



Booklet for the
International Conference on

Sustainable Sloping Lands and Watershed Management

Linking research to strengthen upland policies
and practices

December 12 - 15, 2006
Luang Prabang, Lao PDR





**Conference Booklet for the International Conference on
Sustainable Sloping Lands and Watershed
Management: Linking research to strengthen upland
policies and practices**

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The recommendations of the study are as follows:

- Most of the smart farmers are men. It is recommended that more women farmers be considered, as they see different aspects of the problems and potential solutions for farmers.
- Mobile telephones should be used as an extension tool to aid communication and support the extension activities.
- The scale of extension activities should be appropriate to production capacity: most of those involved are small-scale rice farmers who plant not more than 4 ha (25 *rai*) per year, yielding a capacity of not more than 15 tonnes per annum.
- In line with the results of the study on the knowledge, skills and experience of smart farmers, the project training program should in the future place more emphasis on post-harvest technology, marketing, food processing and integrated pest management.
- The smart farmers show a good ability to work at high levels, but their knowledge, experience and skill on technology transfer was found to be lower than their other competencies. The researchers recommended increased focus on this area.
- Attention should be paid to sustaining the positive attitude of smart farmers to government policy, through frequent and continuous public relations work.
- As most smart farmers were found to be satisfied with their living and occupations but less satisfied with marketing and pricing, it is recommended that future development should be more concerned with marketing factors and other related market activities.

From Watershed Research to Agricultural Strategies in a Commune of Northern Vietnam: Local Knowledge for Natural Resources Management

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In spite of the green revolution of the 1990s, guaranteeing food security remains a challenge in large parts of the mountains of Southeast Asia. It is largely accepted that the most suitable farming systems for the uplands are based either on tree crops or mixed crop-livestock systems, both to manage the soil fertility and to maintain the soil in place. How can this be applied for a sustainable farming system? This project, from the *DURAS international program* to promote sustainable development in agricultural systems, aims to develop and enhance sustainable agriculture that makes the best use of: 1) the local knowledge and skills of farmers; 2) social capital - people's capacities to work together to solve common management problems; 3) nature's goods and services; and 4) public goods - rural jobs, clean water, flood protection, landscape quality, etc.

More specifically, the Vietnamese part of this project works specifically on a better understanding of local-knowledge implications from the disadvantaged communities living in mountainous areas through the spontaneous innovations of farming systems. Local participation has been strengthened along the research and extension processes by a case study: the introduction of fodder crop in the farming system. After completion and evaluation of the first round of fodder tests within experimental plots, on-farm tests have been conducted under farmer management for the most promising species. The farmers selected the fodder species (temperate and/or tropical), the planting place (upland and/or lowland) and the surface on which to cultivate. Interactions with farmers and local extension officers were initiated at the very onset of the project through a former project on watershed management (MSEC program). In addition, experiments and surveys of fodder crops (yield, harvesting and forage management, agricultural calendar etc.) were conducted in close cooperation with farmers in their own fields. Dissemination of the results of these two activities have after one year been greatly facilitated, not only at the village level but also at the commune level.

Thus, it seems that methodologies tested and developed by the project will contribute to an improvement of extension approaches for extension workers and local managers as well as to a better linkage between researchers, development agents and farmers. On the other hand, the project is also carrying out experiments on soil and water quality to improve water and soil fertility management at the watershed level, as well as an assessment of the productivity and nutritional value of tested fodder species and their seed production capacity in Southeast Asian mountain conditions. Based on knowledge gained during farmer meetings and experience from the experimental fields, farmers have already defined their strategy. They cultivate only tropical species in the uplands and temperate species in the lowlands, in keeping with scientific knowledge. During the first year, 2006, around 4 ha of forage have been planted; next year more than 20 ha will be planted with fodder. So, by involving village groups as participants, all arguments are mobilized for the successful identification, definition and extension of new agricultural practices for husbandry integration. Furthermore, effective dissemination can be expected in the future.