



Photo: FAO/IFPRI Project



Photo: FAO/IFPRI Project

# AGRICULTURAL BIODIVERSITY IN LAO PDR

its importance and contribution to food security, sustainable livelihoods and nutrition

Human beings manage and depend on a diverse range of living resources for their survival. In agricultural ecosystems, the maintenance of biodiversity is important for the production of food, and to conserve the ecological foundations to sustain life, ensure food security and rural peoples' livelihoods.

Agricultural ecosystems are dynamic communities of living organisms managed by human beings to produce food, fuel, energy and other goods. They are constantly in evolution to adapt to variations in resources status, population dynamics, knowledge and technological advances, markets and trade, and the policy environment. In light of major global trends such as climate change, the role, functioning and resilience of agricultural biodiversity in ecosystems becomes increasingly important. An integrated and adaptive approach is needed to respond effectively to the pressures and demands inherent in a dynamic living system resilient to change. People and their cultural diversity are an integral part of agricultural ecosystems, and building on their local knowledge systems and social organization is indispensable for sustainable agricultural development.

Lao PDR is a biodiversity mega-diverse country, and one of Vavilov's "Centres of Origin" of domesticated plants. The people of Lao PDR make tremendous use of this biodiversity, particularly in the agriculture sector, which by far is the most important economic sector in the

country. Over 80 percent of the labour force is employed within the agriculture sector, which is largely subsistence agriculture that is characterized by low inputs and low outputs. In Lao PDR, a wide-range of wild plants and animals contribute significantly to day-to-day basic nutrition of both rural and urban residents.

Agricultural biodiversity in Lao PDR is considered a crucial resource for food security, sustainable livelihoods and adequate nutrition. While these resources have benefited the country for centuries, better use, improved development and enhanced conservation of agricultural biodiversity are required to meet both current and future demands for food, to decrease chronic malnutrition, and to reduce rural poverty.



Photo: FAO/B. Barten

## What is agricultural biodiversity?

Agricultural biodiversity is the variety and variability of domestic and wild biological diversity of relevance for food and agriculture, at the genetic, species and ecosystem levels. It includes:

- 1) Plant, animal, microbial and fungal genetic resources.
- 2) Organisms that are necessary to sustain key functions of the agro-ecosystem, its structure and processes, such as pest and disease regulation, pollination and nutrient cycling, and their interactions.
- 3) Abiotic factors such as physical landscapes within which agriculture occurs.
- 4) Socio-economic and cultural dimensions such as traditional and local knowledge that shape agricultural biodiversity.

*Adapted from the Convention on Biological Diversity ([www.biodiv.org](http://www.biodiv.org))*

## Who maintains agricultural biodiversity?

**Farmers, pastoralists, fisher-folk and forest dwellers**

Through wise farming practices.

**Researchers**

Through enhanced ecological knowledge and technology development.

**Policy-makers**

Through appropriate agro-environmental policies at local, regional and global levels.

**Consumers**

Through consumption choices that influence market demand for ecological and fair agricultural products, promoting sustainable agricultural practices.





Photo: NAFRI/A. Pheng/laysook

## THE LAO PDR NATIONAL AGRICULTURAL BIODIVERSITY PROGRAMME

In December 2004, the Ministry of Agriculture and Forestry endorsed the Lao PDR “National Agricultural Biodiversity Programme” (NABP) as a policy document. The NABP was developed to act as the framework and long-term strategy for implementing a coordinated approach to better using, developing and conserving agricultural biodiversity. It was prepared to support two of the main development priorities for Lao PDR: to achieve food security and improve the livelihoods of the rural communities; and to enhance the Government’s capacity to ensure the sustainable use of natural resources. The NABP is consistent with, and was designed to be integrated with the implementation of the National Biodiversity Strategy (2020) and Action Plan (2010), the Government’s Strategic Vision for Agricultural Sector, and the National Growth and Poverty Eradication Strategy. It is also consistent with other national sustainable development strategies and plans.

The NABP is a structured policy framework which addresses the following thematic components:

- (i) Crop and Crop Associated Biodiversity;
- (ii) Livestock Development and Management;
- (iii) Non-Timber Forest Products and other Terrestrial Biodiversity;
- (iv) Sustainable Use and Conservation of Aquatic Biodiversity;
- (v) Household-based Integrated Agriculture Production Systems.

Two cross-sectoral components complete the framework of the NABP, to ensure its successful implementation:

- (vi) Management Arrangements; and
- (vii) Integrated Participatory Planning Approaches.

For each component, the NABP outlines a work plan, identifying intended outputs and activities that need to be undertaken in order to implement the NABP.

The National Agricultural Biodiversity Programme acts as a framework for action providing a long-term perspective for implementing a coordinated approach to improved management of agricultural biodiversity in Lao PDR.



Photo: NAFRI/A. Pheng/laysook



Photo: FAO/T.A.Vu



**Ministry of Agriculture and Forestry**

P.O. Box 811  
Patouxay Roundabout  
Lanexang Avenue  
Vientiane 0100, Lao PDR

[www.maf.gov.la](http://www.maf.gov.la)



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

Viale delle Terme di Caracalla  
00153 Rome - Italy

[www.fao.org/biodiversity](http://www.fao.org/biodiversity)  
With the support of FAO and the FAO/Netherlands Partnership Programme