raised?</li> <li>c) How are the rabbits raised?                             <ul style="list-style-type: none"> <li>- what feeds does the farmer give to the rabbits?</li> <li>- Where does he get the feed?</li> <li>- if the farmer buys the feed, how much is the cost?</li> <li>- How much feed and how many times a day the rabbits are given feed</li> <li>- seasonal calendar of feed given (monthly calendar on relative amount of feeds given – type of feed and weighting of amount)</li> <li>- breeding management</li> <li>- other management activities</li> <li>- labor use (who does each activity – husband, wife, children)</li> <li>- other inputs used</li> </ul> </li> </ul>			report answering the questions a to g
<ul style="list-style-type: none"> <li>d) How are the rabbits sold? (farmer brings the rabbit to market or trader goes to farmer)                             <ul style="list-style-type: none"> <li>- At what age are the rabbits sold?</li> <li>- What is the price?</li> <li>-</li> </ul> </li> </ul>			

<ul style="list-style-type: none"> <li>- When they sell the rabbits, how many rabbits are sold at one time?</li> <li>- If they sell every month, how many rabbits are sold per month?</li> </ul> <p>e) How many rabbits did he sell last year? How much was the income?</p> <ul style="list-style-type: none"> <li>- Calendar showing how many rabbits they sold each month last year and the income</li> </ul> <p>f) What problems do they have in rabbit production?</p> <ul style="list-style-type: none"> <li>- problem ranking and analysis</li> <li>- What have they done to solve the problem?</li> </ul> <p>g) What do they want to happen to their rabbit production in the future?</p> <ul style="list-style-type: none"> <li>- how do they want to attain what they want?</li> </ul>			
<p><b>B. Meeting with all the farmers who raise rabbits</b></p> <ul style="list-style-type: none"> <li>a) Validate the problems and opportunities identified during the visits.</li> <li>b) Identify options with farmers</li> <li>c) Ask if there are farmers interested to try the options.</li> <li>d) Plan out with interested farmers how to try the options (and when):</li> </ul>			<p><b>report of results</b></p>
<p><b>C. Facilitate farmer experimentation through visits (2 times a month)</b></p> <ul style="list-style-type: none"> <li>a) Ask for farmers comments on the experiment :             <ul style="list-style-type: none"> <li>- What is the difference in the performance of the rabbits under the treatment compared to the control?</li> <li>- Is the practice he is testing easy or hard to do? Why?</li> <li>- Does the farmer have any suggestion to improve the practice he is testing? What is the suggestion and why?</li> </ul> </li> </ul>			<p><b>report of the experiments:</b></p> <p>what is the experiment? What are the treatments?</p> <p>How many animals? Name of farmer involved and what site.</p>
<ul style="list-style-type: none"> <li>b) Observe. What are the differences between the rabbits in the treatment and the control?</li> </ul>			<p>Answer of questions in a and b</p>



<b>D. Facilitate farmer evaluation of the technology by individual evaluation session at the end of each experiment</b>			<b>report of results</b>
<b>E. Facilitate farmer-to-farmer sharing of results by regular meeting between the farmers doing the experiment (monthly)</b>			<b>report of activity</b>
<b>F. Facilitate presentation of results of the experiments to the whole village.</b>			<b>Report of the activity</b>

**Goat Production System Sites:**

Wentou, Fulong, Baisha – 2 farmers

Zhenghao, Qiaotou, Chengmai – 4-5 farmers

<b>Activity</b>	<b>Schedule</b>	<b>Person Responsible</b>	<b>Expected Output</b>
<b>A. Characterization of the production System</b>			
1. Visits to farmers raising goats to gather the following information:  a) What are the sources of income and livelihood of the farmer? Do importance weighting of his sources of income and livelihood. b) How many goats are raised? c) How are the goats raised? - What feeds does the farmer give to the goats? - Where does he get the feed? - If the farmer buys the feed, how much is the cost? - How much feed and how many times a day the rabbits are given feed - seasonal calendar of feed given (monthly calendar on relative amount of feeds given – type of feed and weighting of amount) - breeding management - other management activities			report answering the questions a to g

<ul style="list-style-type: none"> <li>- labor use (who does each activity – husband, wife, children)</li> <li>- other inputs used</li> </ul>			
<ul style="list-style-type: none"> <li>d) How are the goats sold? (farmer brings the goat to market or trader goes to farmer) <ul style="list-style-type: none"> <li>- At what age are the goats sold?</li> <li>- Where does the farmer sell the goats?</li> <li>- What is the price?</li> <li>- When they sell the goats, how many are sold at one time?</li> <li>- If they sell every month, how many goats are sold per month?</li> </ul> </li> <li>e) How many goats did he sell last year? How much was the income? <ul style="list-style-type: none"> <li>- Calendar showing how many goats they sold each month last year and the income</li> </ul> </li> <li>f) What problems do they have in goat production? <ul style="list-style-type: none"> <li>- problem ranking and analysis</li> <li>- What have they done to solve the problem?</li> </ul> </li> <li>g) What do they want to happen to their goat production in the future? <ul style="list-style-type: none"> <li>- how do they want to attain what they want?</li> </ul> </li> </ul>			
<p><b>B. Meeting with all the farmers who raise rabbits</b></p> <ul style="list-style-type: none"> <li>a) Validate the problems and opportunities identified during the visits.</li> <li>b) Identify options with farmers</li> <li>c) Ask if there are farmers interested to try the options.</li> <li>d) Plan out with interested farmers how to try the options (and when):</li> </ul>			<p><b>report of results</b></p>
<p><b>C. Facilitate farmer experimentation through visits (2 times a month)</b></p> <ul style="list-style-type: none"> <li>a) Ask for farmers comments on the experiment:</li> </ul>			<p><b>report of the experiments:</b></p> <p>what is the experiment?</p>

<ul style="list-style-type: none"> <li>- What is the difference in the performance of the goats under the treatment compared to the control?</li> <li>- Is the practice he is testing easy or hard to do? Why?</li> <li>- Does the farmer have any suggestion to improve the practice he is testing? What is the suggestion and why?</li> </ul> <p>b) Observe. What are the differences between the goats in the treatment and the control?</p>			<p>What are the treatments?</p> <p>How many animals?</p> <p>Name of farmer involved and what site.</p> <p>Answer of questions in a and b</p>
<p><b>D. Facilitate farmer evaluation of the technology by individual evaluation session at the end of each experiment</b></p>			<p><b>report of results</b></p>
<p><b>E. Facilitate farmer-to-farmer sharing of results by regular meeting between the farmers doing the experiment (monthly)</b></p>			<p><b>report of activity</b></p>
<p><b>F. Facilitate presentation of results of the experiments to the whole village.</b></p>			<p><b>report of the activity</b></p>

**Output 2. Improved methods of dissemination**

County	Town	Villages
Baisha	Fulong	Old Villages: Wentou, Daola, Keren, Xinkhai; New Village: Baizhun
	Xishui	Old Villages: Xashi, Yacha; New Village: Longcun
Danzhou	Yaxing	Old Villages: Laogen
	Baodao	Old Villages: Sidui
	Dacheng	Old Villages: Jiabei
	Eman	New Village: Shenglong
Ledong	Zhizong	Old Villages: Qiuwen, Tianyu, Jiaba, Da'an
Dongfang	Basuo	Old Villages: Sifanmuchang
Chengmai	Qiaotou	New Village: Zhenghao

Activity	Schedule	Person Responsible	Expected Output
<b>A. For old villages: encourage expansion of forage planting within the village</b>			
<p>1. Meeting with farmers who have already planted forages to discuss:</p> <ul style="list-style-type: none"> <li>a) What forage species have they planted? How are the forages integrated in their farm? What is the area planted to the forages?</li> <li>b) How do they use the forages?</li> <li>c) What benefits did they get from the forages?</li> <li>d) What are their plans for their forages?</li> <li>e) Who are interested to expand their forages?</li> </ul>			report answering questions a to e
<b>A. For old villages: encourage expansion of forage planting within the village</b>			
2. Identify farmers who have planted and used forages successfully in the village			list of successful farmers and how they use forages
3. Document successful cases through case studies			case studies
4. Create posters of successful cases			posters
5. Visit or meeting with other farmers in the village to ask if they are interested to plant forages.			list of interested farmers
6. Organize interested farmers to visit a successful farmer in the village.			report of cross visit
a) inform the successful farmer about schedule			
b) inform successful farmer of purpose of visit and what he will say to visiting farmers (how he planted and manage the forage and the benefits he got from the forage)			

c) bring the visiting farmers to successful farmer to see his forages and talk with him about his experiences. If necessary, show posters to visiting farmers.			
d) ask the visiting farmers what they think about the successful farmer – do they like to follow what he did? If not why not?			
e) If there are interested farmers, plan out with them what to do. What species do they want to plant? When do they want to plant forages? How much area they want to plant?			plan of next activities (list of farmers, forages to try, area, and schedule
7. Provide planting materials to interested farmers.			list of planting materials provided and farmers
8. Visit the farmers who receive planting materials: a) during planting b) every month During the visit, ask the farmer if he has problems in planting and management of the forage. If he has problems, advise him on how to manage the forage.			report of farmers comments and problems in managing the forages
<b>B. For new villages :</b>			
1. Assess the potential of forage introduction in the village through visits/discussion with farmers and secondary data to answer the following questions: a) Is there a need for forages? b) Do we have options to offer? c) Are there farmers interested to try the forages?			report of villages visited, secondary data and answer to questions a-c
2. If the potential for forages is good at the sites, do a PD to determine:			PD results and answers to questions a-c
a) What problems can be solved by using forages?			
b) Who are the farmers interested to test the forages?			

c) plan out with interested farmers whether they want to test the forages immediately or want to see other farmers who have already used forages			
3. If farmers want to see other farmers using forages, organize a cross-visit:			report of cross-visit and plans of visiting farmers
a) inform the successful farmer about schedule			
b) inform successful farmer of purpose of visit and what he will say to visiting farmers (how he planted and manage the forage and the benefits he got from the forage)			
c) bring the visiting farmers to successful farmer to see his forages and talk with him about his experiences. If necessary, show posters to visiting farmers.			
d) ask the visiting farmers what they think about the successful farmer – do they like to follow what he did? If not why not?			
e) If there are interested farmers, plan out with them what to do. What species do they want to plant? When do they want to plant forages? How much area they want to plant?			
<b>B. For new villages :</b>			
7. Provide planting materials to interested farmers.			list of farmers and planting materials given
8. Visit the farmers who receive planting materials: a) during planting b) every month During the visit, ask the farmer if he has problems in planting and management of the forage. If he has problems, advise him on how to manage the forage.			report of farmers comments and problems in managing the forages



## Savannakhet, Lao PDR, 21-25 April 2004

Phonepaseuth Phengsavanh

### Objectives

- To conduct PD with provincial and district staffs in 2 villages, Outhoumphone district, Savannakhet.

### Travelling people

Bounthavone Kounavongsa – LLSP-LAO project coordinator.  
Phonepaseuth Phengsavanh – LLSP Sub-regional coordinator

### People met

Mr. Thien Somthaboun, Head of the Provincial Livestock and Fisheries Section of Savannakhet.(PLFS)  
Mr Khamchanh Sidavong, Deputy head of PLFS  
Mr. Bounmy Pheowankham, Head of Livestock production unit  
Mr. Seng, Livestock officer, Provincial Livestock Office  
Boun Yod Namsena, Head of District Agriculture and Forestry Office (Outhoumphone district)  
Phoulien Sihavong, District extension worker

### Itinerary

21 Apr	Travel from Vientiane to Savannakhet
22 Apr	Meeting with Provincial and District staffs to review tools and skills in PD.
23-24 Apr	Conduct PD in Phin Tay village
25 Apr	Return to Vientiane

### Summary

The visit focused on conducting PD in villages where goat production is the main activity in the villages. PD in first village has been done to share experiences between staff, and the provincial team then to do the PDs in other 10 villages. The main problems found in Phin Tay village were (1) Goats become thin in the wet season, (2) Goats are infected by orf and (3) Goats walk a long way for feed and sometimes get bitten by dogs.

Based on the result of PDs conducted in 4-5 villages, Outhoumphone district will be selected as focus site for LLSP to work in 2004. Farmer focus group will be formed in each selected village to test some forage technologies to improve goat production in the villages.



**Meeting with provincial and district staffs**

The review meeting with provincial and district staffs was organized in Provincial Livestock Office to review and discuss about the basic skills and tools that will be used in PD with farmers. The staffs have shared the experiences that they have gained during PD training course in Xiengkhuang. Seuth then explained about the tools (mapping, seasonal calendar, problem identification and analysis), expected outcomes and planning for the PD.

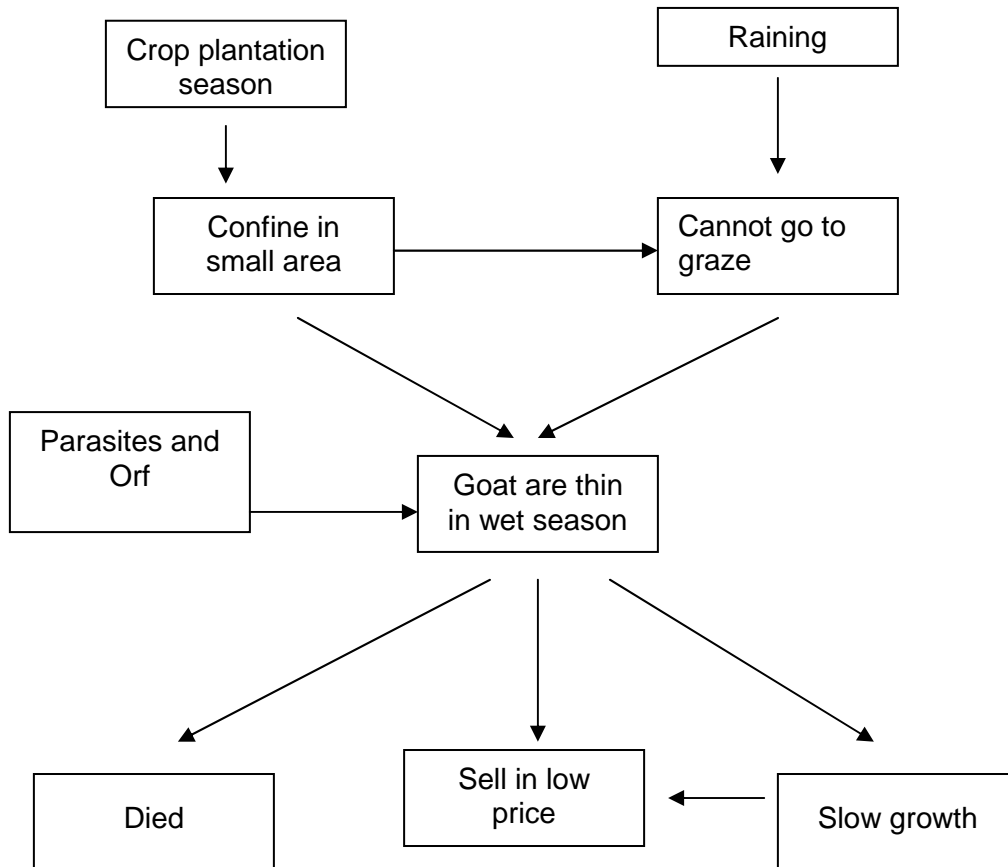
**PD in villages**

The first PD was conducted in Phin Tay village, Outhoumphone district, where there are 82 families, from which about 20 families keep goats. Farmers practice paddy rice and also livestock. Main animals kept in these villages are buffaloes, cattle, goats with some pigs and poultry. The goat production has become a major activity recently, because of high demand, attractive prices, good productivity and a quick return. The number of goats in the village is about 200 heads and has increased every year.

According to the results of PDs, the main problems identified and prioritized were:

1. Goats are thin in wet season
2. Orf (Contagious ecthyma)
3. Goats browse far in dry season and biting by dogs

The result of problem analysis is as followings:



After conducting the first PD together, the provincial team went on to do the PDs in the rest 10 villages. 4-5 villages from these will be selected for LLSP to work in 2004. The team will meet again at the end of May to discuss about technology options for farmers and start on-farm work with farmers.

## Lao PDR, 26 April-2 May 2004 and Philippines, 13-14 May 2004

Werner Stür

### Objectives

- In Lao PDR, discuss project activities, progress and strategy with P. Phengsavanh; discuss project activities and explore options for increased interaction with other CIAT projects with Rod Lefroy, John Connell and Peter Horne.
- In the Philippines, discuss project activities and progress with F Gabunada, J Samson and D Bonilla

### Itinerary

26 Apr	Brisbane-Bangkok-Vientiane
27 Apr-2May	CIAT office Vientiane, Lao PDR
2 May	Vientiane-Bangkok-Manila
12-13 May	CIAT office at IRRI, Los Baños, Philippines
13 May	Manila-Brisbane

### Summary

#### Lao PDR

Seuth and I discussed project activities, progress, work and action plans for China (where he recently returned from a visit with Papang), Lao PDR, Thailand and Viet Nam. We also discussed project activities and options for increased interaction with other projects with Rod Lefroy, John Connell, Peter Horne and Keith Fahrney. We agreed on increased inputs by John Connell (2 months in 2004) to assist with the review and write-up of dissemination methodology in Vietnam and Indonesia. John will facilitate review workshops jointly with Papang and together they will describe methods used at a range of LLSP sites and analyse the reasons for success and failure. The aim is to gain a better understanding of scaling up methods and tools, and based on the analysis produce 'best practice' guidelines. John Connell is employed by CIAT in Asia on the basis of cost-recovery for his time by CIAT projects. He contributes to training and development of participatory methods in the AusAID-funded "Forage and Livestock Systems Project (FLSP)" in Lao PRD, the ACIAR-funded "Accelerating the Impacts of Participatory Research and Extension on Shifting Cultivation Farming Systems in Lao PDR (AIRP)" project, the IFAD-funded "Participatory Research for Development in the Uplands (PRDU)" project and the Vietnam-based SADU agroenterprise project. His involvement will bring the experiences of these projects into the LLSP and greatly assist with a definitive analysis of dissemination methodology.

#### Philippines

Continued the discussion on ways to operationalize M&E with Jindra Samson and F. Gabunada. Also discussed financial and administrative issues with Dea Bonilla.

## Mindanao, Philippines, 27 April- 2 May 2004

Francisco Gabunada Jr. and Jindra G. Samson

### Objectives:

- Visit sites to assess past and present status of the project activities
- Generate ideas and plan out potential activities with site collaborators

### Key people met

Mr. Ernesto Ducusin and DA-KGU technicians of Manolo Fortich  
Mr. Honrado Honradez and DA-LGU technicians of Impasugong  
Engr. Judith Saguinhon and DA-LGU technicians of Malitbog, Bukidnon  
Dr. Perla Asis and Dr. Josue Ledres, Cagayan de Oro City Vet. Office

### Itinerary

26 Apr	Departure for Cagayan de Oro from Leyte (Papang)
27 Apr	Visit Manolo Fortich (Papang)
28 Apr	Visit Impasugong (Papang and Jindra)
29 Apr	Visit Malitbog sites (Papang and Jindra)
30 Apr	Visit Dansolihon and Lumbia, Cagayan de Oro sites (Papang and Jindra)
01 May	Meeting on LLSP LogFrame (Papang and Jindra) Departure for Leyte (Papang) and Los Banos (Jindra)

### Summary

One day field visit in each site were conducted in Manolo Fortich, Impasugong, Cagayan de Oro and Malitbog . The visits aimed to:

1. Assess the present forage-animal production system in the different project sites
2. Visit FSP farmers who have adopted forage and to identify possible take-off points for LLSP output 1 and 4 strategies.
3. Meet with the site collaborators to discuss their plans on how the LLSP project can proceed in their areas and to clarify issues or questions raised regarding the activities for LLSP.

During the visit, the LLSP team brainstormed and constructed strategies on the possible options of coordinating the activities of output 1 and output 4 for sites which will be need both efforts in output 1 and 4. The LLSP ADB log-frame was also reviewed and strategies for the projects' M&E reporting system were discussed.

Technicians were asked to classify the number of farmers at the different stages of forage development (e.g. Stage 1 - testing & evaluating, Stage2 – integrating forage on farm, Stage 3 – integrated on farm and expanding, Stage 4 - utilizing forages for production and obtaining intermediate benefits ). This output will be evaluated and used to select the production group and focus sites for the LLSP project. Other sites were encouraged to proceed on the

dissemination of forage expansion, especially to farmers who are already in the higher stages of animal production.

## Details of the activities

### 1. Visit to Manolo Fortich

The individual farmers in New Sankanán were visited in the morning. All the growing dairy cattle (Brahman X Holstein Friesian cross) dispersed to these farmers were growing well despite the dry season (Appendix 1 shows the weight gains at the first month after dispersal). The main reason was that the forages planted by farmers enabled adequate feed availability. Among the 17 animals, only one got sick. The rest were all healthy and had good body conditions. Most of the farmers expressed their appreciation for having established the forages before the animal came.

The farmers were met as a group in the afternoon. The meeting started with a review of what has been accomplished since the meeting in January. To follow are the major occurrences in the area since January:

- farmers were able to provide cut feed to their cattle
- deworming and vitamin injection (B-complex) last March
- the cooperative received another batch (7 heads) of growing dairy cattle from NDA. These had been distributed to other members.
- The cooperative was also able to receive doe goats from the municipal government. These were likewise distributed to farmer-members. Distribution was done by raffle. The selected member received one head. These animals were presently raised by tethering. One doe died because of bloat, probably due to failure of adjusting to the new management and feeding system (these goats were bought from a range-type enterprise where feed was not as adequate as in New Sankanán).
- Upon the request of the members, the DA-LGU conducted farmer training on goat management last March.

Based on the interactions during the individual visits, it was learned that the cattle were able to consume all the cut feed that was given to them. This was evidenced from absence of leftover feed in the morning. This could imply that the animals were not actually receiving enough amount of feed.

The idea of *ad libitum* feeding was presented to the farmers. A total of 6 farmers were identified by the group to conduct a trial on *ad libitum* feeding.

Plans were then laid out with the farmers and the staff on how to get the trials started. It was agreed that the trials will be started once the rains come to assure availability of adequate amount of forage. LLSP will draft a protocol which will be discussed with the staff and farmers.

Another possible activity in the area will be to encourage farmers to expand forage planting, especially for legumes. This was felt necessary so that the farmers will be prepared when their dairy animals will come to the lactation stage.

A third activity will be to observe how the dispersed goats will perform. Farmers and staff may need to get more knowledge on goat feeding and management so as to assure good performance of these animals.

## 2. Visit to Impasugong

Individual visits were done to the farmers in Crossing Kitanglad (a new site selected for LLSP activities). It was learned that the farmers in the area have just started testing forages and are in a stage where they have planted in small areas, mostly near the house or in areas where there is adequate water (to assure survival of the forages in the dry season). At this stage, the farmers have already chosen what species they will expand to their farms once the rains come. This group of farmers also benefits from the activities of another NGO which is operating in the area. Presently, the NGO has distributed large-sized chicken to some farmers in the area.

In the afternoon, we were able to visit two farmers who have successfully integrated forages in their farms. These farmers were the ones that were actively involved during the FSP 2.

One farmer was integrating forages as hedgerows to his farm. He also raises cattle and goats. Cattle were mostly for draft and reproduction. Goats were tethered around the farm. This farmer has served as host and source of planting materials to new farmers.

The other farmer was also using forages as hedgerows. However, he was also able to convert his farm from annual crops to fruit crops (guava). The fruit trees were planted in between the hedgerows. He has already started selling the fruits and has been getting adequate profit such that he quit his full time work (bus mechanic). During the wet season, he plants the spaces in between his guavas with chili which he sells after harvest. He also has bananas and other fruit trees (at seedling stage this time) such durian and lanzones. This he established along the contour line in preparation to the stage when the guavas become too old to bear fruit.

This farmer represents a very good case of system change. While all other upland farms lay idle during the dry season, the best fruits are produced in the farm during this time. The farmer has a lot of activities going on and sale of fruits has provided a steady influx of income.

The following activities were identified for Impasugong:

- Make a list of farmers in the different stages of forage technology development at each of the barangays we worked with. The stages of forages technology development are as follows:
  - i. Testing forages and want to integrate forages in their farms
  - ii. Integrating forages in their farms and want to expand
  - iii. Have expanded and are already experiencing benefits from forages (mostly intermediate impacts such as saving labour, controlling erosion, can raise more animals because of more feed)
- Once the list will be completed, activities will be planned to suit the needs of each group.
- It is felt that the farmers in Crossing Kitanglad are not yet ready for activities in Output 1. Thus the basis for selecting farmers to conduct Output 1 activities will be the list

produced. Those farmers in Stage iii will be the farmers that we will work with to attain the objectives of Output 1.

### 3. Visit to Malitbog

Individual visits to farmers in Mindagat were done. Two farmers were visited. Both of them have already established a large area to forages. The first farmer visited (Narciso Napuecas, farm located at N8°34'9.8" and E124°52'25.1"; 600 m a.s.l.) had 0.75 has. that he planted to grasses (Napier, Ruzi, *Setaria*) and *Calliandra*. Accordingly, he has tried other cash crops like banana, corn and tomatoes in his farm, but failed. Last year, he tried to fatten 2 heads of cattle using the forages in his farm. After a 2-month period, he was able to sell the animals at a price P4,700 higher than the purchase price. Roughly, this would represent an average daily gain of 330 grams for each animal. He now raises 7 heads of cattle (mostly for reproduction and draft) and 8 heads of goats (also for reproduction; partly housed in a shed which has a lot of room for improvement). These animals serve mainly as a form of savings. He is planning to purchase two heads of cattle just for fattening.

The other farmer (Undo) had also about the same area planted to forages. Presently he has 20 goats and 10 cattle. All the cattle were intended for draft and reproduction. His goats were raised for savings. Of the 20 goats, he takes care of 10 heads; the others, he gets other farmers to take care on a sharing basis. He has built a pen for his goats but was not using it at the time of the visit. He has had a bad experience of the incidence of orfs in goats.

The following activities were identified for Malitbog:

- Make a list of farmers in the different stages of forage technology development at each of the barangays we worked with. The stages of forages technology development are as follows:
  - i. Testing forages and want to integrate forages in their farms
  - ii. Integrating forages in their farms and want to expand
  - iii. Have expanded and are already experiencing benefits from forages (mostly intermediate impacts such as saving labour, controlling erosion, can raise more animals because of more feed)
- Once the list will be completed, activities will be planned to suit the needs of each group.
- It is felt that the two farmers visited in Mindagat were ready for experimentation to achieve Output 1. However, there is a need to get an idea as to how many other farmers in Malitbog are in that stage and what production system are they in.
- The two farmers in Mindagat have a good number of goats and options to improve goat raising can be tested with them.

### 4. Visit to Cagayan de Oro

#### a. Dansolihon

Individual visits were done in Dansolihon, Cagayan de Oro. These farmers were raising goats. Most of the goats raised were obtained through a dispersal program facilitated by the City Veterinary Office. At the time of the visit, all the goats were tethered and the forages planted were grazed over (indicating that the forages were not sufficient and that there is a need to control grazing of the forages). The farmers have constructed houses/sheds for their

goats but the houses were not used to the fullest extent. Moreover, the design of the houses can be improved. One aspect that can be improved is that the houses include a walking area/yard where the goats can go out. This walking area can serve as a potential source of parasite infection since it allows the goats to get in contact with their feces.

A short meeting with the farmer group was conducted at noon time before lunch. To follow are the main points discussed in the meeting:

- Banana and fruit production is the most important source of livelihood in the barangay. This is followed by corn production. The third major source of livelihood is livestock production.
- Among the animals raised, cattle and carabao are the most important livestock because they are used for draft and serve as savings. Next in importance are goats which the farmers sell in times of need. Since last year, most of the farmers were able to sell their goats. These animals were sold when they were about 5-8 months. These were mostly sold to local buyers who either raise the animals or slaughter them for consumption during occasions as birthdays. Selling of goats is most common during the dry season as well as in June (the proceeds are used to defray expenses related to sending their children to school).
- Cattle and carabaos are most heavily utilized for draft in the months of March to April and September to October. These months correspond to the period of land preparation for crop establishment. At these months, time for tethering/feeding is reduced.
- During the wet months (May to October), goats have higher occurrences of diarrhoea or coughing. These months correspond to the period when the animals have least time being tethered because of the rains. At these times, goats are confined in the shed or under the house and provided with cut feed. *This could imply that goats are receiving less feed and are therefore more prone to get infected with diseases and parasites.*
- The farmers attending the meeting felt that they could sustain 4-5 does and 1 breeder, considering the resources they have. At the moment, they are raising 3-5 does since most of the kids have already been sold.

#### **b. Lumbia**

Mr. Nick Ragasajo, the farmer leader in Lumbia was also visited in the afternoon. He is raising 4 dairy cows, 2 growing dairy cattle and 2 calves. He also has 10 goats. Two of his dairy cows are already producing milk. The other two are still pregnant. As with the other farmers in his group (less than 10), Nick is milking his cows (Holstein Friesian dispersed by the National Dairy Authority, NDA). The milk is collected and processed by the cooperative supported by the NDA.

Nick has already established forages (consisting of grasses and legumes) in an area about ½ hectare. Accordingly, the amount of forages is adequate for his animals. However, the major limitation he has now is labor for gathering feed. As such, he opted to purchase brewers' spent grains, bran and copra meal and fed these to his cows. Accordingly, the amount of these feed ingredients he uses is equivalent to the value of 1 liter milk for each day.

Nick's goats are let loose inside his farm. The goats also have a shed/house where they could go in and out at will.



The following activities were identified for Cagayan de Oro:

- Perla will choose two additional sites where farmers are ready to work on Output 1. Initially, she identified Lumbia and San Simon.
- From these barangays, Perla will make a list of farmers in the different stages of forage technology development at each of the barangays we worked with. The stages of forages technology development are as follows:
  - i. Testing forages and want to integrate forages in their farms
  - ii. Integrating forages in their farms and want to expand
  - iii. Have expanded and are already experiencing benefits from forages (mostly intermediate impacts such as saving labour, controlling erosion, can raise more animals because of more feed)
- Once the list will be completed, activities will be planned to suit the needs of each group.
- At this stage (coming into the wet season), efforts will have to be focused on facilitating expansion of forages by farmers. This is the right timing especially for promoting legumes which need some time for raising as seedlings before transplanting.
- It is felt that the farmers visited in Dansolihon can have activities related to Output 1. Two possible entry points are housing and improvement of cut-and-carry feeding management especially in the wet season. This group of farmers need to expand the area they have planted to forages as well.
- There is a need to further describe the dairy cattle production system in Lumbia. There could be a big possibility of doing Output 1 activities in this site.

## Discussion of the LLSP Logframe

The revised project logframe was discussed to formulate ideas on how future activities can be planned out (or vice-versa) to address the monitoring, evaluation and reporting requirement of the project. The discussion focused on identifying activities, indicators needed to be measured, monitored and reported. One of the results of the discussion was to generate strategies on how M&E can be incorporated in the workplan activities. The initial activity planned was a dissemination methodology activity per municipality. This aims to have a deeper understanding of the different dissemination methods and tools used in the previous project and generate learning from it ( eg. which method/tool has been most effective and why?). The learnings will be used as topics for discussion on another workshop that aims to build skills of extension workers to focus, understand and plan more effectively dissemination activities using different methods. In this workshop, EW will also be strengthened in their capacity to record data, analyse output and write reports which will be very useful for the M&E. All these proposed activities will have to be approved by the national coordinator.

Papang, I have revised the paragraph below...please check if its correct. If not, you can just delete the one I've written.

The revisions of the LLSP logframe were discussed. Discussion was focused on indicators and other parameters that are necessary for monitoring, evaluation and reporting. It was during the discussion that the need to do dissemination methodology review workshop was identified. The plan is to work by site, allotting two days for each site.

## Overall Comments

At all sites, there is a need to:

- a) Identify who are the farmers at the different stages in forage technology development. Each stage will call for different activities which the site collaborators can implement. This is very important so that we will know whom to target for the activities we will do.

Sites	NUMBER OF FARMERS			
	Stage 1	Stage2	Stage 3	Stage 4
	No forages – want to test forages	Testing forages – want to integrate forages in their farms	Integrating forage on farm - want to expand forage planting and use	Expanding forage planting/use and obtaining intermediate benefits – want to increase income from better use of forages

- b) Encourage expansion of forages by farmers in the sites. This is the right time to do this activity since the wet season is about to begin.
- c) Review the descriptions of the focused production systems, then start formulating options to improve such production systems.
- d) Identify production groups that can carry out output 1 activities and has the interest to simultaneously work with activities identified for output 4 (eg. Generating market information and awareness).
- e) Identify the purpose of raising animals and its extent or contribution to smallhold livelihood income.
- f) Output 4 activities will be limited to sites and farmers who have identified animal production as source of major income or in the advance stages of forage development and animal production.

Appendix 1. Preliminary performance data of dispersed animals in New Sankanán\*

Farmer	Ear Tag No.	Age as of 12 Jan 04 (mos)	Wt. as of 7 Jan 2004 (kg)	Wt. as of 16 Feb 2004 (kg)	Growth (kg)	ADG (kg)
Labe, Aida	7025	9	181	196	15	0.428571
Salingay, Chizen	7042	7	181	201	20	0.571429
Cat-awan, Eladio	7026	9	188	195	7	0.2
Gabitano, Proserfina	7047	7	168	192	24	0.685714
Magdura, Vicente Sr.	6957	7	197	220	23	0.657143
Jabinal, Adora	6955	7	213	235	22	0.628571
Domingo, Jose	7043	7	176	196	20	0.571429
Ganol, Nova	6960	6	176	190	14	0.4
Francisco, Mario	6993	6	187	198	11	0.314286
Lim, Danilo	6965	6	171	180	9	0.257143
Magdura, Roland	7046	7	160	190	30	0.857143
Cabarles, Rodolfo	7041	7	167	170	3	0.085714
Manato, Roberto	6969	6	160	185	25	0.714286
Cabarles, Ronnie	6972	6	150	170	20	0.571429
Labunos, William	6967	6	150	148	-2	sick
Gabitano, Rejadol	6970	6	154	190	36	1.028571
Hulagpos, Domeo	7094	7	152	180	28	0.8

\* animals in shaded cells will be tried for ad libitum feeding

2nd Batch (27Feb04)	Ear Tag No.	Age. as of 27 Feb 2004 (kg)	Wt. as of 27 Feb 2004 (kg)
Monter, Wennie	6979	7	164
Ayuban, Danilo	6980	7	166
Jabinal, Renato	6974	7	151
Malaya, Saturnino	7840	9	172
Estorgio, Evaristo	6984	8	163
Sohento, Samson	6985	7	153
Leuterio, Rey	7095	9	156

Appendix 2. Seasonal calendar of activities related to management of crops and ruminants in Dansolihon

Activity	J	F	M	A	M	J	J	A	S	O	N	D
Rainfall	3	0	0	2	8	10	10	6	5	4	3	3
Use of Cattle/Carabaos for Draft	X	X	XXX	XXX	XXX	X		X	XX	XX		X
Activities involving cattle/carabao												
Ploughing	X	X	XXX	XXX	XXX				XX	X		
Hilling Up						X				X		
Transport	X							X				X
Goats are least tethered (housed in shed most of the time due to rains)					X	X	X					
Occurrence of diarrhoea and coughing in goats <sup>a</sup>					XXX	XXX	XXX	XX	XX	X		
Periods when goats are tethered most of the time (due to less rain, no crops and little available forages for cutting)		XXX	XXX	XXX	XXX							

<sup>a</sup> During this period, goats are thin and sickly; young and weak goats die; some farmers deworm at this time

Appendix 3. Daily calendar of activities related to management of ruminants in Dansolihon

Time	Activities for Carabao		Activities for Cattle		Activities for Goats
	Used for Draft	Not Used for Draft	Used for Draft	Not Used for Draft	
4 a.m.	tether	tether	tether	tether	
6 a.m.	ploughing		ploughing		tether
9 a.m.	wallow	wallow	water/tether in shade	water/tether	shade, water, feed
10 a.m.			ploughing		
11 a.m.					
12 nn					
1 p.m.					
2 p.m.	ploughing	tether		shed	
3 p.m.	wallow		tether/shed		shed
4 p.m.	ploughing	cut feed/shed			
5 p.m.	tether/cut feed/shed				
6 p.m.					

## Savannakhet, Lao PDR, 15-23 May 2004

Phonepaseuth Phengsavanh

### Objectives

- Assist provincial team to develop workplan and action plan for 2004;
- Meet with farmer focus groups in villages.
- Collect basic information of goat marketing.

### Travelling people

Bounthavone Kounavongsa LLSP-LAO project coordinator.  
Phonepaseuth Phengsavanh LLSP Sub-regional coordinator

### People met

Mr Khamchanh Sidavong, Deputy head of PLFS  
Mr. Bounmy Pheowankham, Head of Livestock production unit  
Mr. Seng Sivasak, Livestock officer, Provincial Livestock Office  
Phoulien Sihavong, District extension worker

### Itinerary

15 May	Travel from Vientiane to Savannakhet
16-17 May	Work in Phin and Xepon districts to collect basic information of goat market.
18-19 May	Develop workplan and action plan for 2004 with provincial team.
20-22 May	Work with focus groups in Outhoumphone districts
23 May	Return to Vientiane

### Summary

The trip was organized in order to discuss about workplan for 2004 and transform it into an action plan. The action plan has been developed based on the activities and the time of implementation every three months.

According the result of PD, the focus groups of farmers were formed in 3-4 villages. During this trip, the national and provincial team went to meet with these focus group and shared experiences on how to work and plan with focus group on the development of forage technologies.

The team went to two districts along the National Road No. 9 to the Vietnamese border to collect basic information about goat market in the region. The number of goats in this region increased by a factor of two (according to provincial statistic), the only problem raised by farmers was that there are not enough goats for sale. This unfilled demand for more goats shows that the LLSP needs to engage with traders and middlemen to get a better understanding of this (and other issues) experienced by traders.

### **Developing workplan and action plan for 2004 with provincial team**

In the beginning of the meeting, the team reviewed all activities that have been implemented in 2003. These activities were introduction of *Gliricidia sepium* to smallholders, study of local goat production in the province and also cross visit for provincial staff on forage technology development. The question to ask the staffs then is how we go further from this point. In order to stimulate local staff to generate ideas, the workplan 2004 of LLSP-LAOS was presented and discussed.

There were three main activities that are planned for this year in Savannakhet:

- (1) Forage and feed technology development with goats farmers, and
- (2) Capacity building for local collaborators.
- (3) Study on market basic information with farmers

After discussion about detail of each activity, the provincial and district team continued to develop action plan and budget needed to carry out these activities.

### **Meeting with farmer focus groups**

This year LLSP-Lao expect to work with small group of farmers (up to 15 farmers) in 3-4 villages, because the staffs especially from focus district will need to learn more on how to introduce and forage and feed technologies with farmers.

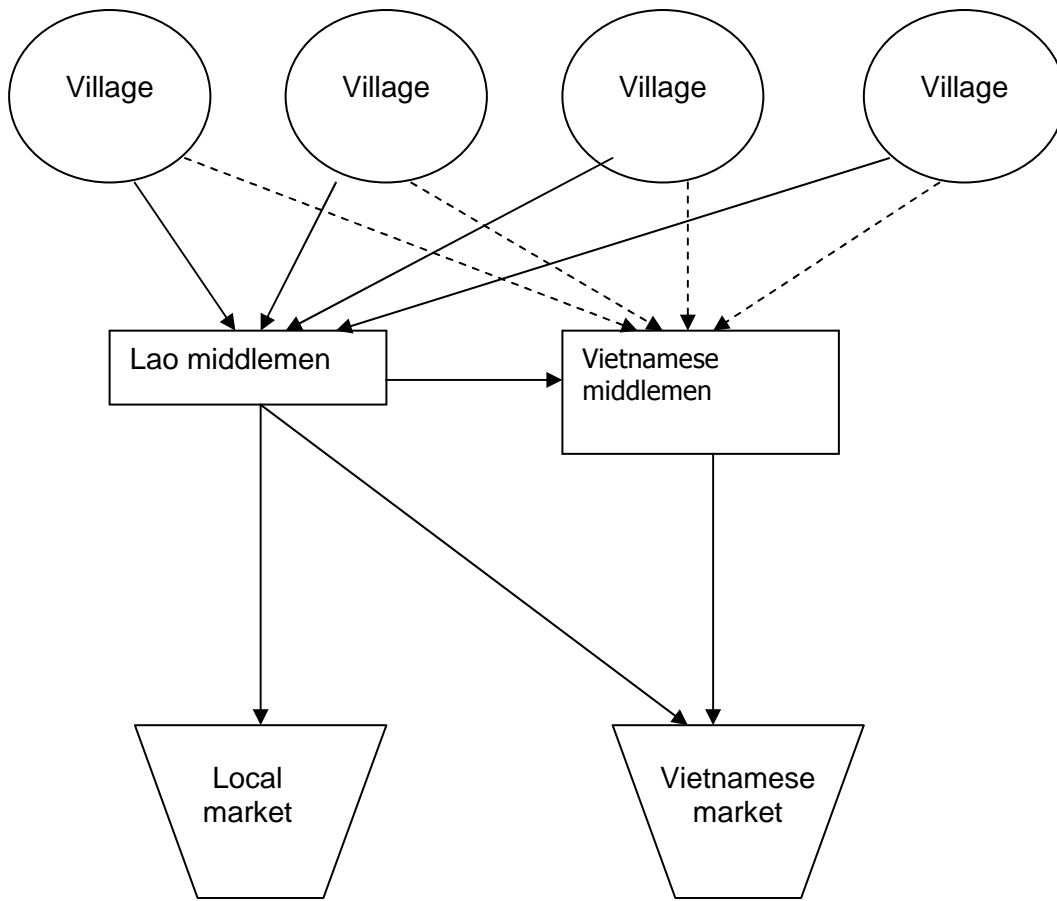
On this trip the team met with focus farmer groups in three villages (Nongbouathong, Donemy and Nongvilay). In the meeting, the provincial team with assistances from project discussed about forage technologies, especially about forage varieties that may adapt well in the areas, the benefits and utilization of the varieties. These varieties are: *Andropogon gayanus* cv. Kent, *Brachiaria brizantha* Marandu, Brachiria Hybrid Mulato, *Panicum maximum* Simuang and *Stylosanthes guianensis* CIAT 184. In addition to forage varieties, farmers have also raised the question about goat management and health issues, especially parasite for kids and also weight loss during the wet season (in particularly heavy rain period).

The team then made a plan with farmers for land preparation and planting time with the aim that farmers can start planting forages in the beginning to middle of June.

### **Collect information of goat market**

To prepare for market study, which will be conducted at the end of this year, the team went to collect the basic information about goat marketing in the province with focusing on the districts that are located along with National Road No. 9 to Vietnamese border. These areas are famous with goat production because of attractive price and demand from both local and Vietnamese markets.

The team went to meet with the goat farmer groups in each village where the discussion was focused more on the market systems and how do farmers sell their animals. The market system has been identified by farmers are as the following:



Farmers have said that the only problem for them is not enough animals for sale, as many of them explain that to raise the goats to the preferable market weight takes almost one year under traditional raising ways.



## **Manolo Fortich, Bukidnon, 31 May-6 June 2004**

Francisco Gabunada Jr. and Jindra Samson

### **Objectives**

- Initiate site activities for the year in coordination with the country coordinator
- Finalize country workplan for the Philippines with the country coordinator

### **Itinerary**

01 Jun	Arrive Cagayan de Oro (F Gabunada and J Samson)
01-02 Jun	Visit Manolo Fortich
03 Jun	Meeting with collaborators from Cagayan de Oro
04 Jun	Meeting (Ed, Jindra and Papang)
05 Jun	Meeting with Judith (J Samson departs for Los Banos)
06 Jun	F Gabunada departs for Los Banos

### **Persons Met**

Eduedo Magboo, LLSP Country Coordinator- Philippines  
Ernesto Ducusin, Municipal Agriculture Officer, LGU-Manolo Fortich, Bukidnon  
Mar Remotigue, Municipal Agriculturist, LGU-Manolo Fortich, Bukidnon  
Gemma Cana, Agricultural Technician, LGU-Manolo Fortich, Bukidnon  
Cynthia Velasco Agricultural Technician, LGU-Manolo Fortich, Bukidnon  
Perla Asis, City Veterinary Office, Cagayan de Oro  
Rey Dapanas, City Veterinary Municipal Agriculture Officer, LGU-Malitbog, Bukidnon Office, Cagayan de Oro  
Jerome, City Veterinary Office, Cagayan de Oro  
Judith Saguinhon

### **Activities and Outcomes**

#### **(1) Visit to Manolo Fortich**

The site for the small experiments and farmer field school will be at sitio (hamlet) New Sankanán in Barangay (village) Sankanán. This sitio has a multi-purpose cooperative that has benefited from the dairy cattle grow-out scheme of the National Dairy Authority. The scheme involves the NDA dispersing a yearling female Brahman-Friesian crossbred to interested farmers. The farmer will be paid a fixed amount by the NDA once the animal is pregnant. In addition, the farmer gets first priority if he is interested to continue raising the pregnant animal in a dispersal scheme (he will have to repay with the offspring). To date, the cooperative has availed of 24 cattle under this scheme (17 early this year and another 7 in April). In addition, the cooperative also obtained 13 goats from a project of the local government unit. The main reason why the farmers get this support is because they have planted quite large areas to forages.

From the collaborating LGU, Ms. Cynthia Velasco and Ms. Gemma Cana are the staff with the main responsibility for doing the LLSP activities with the farmers. The LGU has been very supportive and has committed other staff to pitch in if the need arises.

On the first day of the visit (June 1), details on the conduct of small experiments and the farmer field school were discussed with the LGU collaborators. The relationship among the two was stressed. The main point was that the small experiments will be used by the FFS as basis for learning. As such the FFS participants would need to visit the small experiments as part of the FFS sessions.

For the FFS, the main point to consider in delivering the topics is that they must be light, cheerful and interactive. The ambiance has to be open (allowing participants to express their ideas), field-based (less of the classroom but more of the field) and practical (less of theory). Cynthia and Gemma (the Extension Workers assigned in the area) already had experience in conducting FFS in corn. As such, they were a bit confident in the methodology. However, Ed stressed that one major difference between the corn FFS and the FFS that is planned is that farmers will not have a common field for their experiments; rather, they will be encouraged to apply what they have learned in their own farms.

Moreover, it was stressed that the major role of Cynthia and Gemma in the FFS is facilitating farmers to discuss and share each others knowledge on the topics. Thus, lecturing should be avoided. Rather, active listening and facilitating discussion will be the main activity. These are skills that can only be gained with practice.

It was agreed that a typical session would consist of the following:

- a) Opening Prayer
- b) Games and Mind Setting Activities
- c) Recapitulation
- d) Introduction of Topic for the Day
- e) Execution of the Module / Topic
- f) Synthesis
- g) Plan for the next meeting
- h) Closing Prayer

A meeting was with the farmer group conducted on 02 June 2004. The idea of the FFS was presented to the farmers. Commitment and schedules were made during the meeting. The FFS schedule was agreed to be done every first and fourth Wednesday of the month. The first session will be on June 30. Each session starts at 8AM and will last between 2 to 3 hours.

Four farmers have already signified willingness to join in the small experiments. A meeting with these farmers was scheduled in June 7. The purpose of the meeting is to decide what experiments will be conducted with the farmers. Details on how to conduct and make measurements will also be discussed and agreed with them.

In the afternoon of June 2, the LGU collaborators were met again to decide on the topics for to be taken in the FFS. The first session on 30 June will be on commitment building; which

includes establishment of house rules and agreement on acceptable norms/attitudes of the trainees.

Succeeding sessions shall cover the following topics:

- a) amount of feed required by animals
- b) feeding trough design and other ways to avoid feed wastage
- c) water requirement of animals
- d) effect of stage forage growth on utilization as feed

It was also agreed that values formation exercises will be integrated into the FFS. This will be integrated into the portion on games and mind setting exercises.

To help with the FFS, the need for picture stories was felt. This area would be one where the LLSP management could help. Pictures related to the above topics can be printed and used as posters for farmers to discuss during the FFS.

Regarding the experiments, the sites and Ed are still not very sure about experimental design and treatments. Help is likewise required on this aspect.

## **(2) Meeting with Cagayan de Oro Collaborators**

The site selected in Cagayan de Oro is in sitio Tigahon at Barangay Dansolihon. A multipurpose cooperative exists in this sitio. Last year, the cooperative was able to obtain a portion of the senatorial fund. This they used to purchase breeder goats that were loaned to members. The members were to pay the cash value of the goat they availed. Since then, the farmers have started selling kids (less than 6 months) and started paying off their loans. Thus, the site aims to work on goat production system.

Ed and the site collaborators discussed the plans for the site. It was decided that Ed and the site collaborators meet with the farmers on June 10. The purpose is to validate the problems identified during the PD and plan out with farmers succeeding activities. The team will also have to assess whether it is appropriate to conduct FFS, as well as experiments, with the farmers.

## **(3) Meeting with Ed Magboo and Jindra**

A meeting was conducted with Ed Magboo and Jindra to assess what has been done so far and plan out succeeding activities.

Ed expressed two things that he was not sure of:

- a) details of the small experimentation – such as measurements
- b) what is the control for the experiments – would it be with or without; or before and after

It was agreed that the measurements will have to be done in consultation with the farmers. These measurements will be ones that farmers can do by themselves and would feel as practical indicators that the treatments produced different effects.

On the control treatment, it was agreed that this would depend on the nature of the experiment. With and without may be appropriate in some experiments while before and after could be appropriate for others.

There is therefore a need for feedback from Ed and the site collaborators once the experiments are decided.

Another support that is needed by the sites is for the conduct of the FFS. The need for picture stories was identified. This would come in the form of pictures that are relevant to the topics being discussed in the FFS (see #1). These would consist of pictures that portray both good and bad practices, which the farmer can compare, contrast and discuss.

The Letter of Agreement (LOA) likewise finalized with Ed during the meeting. Such will be emailed for comments of Werner; then finalized. The workplan will be refined based on the LOA.

#### **(4) Meeting with Judith Saguinhon (Malitbog Collaborator)**

The site for LLSP activities in Malitbog is at Barangay Mindagat. The focus production system is cattle for sale when the need arises. The objective of the activities in this production system was defined as : feeding to improve the body size while the animal is kept by the owner so that when the need arises, the owner can sell the animal at good price (as a fat animal).

Discussion was focused on how the activities can be started in Malitbog. The main decision was that the site will start establishing small experiments, followed by conduct of the farmer field school.

It was agreed that Ed will visit Malitbog the following week to finalize the plan with the farmers as well as the other staff involved in the activities.

## Cambodia, 6-9 June 2004

Phonepaseuth Phengsavanh

### Objectives

- Assist collaborators to work with farmer focus groups and helping them to plant forages.

### People met

Dr. Sorn San, LLSP National coordinator, DAHP  
Mr. Chea Socheat, Provincial collaborator, AHPO, Kampongcham province.  
Mr. Chim Si Mach, Technician, AHPO, Kampongcham province.  
Mr. So Phal, technician, AHPO, Kampongcham province.

### Itinerary

6 Jun            Vientiane – Phnompenh  
7-8 Jun        Field work in Kampongcham with local staffs  
9 Jun            Work with Sorn San and travel to Vientiane, Lao PDR.

### Summary

The trip was aimed to help provincial and district staffs to plan and work with focus groups of farmers in selected villages who will start to plant forage this year. The team has met first to discuss about important technical issue such as seed sowing rate, sowing deep, seed distribution and also plan for follow up. Then the team went to four villages (from eight selected villages for 2004) to discuss with farmers and demonstrate how to plant forages. There are five main species of *Andropogon gayanus* "Gamba", *Brachiaria brizantha* "Marandu", *Brachiaria decumbend* "Baselisk", *Brachiaria hybrid* "Mulato" and *Stylosnathes guianensis* "CIAT 184" were introduced to farmers this year.

#### **Meeting with local staffs:**

The team met in the provincial animal health and production office to discuss about technical issues of planting forages with farmers and planning for follow up. The meeting was started with technical issues of:

#### *Technical issues*

##### (1) Seed preparation and distribution

The discussion about the seed preparation and distribution was focused on how to keep seeds alive in both before contributing to make sure that farmers get good quality seeds, and after distributing to farmers, because farmers often are very busy with other works in the farms and left the seeds in unsuitable conditions which make the seeds die before planting.

##### (2) Planting deep and sowing rate

The sowing rate and planting deep were also discussed in the meeting. In first time, staffs often use very high sowing rate that will cause weak plants and also waste of the seeds. Another problem that might occur during planting time is planting deep, as staffs get used to plant other crop seed quite deep, so it is important for them to understand that forage seed is small and if the seeds are planted deep, they will not be able to emerge and die.

### *Planning for follow - up*

The team has discussed about the follow up activity, especially in establishment period. Three visits to farmers have been planning: (1) One week after planting, to check the germination of forages and find out the problems for low germination, so staffs can overcome the problems in time. (2) One month after planting, to suggest to farmers about early weeding to encourage growth of forages. (3) Cutting time, this visit is aimed to provide some information about cutting management and also utilization of forages.

These are main planned follow up for the next three months, however, staffs may need to go there more depending on the real needs for helping farmers.

### **Field work in the villages:**

The team went to three villages, one in each district (Talleav village, Kounkang commune, Ponger Krek District, Trapang Rung village, Sosen commune, Prey chor district, Maing Ngo village, Krala commune, Kampongsea district) to demonstrate how to plant forages.

There are five main species of *Andropogon gayanus* "Gamba", *Brachiaria brizantha* "Marandu", *Brachiaria decumbens* "Basilisk", *Brachiaria hybrid* "Mulato" and *Stylosanthes guianensis* "CIAT 184" will be given to farmer to evaluate and use in their farming systems.

The team has organized a short meeting with focus group of farmers in each village to explain about the importance of forage planting and early management. After that the team has demonstrated how to prepare the seedbed and planted the forages with about 6 farmers (Two in each village) then the rest of farmers will do by themselves.

## **Tuyen Quang and Daklak Provinces, Vietnam, 6-21 June 2004**

Francisco Gabunada Jr., Werner Stür, Jindra Samson,  
Phonepaseuth Phengsavanh, John Connell

### **Objective**

- Conduct a follow-up workshop on forage dissemination methodology in Vietnam
- Mid-year Project Management Meeting

### **Itinerary**

07 Jun	Arrive hanoi (FGabunada and JConnell)
08 -11 Jun	Dissemination workshop in Tuyen Quang Province
12 Jun	Back to Hanoi
13 Jun	Arrive Daklak Province
14-16 Jun	Dissemination workshop in Daklak Province
17-20 Jun	Mid-year Management Meeting
20 Jun	Depart for Laos (JConnell), Australia (WStür)
21 Jun	Depart for Manila (FGabunada)

### **Persons Met**

Le Hoa Binh, LLSP Country Coordinator- Vietnam  
Vu Hai Yen, Tuyen Quang Province  
Lam Van Suat, Dept of Ag. And Rural Development, Yen Son District  
Vu Anh Dung, Extension Staff, Son Duong District  
Vu Thi Huong, Ag. Extension Department, Yen Son District, Tuyen Quang  
Truong Thanh Khanh, Tay Nguyen University, Daklak Province  
Mr. Ha, Ag. Extension Department, Ea Kar District, Daklak  
staff from Extension of Ea Kar District  
1 EW of commune in Ea Kar District  
farmers from Ea Kar District and M'Drak

### **Activities and Outcomes**

#### **(1) Dissemination workshop in Tuyen Quang Province**

The workshop yielded details on the forage technology dissemination process at Tuyen Quang Province. The local collaborators were able to successfully enhance farmer adoption through their promotional activities. In addition to this, there were external factors like enforcement of the Forest Protection Policy as well as the establishment of dairy farms. These further enhanced forage adoption and expansion.

However, the main observation was that impressive forage adoption occurred in villages which were more intensive. In these villages, farmers themselves contributed a lot to the

adoption. In villages that were more extensive, more activities have to be done by the extension workers to enhance the adoption process.

There were also villages which have already reached a plateau level in terms of forage adoption. These were villages where farmers have already attained what they expected from forages (e.g. save labour for feeding). In these villages, there is a need for consolidation activities (extension workers review with farmers what level they have attained; then extension workers can try to identify if there are farmers who are willing to move farther than where they are now).

Another important finding was that there was a need to do activities aimed at obtaining feedback from farmers. For instance, there were species that were discarded (not selected, e.g. legumes) by the farmers in the early stages. Now that farmers have solved their initial problem of lack of feed (using the grasses they initially selected and expanded), farmers have started to recognize the need to find more feed especially in the dry season. This niche could be filled in by the legumes that they initially discarded.

## **(2) Dissemination Workshop in Daklak Province**

The workshop revealed more details on the forage dissemination in Daklak Province. A trend in forage adoption similar to Tuyen Quang was observed. Forage adoption and expansion was faster in intensive agriculture areas. In Ea Kar District, the external contributory factor identified was the decrease in prices of coffee. In this district, farmers were observed to be more enterprising and have considered cattle as a commodity for income generation. In this district, farmers did not start with forages because of a problem; rather they started because they saw the opportunity of raising cattle if they planted forages.

This situation was in contrast to a not so active site in M'Drak District. This area was extensive. However, the farmers in this area were raising more cattle per household than Ea Kar. Cattle raising has been a traditional practice in the area. The main feed resource was the naturally occurring communal grasslands. Farmers have felt the problem of dwindling feed resources. However, they might have just accepted the situation as a natural occurrence and therefore did not really pursue towards forage adoption and expansion.

In the not so active village at M'Drak, the farmers started out with a cross-visit to another commune. A lesson learned was that farmers usually choose the best looking species that they see. However, this good-looking species may not perform really well throughout the year; or it may not be adapted to the new area. Thus there is a need for the extension worker to be able to inform the farmers on the difference of their situation from that of the area being visited.

In Ea Kar district, the extension workers are now going to the extent using mass media (TV programs) in reaching out to farmers. Farmers themselves approach the extension workers, who then provide farmers information on where to buy planting materials.

Very similar to Tuyen Quang, the following need to be done in Daklak Province:

- a) obtain feedback from the farmers (information on second generation problems and where farmers want to go are important); and



- b) there is a need to find a way of getting a reserve forage germplasm which could be provided as options for farmers to solve second generation problems.

### **(3) Mid-year management meeting**

The status of activities in the different collaborating countries was discussed. This was used as basis for formulating a list of activities to support the collaborating countries.

Each component of the LLSP was also discussed. Activities to support the attainment of the components' objectives were identified.

All the countries are on the way with their activities. The activity which most countries need a lot of support is in the testing of options (small experiments) to improve the animal production system. This is the aspect which everybody seems to be new at.

A proposal to hold the next annual meeting in Daklak Province was floated around. The major reason for choosing the area in that the participants would be able to see how well forage adoption and use has been in the province.

## **Daklak, Vietnam, 21 June-1 July 2004**

Jindra Samson and Phonepaseuth Phengsavanh

### Objectives

- To attend LLSP management mid-term meeting
- To brainstorm on the previous market study and conduct planning
- To conduct phase 2 of the Daklak Market Study

### People Met

Dr. Truong Tan Khanh, LLSP Daklak coordinator

Ea Kar, District:

Mr. Nguyen Van Loc Chairman, People's Committee

Mr. Dung, V-Chairman, People's Committee

Huynh Quang Pho, Head of Economics Department

Nguyen Thi Hien, Manager of the Bank of Investment

Nguyen Dang Son, V-manager of Agri. and Rural Development Bank

Mrs. Hue, Manager of the Bank of Policy

Mr. Ha, Head of Extension in Agriculture

Mr. Dung, Agriculture Office

M'drak District:

Mr. Le Van Thieu, Head of Extension in M'Drak Province

### Groups Met

Traders group from Ea Kar District

Farmers from EaKar and M'drak Districts

Extension officers from Ea Kar and M'drak Districts

### Itinerary

15 Jun	Travel from Manila to Ho Chi Minh City
16 Jun	Arrival in Boun Ma Thout to join LLSP Team
17-20 Jun	LLSP Management Meeting
21-29	Market Study
30 Jun	Depart in Boun Ma Thout to HCM
1 Jul	Data consolidation and report writing
6 Jul	Depart HCM for Manila

### Summary

A general review of the different country activities was made. The review helped the LLSP team to assess each country's progress and discuss plans in conducting future activities for 2004. The team has level-off ideas on how to operationalize the project's M&E. It was agreed on that project's M&E should be started in the next 6<sup>th</sup> month in order to start the collection of information which will be monitored and reported by LLSP. Some general strategies were discussed but will need more planning for its implementation.

The initial activities and output generated from the first Daklak market study were presented to the LLSP team. The brainstorming session by the LLSP team generated ideas and identified possible 'action options' that can be used as part of the iterative planning of the market study 2. The activities conducted in the market study phase 2 included (1) feedback meeting with the different stakeholders group like the traders, farmers and the authorities, (2) selection of interested people willing to work with the project and identification of potential focus sites and (3) formation of a stakeholder committee that will lead the planning and implementation of options to be identified in the future.

## **The details of the activities**

### **(1) LLSP Management Meeting**

A general review of the different country activities was made. The review helped the LLSP team to assess each country's progress and discuss plans for conducting activities for the remainder of 2004. Evaluation of the workplan activities and the needed support for each country were identified, leading to appointments of responsibilities and tentative schedules of travels for each LLSP team member.

The topic on M&E strategy was also discussed. The team has level-off ideas on how to operationalize the project's M&E. It was agreed on that project's M&E should be initiated in the next 6<sup>th</sup> month in order to start the collection of information to be monitored and reported by LLSP. Some of the main ideas generated during the discussion were: (1) M&E should be used as a tool to generate feedback to help local partners to effectively implement project activities and improve planning of future activities. The team feels that the project is able to do this through visits and continuous support in the planning of activities with the coordinators. However, the team finds it relevant to bring this type of support and feedback information to help farmers work and plan better. (2) M&E will be used by the project to monitor progress of activities based on the performance targets in the project log-frame & reporting of project impacts to donor and other stakeholders. One way of doing this is to have series of workshops and periodic meeting to review programs, reflect on the progress of the activities and discuss the positive and negative results. (3) M&E should monitor not only the project activities but as well the human resources (people) involved in the project. Get to recognize also how the project creates impacts for their development. Some general strategies were discussed but LLSP M&E will need more planning for its implementation.

### **(2) Market Study Planning, Activities and Outputs**

Figure 1 shows the step by step activities conducted in the market study phase 2.

#### *LLSP Group Meeting and Planning*

The initial activities and output generated from the first Daklak market study were presented to the LLSP team. The team assessed the methodology used and learnings derived from the initial study in order generated ideas and identified possible 'action options' that can be used as the next step of the market study. One of the major highlights of the discussion was the identification of several methods/options which can be used for certain output 4 related

objectives (please refer to table below). Some sites such as Lao, Philippines and Indonesia were identified to be potential sites ready to conduct output 4 activities.

Output 4 Objectives	Methods/ Options	Actions
1. Motivating farmers interest	Market chain Study Tour	Step -1
	Experimentation	Step -2
	Cross-visit	↓
	PD	Step -N
2. Group formation among market-chain players (traders,farmers, authorities)	Market Study ex.Daklak	Step -1
	Discussion and Meetings	Step -2
		↓ Step -N
3. Getting farmers to discover market opportunities through production	Experimentation on animal productivity	Step -1
		Step -2
		↓ Step -N
4. Get information on the impact of forage/animal production	Economic study	
	Case study	

The plans in the next stage of the market study included (1) feedback meeting with the different stakeholders group like the traders, farmers and the authorities, (2) selection of interested people willing to work with the project and identification of potential focus sites and (3) formation of a stakeholder committee that will lead the planning and implementation of options to be identified in the future. It was also agreed on that a summary matrix indicating the major constraints and opportunities (in the production and marketing) identified by all the players should be developed side by side with the action-options. This matrix would serve as a tool to guide the stakeholder committee to define objectives and planning of their activities. The team also discussed about some output 4 approach for other sites in which activities or methodological approach depending of each site

#### *Feedback Meeting with the Different Players*

There were three feedback meetings conducted for each player group (traders, farmer and authorities). Each player was met in a separate meeting to present the results of the initial market study conducted in December 2003. Extension officers from Ea Kar were involved to observe in the meeting and learn from the discussion. A power point presentation of the overall study was made by the LLSP, highlighting the different perspectives of the three players and the analysis made by the project. Each meeting started with the presentation first, then followed by a discussion of the issues. Along the discussion, the information were validated and updated. The participants were also asked to react on the ideas of the other players regarding the issues of constraints, opportunities and solutions identified in livestock production-marketing. There were new issues and information discussed in each session with the different players. Through a brainstorming session, more ideas and suggestions were generated from the participants leading to a discussion on how these ideas can be implemented as options to test to overcome the constraints of livestock production to marketing.

The participation from each player were very active, farmers were already suggesting that they try out production options very soon, while traders have expressed their willingness to train farmers in cost and animal weight estimation. There are even traders willing to provide capital and work out partnerships with farmers who can provide regular supply of animals for them. While the authorities have expressed that they are willing to act as support and provide access on services like credit to farmers who will be involved in the project. The LLSP team felt a positive feeling towards the outcome of the meeting because it has resulted in the generation of interest and positive feedback from the different players who have expressed their desire to be part of the study. The stakeholder committee was discussed with each group, and each group have selected volunteer/s to be part of the committee. The date for the first stakeholder meeting was set last June 26, 2004. Ideas on focus sites were also established at this stage based on the willingness of farmer leaders who wanted their commune to be part of the activity. Communes identified include Ea'O, Ea Da and Cu Ni.

In summary, these are the output of the meeting.

Problems	Solutions	Opportunities	Actions
<b>Traders</b>			
<ul style="list-style-type: none"> <li>Farmer always ask for very high price</li> <li>Do not exactly know about the price. Always changing</li> <li>Lack of capital</li> <li>Lack of place where to buy &amp; to sell</li> <li>Very few number of cattle buying (farmers want to keep their cattle for increasing number of cattle)</li> <li>Farmers lack knowledge/technology to raise good quality cattle</li> <li>Access to capital by-traders can borrow from the local bank, but the loan is not enough for them to buy a lot of cattle in order to have substantial benefit for them. They also find it difficult to borrow from the bank</li> </ul>	<ul style="list-style-type: none"> <li>If farmers have the capital &amp; the capability/knowledge to raise good quality animals, then possibly they can keep the best breeder to produce more calves.</li> <li>Traders think that the authorities should support them by developing good policies / projects where both farmers &amp; traders can buy &amp; sell (trading place)</li> <li>The authorities should provide easier access to capital to help the farmers &amp; the traders to buy animals</li> <li>Improve knowledge of farmers in managing the cattle and its production so that the traders can buy more improved type and increase the number of animals to fill the demand of the market</li> </ul>	<p>Demand for cattle higher than the supply because</p> <ul style="list-style-type: none"> <li>- lack of capital</li> <li>- lack of technology</li> <li>- farmers keep the thin animals for their use</li> </ul> <ul style="list-style-type: none"> <li>Traders are willing enough to discuss possible solutions with the different players.</li> <li>There are some companies &amp; traders who are willing to lend capital to farmers, so that they can benefit together.</li> </ul>	<ul style="list-style-type: none"> <li>Stable price</li> <li>Improve market information through extension officers training farmers on how to measure the weight of the cattle</li> <li>EW train farmers how to recognize the breed / quality / type of cattle</li> <li>EW bring together farmers &amp; traders to discuss &amp; understand each other about buying &amp; selling of cattle</li> <li>Develop the production (raising) of the cattle in the village</li> </ul>
<b>Farmers</b>			
<ul style="list-style-type: none"> <li>Price of cattle for breed is high, farmers cant afford to buy enough</li> <li>Farmers don't know how to measure weight of cattle</li> <li>Farmers would like to</li> </ul>	<ul style="list-style-type: none"> <li>Establish a market place for cattle</li> <li>Provide studies to bring information on the market (in general)</li> <li>Organize a group of people who are interested to raise</li> </ul>		<ul style="list-style-type: none"> <li>Train the farmer about the technology ( Animal health, Nutrition, Production/Breeding, forage technology)</li> <li>Train and guide the farmer to make plans</li> </ul>

Problems	Solutions	Opportunities	Actions
<p>know the prices (when is the highest &amp; lowest) on different times of the year</p> <ul style="list-style-type: none"> <li>• Lack of feed for cattle</li> <li>• Farmers don't know how to buy good quality cattle</li> <li>• Farmers find it difficult to look for good quality cattle to be used for breeding</li> <li>• Lack of the plan of raising cattle in the family</li> <li>• Farmers find it difficult to forecast the price</li> </ul>	<p>cattle</p> <ul style="list-style-type: none"> <li>• Train farmers how to measure the cattle, how to get the weight of the beef</li> <li>• Help the farmer to sell the cattle by using a scale for basis of weight</li> </ul>		<p>on how to raise better cattle, suitable quantity of animal, amount of feed needed, types of feed, animal health &amp; animal housing, etc.</p> <ul style="list-style-type: none"> <li>• Train farmers to make plan to compute for economics, timing to raise &amp; sell in order to have higher economic benefit</li> <li>• Formulation of interest group of farmers for cattle production. So they can help each other to exchange the information on technology, market and get capital (credit)</li> <li>• Attend seminar on how to loan money from the bank and how to use the money to get benefits</li> </ul>

#### Meeting with the extension officers in the district

A half day meeting with the extension staff in Ea Kar was made. In this meeting, the results of the feedback activities were discussed. Extension staff were asked to comment and discuss their concern regarding the information given by the different players. Their ideas on the potential options or activities identified were assessed based on the capacity of the staff to provide support. They were asked regarding what support the extension office can offer in the plan of having a stakeholder group. Mr. Ha, being the head of extension, has showed very optimistic response for the activities identified and was willing to provide high support. He said that the extension office can handle very well the implementation of activities pertaining to the production and training aspect. He affirmed that the interested farmers who have offered their sites were all good sites for the project to operate, and that livestock activity are very promising in those communes.

The purpose of building up a stakeholder committee was explained to the staff. As an outcome of feedback meetings, a stakeholder group comprising 4 farmers, 1 trader, 1 representative from the bank, 1 extension officer (who will also be representing the authorities from Ea Kar District) and LLSP project were formed. The chairman and vice chairman of Ea Kar district and other officials have also expressed their support in the study and said that they will be looking forward to the output of the study to provide policies that would support the livestock raisers and marketers in the district.

The Market Study 2 Activities

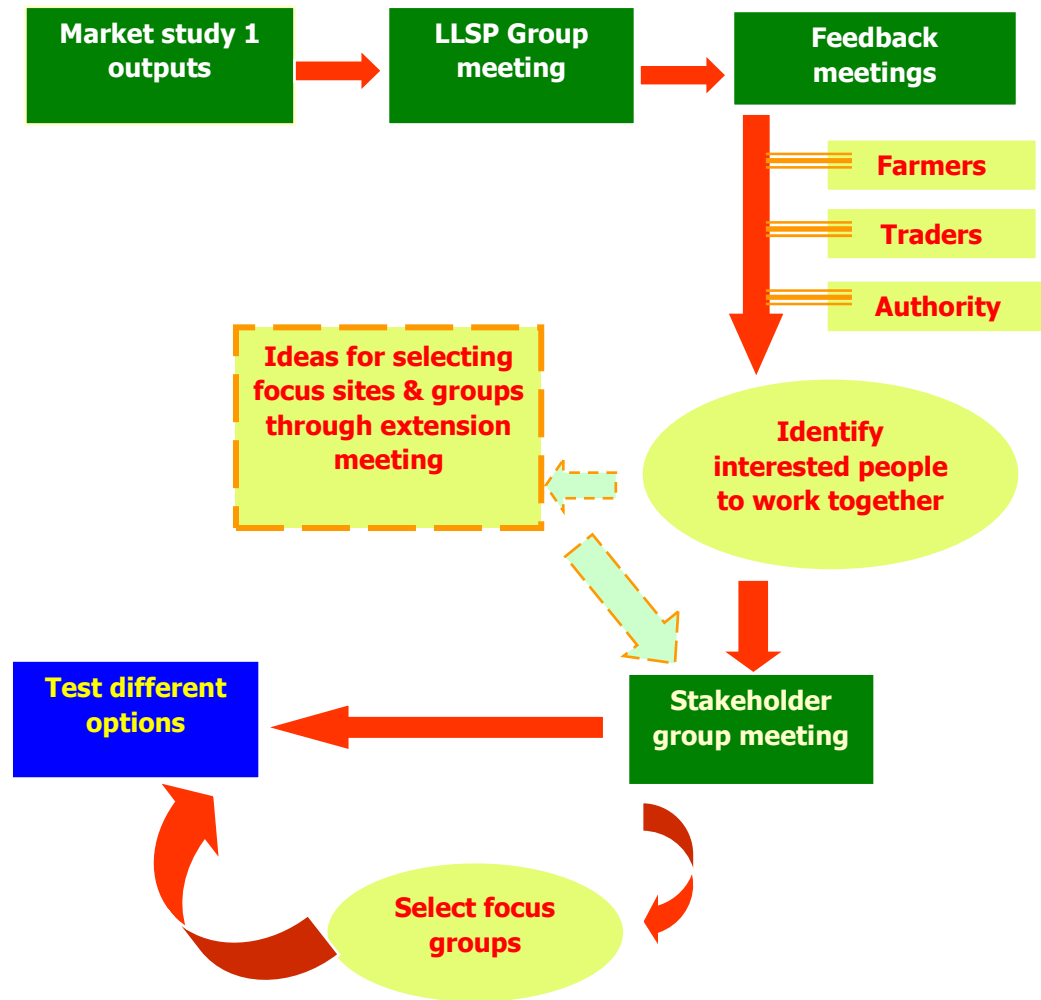


Figure 1: Process conducted in the market study phase II

Stakeholder group Meeting

The first stakeholder meeting was held in June 26, 2004 in the extension office of Ea Kar District. All individuals selected by the different player groups were present. The meeting started with an introduction of the members of the stakeholder committee. Each participant talked about their back ground and some ideas on what they can do for the group. The group selected an official name called '**Nhom Stakeholder**' which means---one group representing an organization, an individual who are involved in cattle production and consumption.

The LLSP team provided a brief introduction on the need of having a stakeholder group and how they are seen to lead the activities to help farmers and traders to improve livestock livelihood in the district. Expectations were clarified. The group discussed together to define

the purpose, objectives and functions of the group. Mr. Ha was elected to coordinate the stakeholder group. They have agreed to have a regular meeting of at least once a month to plan and implement activities, but in case that there is a need to meet more frequently the members are willing to devote time for it.

In the original plan, the first activity for the first stakeholder meeting is to discuss and analyze the output of the feedback meeting. But the plan was postpone because the stakeholder group concentrated first on identifying their roles and discussing how the group should function in the project. They agreed that the group should be formalized by registering and presenting the members and their roles to the People's Committee so that they will also be regarded as an official group in the area of livestock. The LLSP team felt that it might be good to postpone the original activity for the second meeting so as not to interfere many ideas that are being discussed in the meeting. We also felt that the stakeholder committee still has to be oriented again on the purpose of the group so that they can better internalize their role as a stakeholder member. The next meeting will be on July 10.

#### *Members of the Nhom Stakeholder Group*

Extension/local government:	Mr. Ha
Bank staff in the interest	
Group commune:	Mrs. Hien
Trader:	Mr. Ta Van Hieu
Farmers:	
Ea Da Commune	Phan Dinh Xuan
CuNi Commune	Thai Xuan Quang
Xuan Phu Commune	Pham Van Khuyen
Ea Da Commune	An Tan Mai Nhiem
LLSP representation:	Truong Tan Khanh

## Conclusion

During the feedback meeting, many market information were discussed and noted. Information is one critical input identified for this market study and it will be a crucial input to the future decisions that have to be made by the stakeholders, that is why the project should find ways to collect and provide reliable sources of market information. A rapid market survey (RMS) by LLSP may be needed to confirm/clarify the information given out by the farmers & traders, and at the same time to obtain actual information on cost & pricing schemes on the different steps of the market chain. Aside from the information on prices, the term supply and demand of livestock were frequently mentioned – maybe it will be worthwhile to research on this so that we can have a reliable basis of information to share with the different stakeholders at times when they are needed. Dr. Truong Tan Khanh raised a suggestion to involve some students in Tay Nguyen University to help in the survey, but the RMS protocol will have to be designed and prepared by LLSP.

Having a stakeholder committee can be instrumental to achieve sustainability of the activities even after the LLSP project is finished. It is assumed that this group will continue the efforts started by the team to improve livestock livelihood in Ea Kar district and help interest groups to generate support from the local office. However, the project would have to entrust the



direction of the activities (perhaps also the outcome) to the decisions of this group, which would be very good in empowering the local, but should be guided by LLSP accordingly. As such, the 'time element' of this study will depend on how well or how efficient the SG plans the activities of the interest groups and how LLSP representative can be an effective facilitator. Almost all members of the SG are not so familiar with the participatory process. That is why there should be a strong effort from the LLSP representative to always be present in the planning meeting of the SG to guide the group on this principle. Having a person to represent the project also assures that the objectives of the project will be met.

There is a strong interest on credits by farmers and traders. It may be one of the solutions seen by the players, but also have a lot of repercussions which can give negative impacts when not address carefully (e.g. mortgage of properties). The SG should be careful about driving this interest too strongly. Ideally, they should try to promote first the improvement of the existing livestock resources/capital of the farmers/traders and teach them how to develop these without getting indebted on credit. Another way is for traders and farmers to work together to overcome capital constraints through contracts or agreements.

Note: More detailed report and analysis will be available in the Daklak Market Study paper.