

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

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Introduction

As human population and income per capita increase, the demand for livestock products (meat, milk, and eggs) increases. The demand for ruminant meat (beef, mutton, veal, venison) is second to that for poultry. The ruminant population must increase to satisfy this demand. Consequently, the amount of feed produced for them must also increase.

Naturally occurring forages and crop residues barely satisfy the current demand by ruminant livestock. Additional forage must be produced. During the First Long-term Development Stage (1969 – 94), the Indonesian government, through the Directorate General of Livestock Services (DGLS), has tried to address this problem by introducing improved species of grasses and legumes, multiplying them in government stations, and then distributing these planting materials free to smallholder farmers.

Despite the efforts and budget put into the so-called Forage Intensification Program, there was very little adoption by farmers. The reasons for non-adoption include a shortage of species adapted to smallholder farming systems, low availability of planting materials, and lack of farmer involvement in the forage selection process.

Through a collaboration with the Centro Internacional de Agricultura Tropical (CIAT) and the Commonwealth Scientific and Industrial Research Organisation of Australia (CSIRO), the Southeast Asian Forage Seeds Project was implemented in East and Central Kalimantan, and at BPT-HMT Pelaihari, a government forage multiplication station, from January 1992 to December 1994. The project was funded by the Australian Agency for International Development (AusAID), and aimed to introduce and evaluate new forage germplasm, and distribute adapted varieties to smallholder farmers. Six broadly adapted forage species (*Andropogon gayanus* CIAT 621 or cv. Kent, *Brachiaria brizantha* cv. Marandu, *Brachiaria decumbens* cv. Basilisk, *Brachiaria humidicola* (several lines), *Centrosema pubescens* CIAT 15160, and *Stylosanthes guianensis* CIAT 184) were identified and recommended for on-farm testing.

In January 1995, a follow-on project, the Forages for Smallholders Project (FSP) started, also with funding from AusAID. This project built on the results from the previous project, taking up the challenge to develop forage technologies for smallholder farmers using a farmer participatory approach.

Organisation and collaborators

The executing agency of the FSP in Indonesia is the Directorate General of Livestock Services (DGLS). The activities in the field are carried out by provincial and district livestock services. The subject matter specialists (Penyuluh Peternakan Spesialis/PPS), field extension workers (Penyuluh Peternakan Lapangan/PPL) and field technicians guide, supervise, and monitor day-to-day activities in the field. The project also collaborates with the Assessment Institutes for Agricultural Technologies (BPTP) in North Sumatra and Nusa Tenggara Timur (NTT) in eastern Indonesia, Udayana University in Bali, and forage multiplication stations of DGLS.

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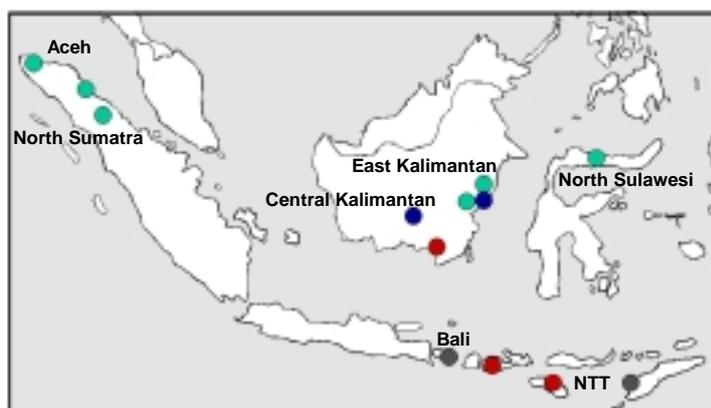


Fig. 1. FSP sites in Indonesia.

Sites of the FSP are located in several provinces (Fig. 1). These are in Aceh (grassland), North Sumatra (intensive sedentary upland agriculture and plantation), Central Kalimantan (rainfed lowland agriculture), East Kalimantan (extensive sedentary upland agriculture, rainfed lowland agriculture), and North Sulawesi (plantation and extensive sedentary upland agriculture). Additionally, the FSP collaborates with researchers in Bali and NTT in eastern Indonesia.

An overview of activities carried out at the FSP sites is shown in Table 1. They include regional evaluation of forages, farmer evaluation, multiplication of species, training, and seed production. Following a negative response of farmers during the participatory diagnosis stage, the activities in Central Kalimantan were limited to networking with technicians and PPL. To date, they are involved only in training and information exchange. Farmer evaluation of forages is being conducted at many sites. The local collaborators at each site are shown in Table 2.

Training of local collaborators (extension officers, development workers) in farmer participatory research (FPR) has been conducted in Samarinda and Sungei Putih. Training courses in forage agronomy are planned for Samarinda and Aceh in April/May 1998. Ir. Ibrahim received hands-on training in the Philippines in 1997.

Table 1. Activities at different FSP sites.

| Activity | Loa Janan, East Kalimantan | Makroman, East Kalimantan | Sepaku II, East Kalimantan | Kanamit, Central Kalimantan | Gorontalo, North Sulawesi | Marenu, North Sumatra | Pulau Gamar, North Sumatra | Saree, Aceh | Besakih, Bali | Kupang, NTT | BPT-HMT stations |
|------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------|---------------------------|-----------------------|----------------------------|-------------|---------------|-------------|------------------|
| Regional evaluation | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | - | - | - |
| Participatory diagnosis | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - |
| Farmer evaluation of forages | - | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
| Farmer training | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - |
| Expansion to other areas | - | ✓ | ✓ | - | - | - | - | ✓ | - | - | - |
| FPR training for field staff | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - |
| Government seed production | - | - | - | - | - | - | - | - | - | - | ✓ |

Farmer training in the form of field days, cross visits, provision of planting material, and lectures/discussions have been carried out at all sites where farmers are testing forages.

Table 2. Activities at different FSP sites.

| Sites | Collaborators |
|--|--|
| Blang Ubo-ubo, Aceh Besar, Aceh | Ir. T. Bustari, Ir. Mansur, and Mr. Ghozali Zainal (Livestock Services) |
| Marenu and Pulau Gambar, North Sumatra | Dr. Tatang Ibrahim, Ir. Tri Kingkin, and Mr. Rijanto Hutasoit, (BPTP), Mr. Radianto and Mr.Zulkifli Tanjung (Livestock Services) |
| Kuala Kapuas, Central Kalimantan | Dr. M. Taufiq. Ir. Arief Heriadi, and Mr. Said Hasyim (Livestock Services) |
| Loa Janan, Makroman and Sepaku, East Kalimantan | Ir. Ibrahim, Mr. Herianto and Tugiman (Livestock Services) |
| Gorontalo, North Sulawesi | Ir. Susilan and Mr. Idrus Labantu (Livestock Services) |
| Besakih, Bali | Prof. I.K. Rika, Udayana University |
| Kupang, NTT | Dr. Jacob Nulik (BPTP NTT) |
| BPT-HMT Pelaihari, South Kalimantan BPT-HMT Serading, NTB BPT-HMT Kabar, NTT | Staff of forage multiplication stations of DGLS |

Seed production and multiplication of planting materials must be carried out locally to make access to planting material easy for farmers. Vegetative propagation is often the preferred method by smallholder farmers. National seed production of the best varieties started at BPT-HMT stations in Pelaihari, Serading, and Kabar. This activity is fully funded by DGLS.