DEVELOPMENT OF FORAGE COMPONENTS THROUGH FARMER PARTICIPATORY RESEARCH

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ABSTRACT
This paper describes farmer participatory research activities aimed at developing appropriate forage technologies with smallholders in Southeast Asia. Farmers are actively involved from the early stages, working as equal partners with researchers. This has led to a better understanding of selected farming systems, identification of technologies that have potential for testing by farmers, and better understanding of the criteria farmers consider important for forages to be useful within those farming systems.

KEYWORDS
Tropical, forages, farmer participatory research, Southeast Asia

INTRODUCTION
Forage research and development in Southeast Asia in the past often involved a process where researchers evaluated introduced forages and selected those which have potential to contribute to the development of ruminant production systems. These selected forages and technologies were then given to extensionists to be passed on to farmers (Horne, 1996). Unfortunately, forages selected by this approach often failed to fulfill their potential from research evaluations and adoption was often very limited. This is especially true for smallholder farmers who were often ignored in the research process, except as "final recipients" of "developed" forage technologies. The lesson from these early failures is that successful forage technologies for smallholder farmers must not only be adapted to a particular environment but be compatible with and complement other farm activities (Horne et al., 1996). Active farmer participation has been recognized as a critical factor in the successful development of new technologies (Ashby, 1986).

This paper describes the participatory methodologies that are being used by the Forages for Smallholders Project (FSP) to develop forage technologies that are both adapted to and compatible with a range of farming systems in Southeast Asia.

FARMER PARTICIPATORY RESEARCH (FPR) METHODOLOGY
The approach used by the FSP actively involves farmers in all the main stages of research and technology development (Figure 1) and is based on the Farmer Participatory Research Methodology developed by the IPRA Projects, CIAT. This approach is being used in more than 20 communities in Indonesia, Laos, Vietnam, Thailand and the Philippines.

Commonly, when commencing a research partnership with farmers, researchers need to better understand farmers' perceptions of their agricultural systems and the constraints and opportunities they contain. As such, participatory diagnosis is the usual starting point of the activities. This involves farmers, as a group, identifying the limitations and possibilities they have in common.. The researchers take a facilitative role in the activity, using a range of well-known tools (including community mapping, calendars, transects and problem analysis) to allow farmers to identify and discuss problems and possible solutions and establish priorities for future action.

The results of the diagnosis are the basis on which communities and researchers can together plan trials to identify possible solutions to the common problems perceived by the community. Farmers themselves prepare, manage and evaluate the trials, giving feedback to the researchers about what criteria are important to them in making their evaluations. At this stage the researcher's role is to ensure that the trials are managed in a way that will give meaningful data, to provide neutral information about the alternative technologies and to encourage the farmers to freely express their opinions about the different technologies.

Forages identified through this process are more likely to be readily adapted and adopted by farmers as their needs have been integrated into the selection and evaluation stages.

The experience of the FSP has been that this methodology has great utility in empowering farmers to analyse their (often-complex) problems and identify actions that can be taken to overcome them. The example in Figure 2 is of a participatory diagnosis session on the problems related to raising livestock in Matalom village, Leyte, Philippines. The farmer group first identified the set of common problems they faced in raising livestock. This random list was then sorted in order of importance and the interactions between them identified. Next the farmers discussed each problem to identify what actions they had already taken to alleviate that problem. Encouraged by the many steps they had already taken, they finally reassessed each problem to see if there were any other steps they could take to improve the situation. The result is a clear summary of the current status of livestock rearing in that village which the farmers had developed, understood and owned. The whole process took two hours.

In this case the farmer group identified "better forage species" as an important step they could take to improve livestock husbandry. The researchers used this as a basis to suggest a range of forages which might fit into their livestock and cropping system. The farmers selected what they wanted to try from the options provided and plans for the trial were made.

By managing the trials themselves, farmers get a chance to observe and evaluate the forages tested. The researchers are able to use a range of well known tools (including open-ended, absolute and matrix ranking evaluations) to better understand the criteria farmers use when evaluating forage species.

Farmer Participatory Research methodologies have led to a better relationship between research/development workers and farmers. It is hoped that this, in turn, will result in improved adoption of forage technologies across a broad range of farming systems in Southeast Asia.

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Figure 1
Stages of farmer participatory research and development.

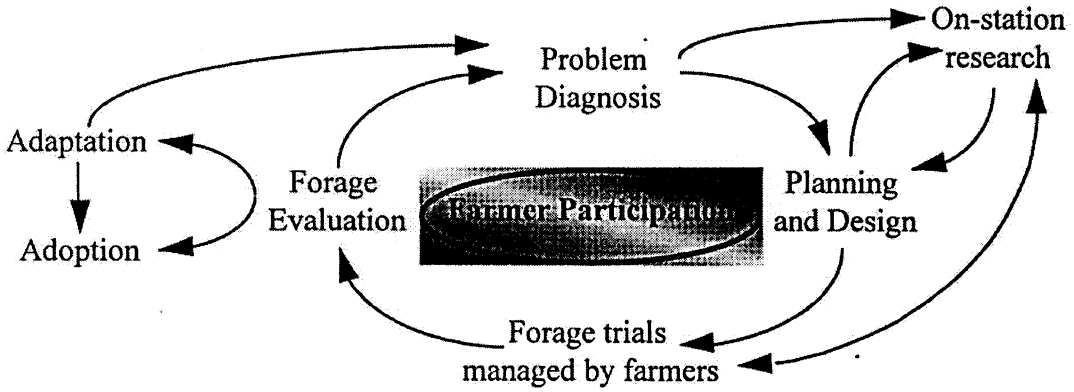

Figure 2
Feed resources problem diagnosis by smallholder farmers in Matalom, Leyte, Philippines