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.

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.

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)
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.