

Rapid appraisal of good practice: choosing between livestock fattening and breeding in Lao PDR

The Resilient Livelihoods for the Poor program, implemented with DFAT support, includes asset transfer and livelihoods support for livestock production. The program conducted enterprise analysis, prepared posters describing the maintenance cycle and caring for different types of livestock (*what to do*) and employs people to mentor families receiving and managing assets.

This rapid appraisal of good agricultural practice reviews experience in SE Asia to identify good practice choices between livestock fattening and breeding for poor households in Lao PDR.

Challenges

Smallholder livestock in SE Asia is mostly produced in extensive systems with low capital and other inputs – resulting in low productivity.¹ For example in pigs, age to first mating and age to slaughter live weight are delayed; females may produce only one litter per year and some may only produce 2–3 litters per lifetime.² In between producing a litter, the adult breeding animal must be fed and cared for. In these systems, the scavenger food resource base limits the number of livestock that can exist in a village under free-range conditions. This is symptomatic of the chronic shortage of animal feed in SE Asia. In addition to shortage of feed, imbalanced nutrition is a major factor responsible for low livestock productivity in Asia.³ Additional animals in such systems can only add to productivity if they are fed with grown or purchased feed. These livestock system challenges provide a context for the benefits and costs in each part of a livestock system:

- **Breeding** – pigs, goats or poultry kept for long periods to produce offspring through breeding includes **benefits** such as holding a valuable asset, production through natural increase, and developing resilience to local conditions; and **costs** such as the need to feed breeding animals and the risk of them dying or becoming sick throughout pregnancy and between pregnancies, large up-front costs and less frequent income, the purchase or growing expenses for feed or supplements, and the additional technical skills needed to manage animals for breeding.
- **Fattening** – the feeding and growing of young animals for weight gain to a market size includes **benefits** such as reduced feeding costs, more frequent and predictable income, reduced risks of lost assets through animal death, flexibility to tailor scale of business to household capacity, and lower technical skill requirements; and **costs** such as the upfront purchase of young animals, the purchase or growing expenses for feed or supplements, and the risk of purchased animals not being resilient to local conditions.
- **Finishing** – the feeding of market-size animals to a finished condition ready for slaughter includes **benefits** such as an ability to respond quickly to market requirements, more frequent income, and reduced capital tied up in livestock assets and **costs** such as the upfront purchase of animals for finishing, the technical skills needed to formulate feed for finishing animals, the cost of high quality feed required for finishing, and the risk of purchased animals not being resilient to local conditions.

Because a village or household resource base can only support a limited number of livestock without additional feed production or supply options, it makes sense for households to focus on that part of the livestock system offering the best benefits and least costs. Livestock industries are stratified in Lao PDR and neighbouring countries such as Vietnam and Thailand, creating an opportunity for households choosing livestock enterprises to specialise in production systems where they have a comparative advantage.

¹ Ahuja, V. (ed.) (2012) *Asian livestock: Challenges, opportunities and the response*. Proceedings of an international policy forum held in Bangkok, Thailand, 16-17 August 2012. Animal Production and Health Commission for Asia and the Pacific, International Livestock Research Institute and Food and Agriculture Organisation of the United Nations. Rome.

² Samkol, P., Borin, K. and Sovann, S. (2005) *Pig systems in Southeast Asia – the case of Cambodia*. International Livestock Research Institute, Nairobi, Kenya.

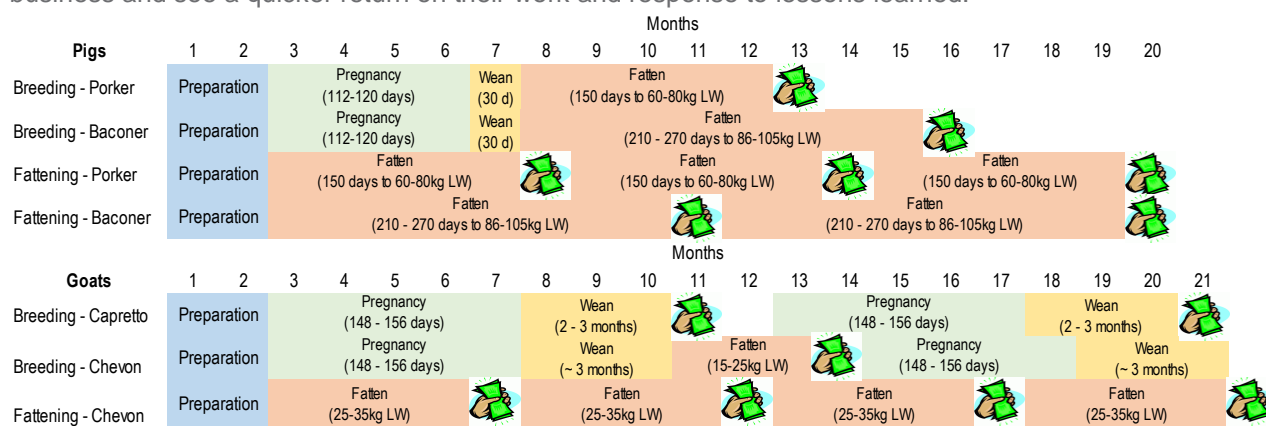
³ Makkar, H. (2012) *Feed and fodder challenges for Asia and the Pacific*. In: Ahuja, V. (ed.) (2012) *op. cit.*

Increasing demand for livestock products in developing countries presents an opportunity for increased incomes in households raising livestock or trading along livestock value chains. However, the increasing demand for product quality and food safety among urban consumers, and the increasing competition from imports as well as from larger-scale and more sophisticated commercial suppliers, present a challenge for smallholder livestock producers to participate in, compete for, and defend their market share of the growing demand for livestock products.⁴ New technologies as well as innovative production, processing, procurement and distribution systems have emerged to more efficiently meet not only the larger volumes of livestock products required but also the increasing demand by consumers for food product quality and safety, apart from complying with public rules and regulations governing the trade in livestock products.⁴

The main increase in meat supplies in recent years has come from industrial enterprises for pigs and poultry. Growing at twice the rate of mixed production systems and six times the rate of grazing systems, they currently produce more than 75% of the meat in SE Asia.⁵ Market forces, particularly with the commencement of the ASEAN Economic Community in late 2015, will continue the move towards more intensive specialised systems with high-input livestock management and disease control and dependence on feed grains and protein supplements.⁶

Possible Solutions

The benefits and costs of each part of a livestock system need to be considered by a household before they begin a livestock business. Households can understand their comparative advantage in a regional livestock system by identifying those parts of the system with the least risk, best cash flow and good returns. Focusing on comparative advantage can reduce risks and improve cash flow (see chart). The more frequent product sale and quicker production cycle of fattening systems allows poor households to gain confidence in the livestock business and see a quicker return on their work and response to lessons learned.



Strategies for good practice

In Lao PDR it is possible to buy day-old chicks or piglets for fattening at times of the year when there is surplus feed (e.g. at the time of the rice harvest) or reduced risk of disease (e.g. the dry season has a lower risk of Newcastle Disease for poultry). This recognises that animal breeding is a specialised business with economies of scale, already highly developed in Thailand and Vietnam. Lao PDR has a comparative advantage in access to green feed and extensive grazing resources, which are ideally suited to fattening cattle and goats because they are animals that can be fattened with high roughage forage and browse. The cost of composite feed for poultry and pigs is relatively high in Lao PDR because of transport costs and limited local production.

The ASEAN Economic Community, which comes into effect at the end of 2015, creates opportunities for reduced transport costs, resulting in cheaper supply of day-old chicks, piglets and composite livestock feeds in Lao PDR, and increased demand for red meat produced from goats and cattle feeding systems in the mountain areas of Lao PDR.

⁴ Costales, A. (2007) *Pig Systems, Livelihoods and Poverty in South-East Asia: Current Status, Emerging Issues, and Ways Forward*. Pro-Poor Livestock Policy Initiative, A Living from Livestock Research Report. Bangkok, Thailand.

⁵ FAO Statistics at <http://faostat3.fao.org/>. Accessed August 11, 2015.

⁶ ILRI (2014) *Livestock Production Trends*. International Livestock Research Institute, Nairobi, Kenya.