



LIVESTOCK DIVERSITY IN LAO PDR

LIVESTOCK PRODUCTION IMPROVES RURAL LIVELIHOODS

Agriculture is the mainstay of the economy in Lao PDR, contributing 40.7 % of GDP¹ and employing more than 80% of the population. For the rural smallholders, who contribute most of the country's agricultural output, livestock keeping is often a vital source of cash income, a means to accumulate assets, and a provider of inputs to crop production (manure and draught power). Cattle, buffaloes, pigs, chickens and goats are the most important livestock species in the country. Demand for meat is increasing, and there is growing potential for exporting livestock and their products to neighbouring countries. The government has adopted a livestock development plan to strengthen and promote animal production and enhance national food security.

¹ Ministry of Planning and Investment, 2007

LIVESTOCK PRODUCTION IS CHANGING

Farmers raise animals predominantly by traditional methods, and output per animal is not high. The animals are mainly indigenous and are kept mostly under free range conditions; they graze on natural grasslands, in paddy fields after the harvest, on fallow land and in the forest. Feed resources are inadequate, and diseases and parasites are serious constraints. The free range system means that there is often no selection of breeding animals. Livestock support services, research and extension, marketing networks, transport and communication links, and access to inputs and credit all need to be improved.

Despite the continued dominance of smallholder production, the country's livestock production systems are changing. In lowland areas, crop

production is being intensified and there is increased use of mechanized power. This restricts the grazing land available for cattle and buffaloes, and limits their importance as draught animals. In the cities, commercial pig and poultry enterprises are emerging in response to rising demand, and one commercial dairy cattle farm has been established. Lao PDR has a comparative advantage in large ruminant production over neighbouring countries, with scope for further development of cattle, buffalo and goat production in the uplands. Growing demand for goat meat has resulted in quite a rapid increase in the national goat population (around 8 percent per annum) over the last 20 years, the animals largely being kept by smallholders in mountainous areas. More recently, some districts have seen a huge boom in goat numbers, with the population rising tenfold within a period of six years.

These trends place new demands on the country's livestock populations and on the agro-ecosystems of which they are a part. It is vital to ensure that the resources that underpin animal production and the wider farming system are maintained and developed sustainably so that they provide ongoing livelihood opportunities for local people and remain available for the future. The management of livestock genetic diversity is one important element of this approach.



Photos: MAFF/VA Phengvilaysouk

Photo: IFAD/ J.Holmes

Photo: IFAD/R.Crossman



Photos: MAFRI/A. Phengvilaysouk



Photos: MAFRI/A. Phengvilaysouk

AUTOCHTHONOUS LIVESTOCK DIVERSITY IS AN ASSET

At present, local livestock breeds provide most of the country's animal products. Exotic animals are utilized by urban commercial pig and poultry producers and some exotic cattle breeds have been introduced. However, attempts to introduce exotic breeds among smallholders have had little success, principally due to a lack of good quality feed and high levels of disease and parasite challenge. Cross-breeding involving exotic cattle has shown success on the research station, but resources to spread cross-breeding schemes more widely have been limited. Indigenous breeds currently provide by far the largest share of the country's animal products. They are well adapted to local conditions, and there is potential to improve their productivity through selective breeding. The Northern Cattle Station has worked in cooperation with local farmers to improve local cattle by selecting the best bulls for mating. However, such activities have had little impact on the livestock population as a whole.

WHAT IS REQUIRED TO IMPROVE LIVESTOCK PRODUCTIVITY?

Accurate information on breed characteristics is a key requirement for planning improved management. Improved inventory and characterization is identified by the Country report for animal genetic resources management in the Lao PDR as a critical area for improvement. Much remains to be done to improve knowledge of local animal genetic resources. For example, indigenous poultry – chickens, ducks, geese, and turkeys – are yet to be studied systematically. Pigs have been the subject of a country-wide characterization programme, which identified four types of indigenous pig, but further work on breed identification and genetic analysis is required.

Other potential developments identified in the Country Report include community-based breeding programmes, better strategies for the transfer of improved genetic resources to farmers, and the introduction of animal identification and recording schemes. However, it is also recognized that if measures of this type are to succeed, parallel improvements in management, nutrition and animal health care are required.

HOW TO IMPROVE GOAT PRODUCTIVITY – LESSONS LEARNED FROM CHOMPET AND PAK OU DISTRICTS, LUANGPRABANG PROVINCE

Participatory rural appraisals conducted in Chompet and Pak Ou districts, Luangprabang province identified diseases and parasites as among the key constraints faced by local goat keepers. Goat keepers also mentioned damage to crops, and soil degradation/low fertility as priority concerns. This illustrates that livestock development efforts have to take account of interactions between animal and crop production and consider the impacts of livestock keeping on the wider ecosystem. To address these concerns, initial activities included the provision of de-worming treatment for local goats, planting Guinea grass and *Stylosanthes 184* as forage crops, and providing training for the goat keepers. Further efforts are needed to complement these activities by identifying achievable strategies for genetic improvement in the local goats. A curriculum for goat production was produced, that could be utilized as a standard tool to train farmers countrywide to improve their skills in goat production and ultimately their livelihoods.



**Ministry of Agriculture
and Forestry**

P.O. Box 811
Patouxay Roundabout
Lanexang Avenue
Vientiane 0100

www.maf.gov.la



**Food and Agriculture Organization
of the United Nations**

Viale delle Terme di Caracalla
00153 Rome - Italy

www.fao.org/biodiversity
With the support of FAO and the FAO/Netherlands
Partnership Programme