## The FSP in Vietnam – Where does it fit and what can it achieve?

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## Forage research and development in Vietnam

Vietnam is a small country (332,000 km²) with a population of more than 75 million. The pressure brought about by high population density and the ever-increasing need for cropland has resulted in a decrease in forests and grasslands, which are traditional grazing areas for cattle and buffalo. In recent years, the Vietnamese government has made structural changes in the agricultural economy, giving greater emphasis to livestock production. During a 10-year period from 1985-95, cattle number increased by 40% and buffalo number by 14%. The total contribution of livestock production to the national economy increased 66%.

The depletion of traditional grazing resources and the increase in livestock number imply a rapidly growing demand for alternative feed resources. What is needed are grass species with high yield potential for intensive production systems (such as *Pennisetum purpureum* and *Panicum maximum*), legume species such as *Stylosanthes guianensis* and *Leucaena leucocephala* to provide higher quality feed, and forage species for difficult soils and long dry seasons (such as some *Brachiaria* spp.).

The Forages for Smallholders Project (FSP) is working with partners in Vietnam to develop forage technologies for smallholder farmers. The main approach consists of:

- Introduction and evaluation of many forage species at different sites throughout Vietnam to identify those that are broadly adapted and have potential to solve farmers' problems.
- Use of participatory approaches to identify farmers' needs and to evaluate adapted forage species on-farm.
- Providing information on forage agronomy, management, and utilisation to development workers and farmers.

The National Institute of Animal Husbandry in Hanoi coordinates the FSP in Vietnam. The project is implemented in close collaboration with:

- Tay Nguyen University in M'Drak, Daklak Province.
- Hue College of Agriculture and Forestry in Xuan Loc, Hue Province.
- University of Agriculture and Forestry, Ho Chi Minh City in Binh Thuan and Ninh Thuan Provinces.
- Vietnam-Sweden Mountain Rural Development Project (MRDP) in Phu Tho, Ha Giang, Tuyen Quang, Lao Cai, and Yen Bai Provinces.

The activities carried out at each site are shown in Table 1.

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Site activity	Ba Vi	MRDP	Xuan Loc	M'Drak	Binh Thuai Ninh Thuai
Nursery evaluation	<b>✓</b>	-	<b>✓</b>	<b>✓</b>	-
Regional forage evaluation	-	<b>✓</b>	-	<b>✓</b>	-
Participatory diagnosis	<b>✓</b>	<b>✓</b>	<b>✓</b>	-	-
On-farm evaluation of forage	-	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Multiplication of forage seed	-	-	-	<b>✓</b>	-
FPR training course	<b>✓</b>	-	-	-	-
Agronomy training course	-	-	<b>✓</b>	-	-
Leucaena evaluation	-	-	-	<b>V</b>	-
Farmer training	<b>✓</b>	-	<b>✓</b>	<b>✓</b>	_

## **Future activities**

The FSP is planning to:

- 1. Conduct participatory diagnosis in Daklak and Binh Thuan provinces so on-farm work can begin this year.
- 2. Involve more farmers in testing forages at sites where the project is working.
- 3. Expand work to nearby villages at FSP sites.
- 4. Conduct regular participatory evaluation of forages at existing and new sites.
- 5. Introduce new species for specific purposes and areas (such as Setaria sphacelata cv. Solander for the northern regions, *Chamaecrista rotundifolia* for ground cover in fruit orchards, earlier flowering lines of *Stylosanthes guianensis* for the northern regions, and *Flemingia macrophylla* for fish feed).
- 6. Provide farmer training on forage production, management, and utilisation in Hue, M'Drak, and MRDP.