Profitable smallholder beef production in Vietnam

Forages - enabling system change and powering partnerships

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1) CONTEXT

- Since 2000, CIAT has worked with Tay Nguyen University (TNU) and local stakeholders to introduce forages in Ea Kar district in Daklak province, Vietnam.
- Smallholders operate 1-2 ha mixed crop-livestock farms. They grow coffee, maize, peanuts, cassava and fruit trees, and raise poultry, pigs, cattle, and fish in ponds. 32% of households raise cattle, which accounts for 40% of household income for families.
- Between 2000 – 2009, there was strong adoption of forages and cattle production changed from extensive, traditional cattle rearing to a market-oriented production system.
- This poster **explores the key events and partnerships that enabled this change to market-oriented cattle production.**

2) A CHANGING PROJECT FOCI

2000-2002	Evaluating and integrating forage options.
2003-2005	Improving cattle production through forage-based feeding systems and scaling out.
2007-2009	Improving livelihoods through forage-based, market-oriented cattle production and building innovation capacity for scaling out.

3) DEVELOPMENT OUTCOMES

- Adoption of forages increased from 20 households in early 2000 to almost 2,500 households by 2007 (Figure 1).
- The main forage species adopted were *Panicum maximum* 'Simuang' and *Pennisetum purpureum* 'Napier'.
- Farmers changed the way they managed and raised cattle, and a new production system emerged: cattle fattening (Table 1).
- For fattening, farmers bought a thin adult animal, fattened it for 2-3 months and then sold it for slaughter. Most farmers who fattened cattle kept them in pens and provided cut forages.
- 35% of farmers who raised cows to produce calves also fed forages.
- The breed of cattle raised by farmers gradually changed (Table 2). The proportion of native, yellow cattle declined from 80% in 2020 to 45% in 2007. Instead, farmers raised larger animals (Laisind and Crossbreds) to meet market demand for high quality beef in cities/markets. They now had enough feed from forages for large animals and could use artificial insemination as they penned animals.

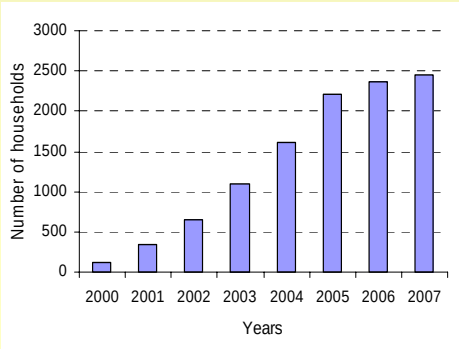


Figure 1. Adoption of forages

4) CHANGES IN R&D PARTNERSHIPS

- The simple and easily managed partnership at the beginning of the project in 2000 changed as the focus of livestock development changed to scaling out and became more system-oriented.
- In 2002, with a focus on forage research, only 4 key stakeholders made up a simple partnership (Figure 2).
- By 2007, the focus had changed from forage evaluation to improving cattle production and marketing systems and scaling out, and the partnership had evolved into a complex matrix with numerous development partners including farmer and women unions, cattle traders and agricultural banks (Figure 2) .
- The centre of interactions with stakeholders shifted from researchers to the district extension office.

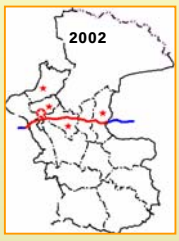
Table 1. Changes in the cattle production system (%)

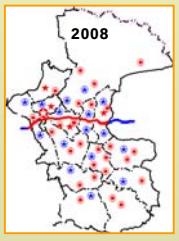
	2000	2007	
Cattle management	Traditional	Cow-calf	Fattening
Extensive - Grazing only	100	65	0
Semi-intensive - Grazing plus supplementary feeding at night	0	28	20
Intensive - Pen feeding	0	7	80

Table 2. Changes in the cattle breeds (%)

Cattle breeds	**2000**	**2007**
Local yellow	80	45
Laisind	20	40
Crossbred (Laisind x exotic)	0	15

Forage adoption





Stakeholder linkages

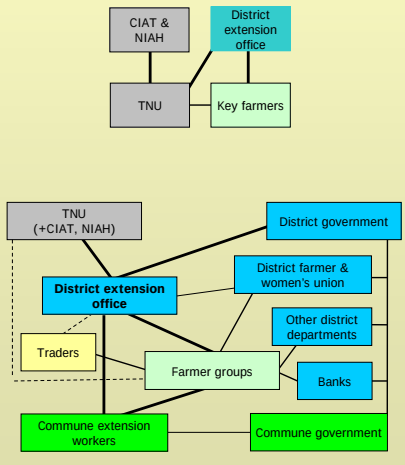


Figure 2. Complexity of stakeholder interactions, related to research and scaling out phases

5) LESSONS LEARNT

- This case study showed that a small research project with an effective, high-impact technology and an effective research and development partnership can contribute significantly to improving livelihoods of smallholder farmers.
- Forage technologies were the entry point for improving cattle production and enabled farmers to transform a marginal livestock production system into a profitable farm enterprise.
- A key ingredient was the compatible personalities of key people. Other key factors were excellent inter-personal relationships, trust among actors, a common objective and long-term commitment.
- Many stakeholders contributed to the successful outcome, and the stakeholder matrix grew in both number and complexity as the project moved from simple on-farm research to livestock development and scaling out.
- Researchers contributed significantly to the development outcome but their role and influence diminished with time; they were one among many stakeholders who influenced the final outcome.

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