A new ACIAR funded beef industry research project for Lao PDR

Outline
- Genesis ex BBHH
- Aims
- Outcomes
- Objectives, Activities
- Group Work

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Constraints to beef production...

1. transboundary & endemic disease; the health status is often extremely poor, reducing the value of sale cattle
2. nutritional deficits; remote communal grazing in the day and group village housing overnight, with dry season feed shortages leading to grazing & forage collection from distant locations (labour-intensive, time-consuming, disease risk)
3. supply becoming limited by almost complete absence of reproductive management
4. lack of understanding of markets & price information of meat, plus the quality of animals required, reduces smallholder ability to produce sale stock for premium prices

Genesis of a new project: A high priority for GOL

in-country consultation between ACIAR & GOL in mid-2012 concluded that a major research priority was development of new cattle/buffalo systems research project to improve ruminant production in response to developing markets

impetus came from success of AH/2006/159 'BBHH Large Ruminant Health and Husbandry, Lao PDR', completed end 2012; outputs continue to receive high level recognition

systems approach to investigating the most appropriate interventions to improve production, marketing and disease risk management

Outputs from BBHH completion workshop July 24-25, 2012

Group interactive session identified future research priorities:
- biosecurity education
- better use of laboratory diagnostics
- feeding management & conservation, silage and fodder trees
- additional parasite studies
- meat yield and quality
- examination of slaughterhouse processes
- breeding management including local breed selection
- promotion of group management among smallholders
- more collaborative learning opportunities for extension workers to build capacity
Project aims……

1. Support the development of large ruminant production systems in Laos in response to new market opportunities, changing land use and climate variability in the GMZ.

2. Research is needed to enhance the developing market chain for Lao smallholders in the developing consumer markets of Luang Prabang, Vientiane, Savannakhet (and importantly Hanoi in northern Vietnam), enhancing efforts to address local, national & regional biosecurity to facilitate this trade.

Project questions: how do we……

1. Improve health, production, biosecurity & marketing based on group management of cattle & buffalo with ‘quality assurance’, i.e. ‘step-up from animal keepers to managers of a product’?

2. Enhance better use of land & feed resources for large ruminants in response to intensification & plantation cropping, i.e. ‘new reality of managing livestock and crops’?

3. Provide most appropriate genetic improvement s including selection & breeding management interventions to match emerging intensive productions systems; is cross-breeding appropriate for cattle and buffalo in Laos?

Project outcomes predicted to be……

1. Effective pathways for improved health, production, biosecurity & marketing based on group management of cattle & buffalo with a price information mechanism & a pilot ‘quality assurance’ system to enhance a beef market chain.

2. Smallholder farmers with better understanding of land & feed resource use for large ruminants, able to achieve intensification & participating in new cattle & buffalo markets.

3. Institutional understanding of appropriate genetic selection & breeding management interventions, matching smallholder intensive productions systems & providing quality beef for developing urban & international markets.
Objective 1: Identify & develop health, biosecurity and marketing interventions that improve the large ruminant value-chain, including trial of group marketing and management of cattle & buffalo using a pilot ‘quality assurance’ system.

1.1: Identify stakeholders by workshops: in XK, XY, LB and SV.
1.2: Investigation of potential sites suitable for adoption of multiple interventions to improve large ruminant market chain
1.3: Implement baseline KAP survey & identify key traders & smallholders, describing market chain for transit & local animals
1.4: Design and implement disease-risk assessment strategy
1.5: List on & off-farm interventions that improve participation
1.6: Participatory workshops to identify preferences for interventions & capacity building needs & strategy
1.7: Implement capacity building & commence interventions & data collection that tests socioeconomic benefits and costs

Objective 2: Identify & address factors limiting smallholder participation in developing market opportunities, including adoption of better land-use & feed resources for improved large ruminant productivity.

2.1: Facilitate adoption of improved farm production & biosecurity activities, including preventative health and forages.
2.2: Promote development of a ‘clean market chain’ where stakeholders will expect to receive economic benefits from producing and trading cattle into the developing markets in Laos and Vietnam
2.3: Develop appropriate farmer, trader, livestock officer & university training packages & implement training programs that build to building capacity.
2.4: Monitor and evaluate ‘clean market chain’ interventions.
Lesson 1. Understanding of culture, history & large ruminant systems: options to improve

Objective 3: Establish the most appropriate genetic improvement & selection strategies plus breeding management interventions to match smallholder intensive production systems for large ruminant emerging markets.

3.1: Conduct a key stakeholder high-level workshop & review of current knowledge of genetic improvement and selection and breeding management interventions for large ruminants in Laos.

3.2: Facilitate adoption of improved farm reproductive management interventions & measure outcomes by longitudinal survey of reproductive rates.

3.3: Develop a genetic improvement strategy if considered appropriate & facilitate the development of research strategy aimed at providing superior animals for developing markets in Laos and Vietnam.

3.4: Develop farmer, trader, livestock officer & university training packages on implementing breeding management interventions in case-study locations.

3.5: Monitor & evaluate breeding improvement practices.

Breakout work: 3 groups

1. Health: managing TAD & endemic diseases
2. Marketing: meeting demand for quality & quantity
3. Production: nutrition & reproduction for new markets

Questions:
How best to measure knowledge gaps?

What & when is intervention appropriate?

Where is intervention best tested?

What capacity building & scale out will be required (farmer, trader, extension worker)?