ICRAF Collaboration in Lao-IRRI Phase 5/IUARP

July 2003 to December 2005

Final Technical Report

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Background

Since 1998, the World Agroforestry Centre (ICRAF) has been collaborating with partners in Lao PDR on upland agroforestry research and development activities.

At the invitation of the Lao Ministry of Agriculture and Forestry (MAF), an ICRAF team visited Lao PDR in September/October 1998 to explore priority areas for collaboration in agroforestry research and capacity building. Based on this MAF-ICRAF joint mission, it was agreed that Luang Prabang province would be the logical entry point for future collaboration. Moreover, it was agreed that ICRAF would support increasing Lao participation in regional training courses, workshops and the Southeast Asian Network for Agroforestry Education Network activities.

Moreover, the potential was recognized to further increase collaboration through the Lao-International Rice Research Institute (IRRI) upland component, the Integrated Upland Agricultural Research Project (IUARP), as well as the Sida-funded Agroforestry Support Project for Vietnam and Laos.

The main aim of IUARP is to develop sustainable upland livelihood systems through an integrated and participatory research approach. The target area comprises seven villages in Pak Ou district, Luang Prabang province in northern Lao PDR, representing a range of ethnic, socioeconomic and market conditions. An IUARP Implementing Team was formed in Luang Prabang, with members from NAFRI, the provincial and district extension offices and Lao-IRRI.

During the formulation process for IUARP, which was led by the Lao National Agriculture and Forestry Research Institute (NAFRI), the potential roles of national and international partners – including IRRI, ICRAF, CIAT, IWMI and ACIAR – were identified. The main roles envisioned for ICRAF were to:

- Provide planning, technical and financial support for agroforestry activities in IUARP villages;
- Enhance the research and development capacity of IUARP partners through training and related activities within and outside of Lao PDR; and
- Help link the IUARP team with other partners who have relevant agroforestry experience in Luang Prabang and elsewhere.

To enable ICRAF to better fulfill these roles, financial provisions were included in the Lao-IRRI project phase 4, supported by the Swiss Agency for Development and Cooperation (SDC), whereby US$ 40,000 per year (plus overhead) in funding was allocated to ICRAF for the period July 2000 through June 2003.

This collaboration continued during Lao-IRRI phase 5, also funded by SDC from July 2003 through December 2005. However, total available funding for ICRAF was reduced to US$30,000 (plus overhead) for this 2.5-year period to cover short-term consultancy inputs and related travel costs. Operational costs for IUARP agroforestry activities were supported by the budget managed by Lao-IRRI.

Thus, within the context of Lao-IRRI phase 5, ICRAF's role in IUARP focused on the following three areas:

1. Provide planning, technical, capacity-building and monitoring support for agroforestry activities in IUARP;

2. Attend IUARP Steering Committee and Technical Meetings in support of the above; and

3. Strengthen collaboration between IUARP and related ICRAF programs and projects (e.g., Sida-supported regional capacity-building program, LUSLOF, ICRAF-Chiang Mai).

Collaboration in 2003

During 2003, which bridged Lao-IRRI phases 4 and 5, ICRAF collaboration focused on:

- Support for integrated fruit tree systems, including the establishment of a "sucker bank" for pineapple planting material;
- Development of farmer nurseries, including the negotiation of fair prices for seedlings produced in these nurseries;
- Evaluation of intercropping vegetables and legumes in between fruit trees;
- Domestication of species that yield valuable non-timber forest produces (NTFPs) – rattan, cardamom, eaglewood and toutieng;
- Thinning trials for farmer-grown teak plantations;
- Capacity building support for farmers – training, meetings, cross visits;
- Partial support for researchers undergoing BS degree program at National University of Laos;
- Support for some operational costs of the Pak Ou District Agriculture and Forestry Office (DAFO);
- Support for the development of a participatory monitoring and evaluation (PM&E) framework and set of tools for information collection by farmers and staff;
- Publication support; and
- Support for IUARP coordination and management costs.

Collaboration in 2004

During 2004, ICRAF collaborated with IUARP on the following activities and processes:

1. Designed and conducted PM&E training for IUARP staff and farmers, held 3-8 February in Luang Prabang with inputs from Julian Gonsalves. Moreover, the IUARP PM&E framework was revised during this process.

2. Provided technical support for planning, implementing and monitoring agroforestry trials and demonstrations – including integrated fruit tree systems, domestication of NTFPs (rattan, cardamom, toutieng, eaglewood), teak management, cardamom and rattan in teak

thinning trials, improved fallows, sustainable farmer germplasm production strategies, and restoration of degraded forests.

3. Contributed to the documentation and sharing of some of the above technologies and processes. including participation in the NAFRI uplands workshop on shifting cultivation stabilization and poverty eradication, held in January in Luang Prabang.

4. Provided technical and training support for the development of a project GIS for IUARP – in collaboration with David Thomas, ICRAF-Chiang Mai, and with financial support from the ICRAF/Sida regional capacity building program.

5. Participated in IUARP Steering Committee and Technical Meetings held during May in Luang Prabang.

Collaboration in 2005

During 2005, the last year of Lao-IRRI phase 5, ICRAF collaboration in IUARP consisted of the following:

1. Participated in IUARP planning workshop held 7-8 February in Luang Prabang, in which the work plan for 2005 was reviewed and finalized by the IUARP Implementing Team. This was also the final IUARP meeting attended by Bruce Linquist, the Lao-IRRI Upland Agronomist based in Luang Prabang, as he had to relocate back to the U.S. for family reasons.

2. Provided technical and monitoring support to the Implementing Team during a follow-up visit to Luang Prabang conducted 31 July to 2 August. The purpose was to review the status of agroforestry trials and demonstrations – including integrated fruit tree systems, domestication of NTFPs (rattan, cardamom, toutieng, eaglewood), teak management, cardamom and rattan in teak thinning trials, improved fallows, sustainable farmer germplasm production strategies, and restoration of degraded forests.

3. Met with Gary Jahn, the new IRRI Representative for the Greater Mekong Subsystem, during 2-3 August in Vientiane to discuss status of IUARP and potential follow-on support and collaboration beyond Lao-IRRI phase 5.

4. Met with Gary Jahn and Sushil Pandey, Senior Economist, at IRRI HQ in Los Banos on 8 August to brainstorm on the key elements of a concept note for IUARP follow-on support. The concept note has been submitted by IRRI to SDC for consideration.

5. Drafted annual and final technical reports for ICRAF collaboration in Lao-IRRI phase 5 and IUARP.

Publications

The following papers were co-authored by Chun Lai, the primary ICRAF consultant for collaboration in IUARP:

- A paper on integrated fruit tree systems and farmer-based germplasm production strategies, presented at the uplands workshop organized by the NAFRI Lao-Swedish program during January 2004 in Luang Prabang:
    - Lai, CK, H. Sodarak, B. Keoboualapha and B. Linquist. 2004. *Integrated fruit tree systems in Luang Prabang: scaling-up of sustainable technologies and processes.* Pp 353-359 in: NAFRI. 2004. Proceedings of NAFRI Uplands Workshop on Shifting Cultivation Stabilization and Poverty Eradication. NAFRI, Vientiane. (http://www.nafri.org.la/document/uplandproceedings/29_fruitscaling_iuarp.pdf)

- A contribution for the sourcebook on upland livelihoods in Lao PDR:
    - Lai, CK, H. Sodarak, B. Keoboualapha and B. Linquist. 2005. *Integrated fruit tree systems.* Pp 35-40 in: NAFRI, NAFES, NUOL. 2005. Improving Livelihoods in the Uplands of the Lao PDR, Volume 2: Options and opportunities. NAFRI, Vientiane. (http://www.nafri.org.la/document/sourcebook/Sourcebook_eng/volume2/06_fruittree_iuarp.pdf)

- A contribution for the sourcebook on participatory research and development:
    - Linquist, B, B. Keoboualapha, H. Sodarak, P. Horne and CK Lai. 2005. *Upland research in Lao PDR: experiences with participatory research approaches.* Pp 58-65 in: Gonsalves, J *et al.* (eds). 2005. Participatory Research and Development for Sustainable Agriculture and Natural Resource Management: A Sourcebook. Volume 3: Doing Participatory Research and Development. CIP-UPWARD, Los Banos and IDRC, Ottawa. (http://www.cip-upward.org/main/AMC/snap-ins/DOC/DOC_DocumentsViewer.asp?DocID=417)

Lessons and Implications

Based on ICRAF's collaboration in Lao-IRRI phase 5 and IUARP, several notable lessons and implications emerged, including:

1. Usefulness and relevance of an integrated and participatory research approach in the Lao uplands. A participatory action research cycle – problem and opportunity analysis, village-level planning, farmer trials, and participatory monitoring and evaluation – is an effective process for designing, testing and adapting a wide menu of possible technologies and livelihoods in different Lao upland contexts.

2. Emergence of integrated fruit tree systems as a farmer-preferred technology. Of the 20 or so technology options tested, intensive fruit-based agroforestry gardens emerged as a viable and preferred option, providing farmers with annual, medium and longer-terms crops and income. Farmers saw fruit trees as a potential solution for generating income that could be used to purchase rice during shortfall months.

3. Shift to participatory on-farm research requires heavy investments. A much higher level of training and follow-up is needed for researchers, extension workers and farmers involved in this process. Participatory processes, such as problem diagnosis exercises, are highly time-intensive and sometimes difficult to properly schedule and implement, given the busy calendars of farmers.

4. Need to address farmer expectations. Participatory problem diagnosis and on-farm research can contribute to an increase in farmer interest and trust, but at the same time, also raise their expectations as to what the "project" can or should provide. This points to the need for researchers and farmers to jointly develop realistic expectations, as well as identify 'entry-point' technologies that can deliver early benefits to farmers (e.g., planting pineapple, establishing small fish ponds).

5. Viable pro-poor technologies remain difficult to identify. Wealth ranking exercises in the IUARP villages revealed categories of relative well-being among the farmers. The more "successful" farmers participating in IUARP activities tend to be from the "wealthier" category, particularly those who possess some paddy-growing land. For farmers in the "poorer" categories, the willingness or ability to take risks and try innovations is much lower. Thus, there is a need to focus on developing more pro-poor upland technology options in the future.

6. High potential for scaling-out IUARP approaches. In general, NAFRI and partners have looked upon IUARP favorably, and IUARP approaches have been adapted by similar programs and projects supported by Lao-Sida, Rockefeller Foundation and others in northern Lao PDR. It would also be worthwhile to explore the scaling-out of IUARP approaches to other Lao regions.

7. Good model of multi-agency and interdisciplinary collaboration. Within the IUARP context, it was extremely valuable to develop a consortium of national and international partners (including CGIAR centers), Lao research and extension agencies, as well as Lao specialists in a number of upland agriculture, forestry and allied fields. The Implementing Team in Luang Prabang provides a good mechanism for advancing such collaboration. However, through various staff departures, study leaves, transfers and promotions, the overall capacity of the team was lowered toward the end of Lao-IRRI phase 5.

8. Sustainability of IUARP remains a challenge. Over a five-year period, IUARP has made considerable progress and contributed to innovations in terms of technologies as well as processes. With the completion of Lao-IRRI funding from SDC, which provided some support for implementation, NAFRI will need to develop feasible strategies to ensure that useful IUARP approaches can continue in the village cluster in Pak Ou district, as well as be scaled-out, where relevant, to other upland situations in Lao PDR.

Budget

During July 2003 to December 2005, the actual ICRAF expenditures from the Lao-IRRI phase 5 budget provision for collaboration in IUARP were as follows (figures have been rounded off), thus leaving an unspent balance of approximately US$ 200 from the original budget allocation:

Category of Expenditures	***Approved Budget (July 2003 – Dec 2005)***	***Actual Expenditures (July 2003 - Dec 2005)***
Short-term consultancies	23,000	21,500
Travel	7,000	8,300
Overhead (13%)	3,900	3,900
Totals	**US$ 33,900**	**US$ 33,700**