



Policy Brief:

The Role of the Agriculture Sector to promote Food Security and Nutrition in Lao PDR



Compiled by
Agriculture and Forestry Policy Research Centre (AFPRC),
National Agriculture and Forestry Research Institute (NAFRI),
with the support from Food and Agriculture Organization (FAO)

July 2016

Key messages:

- **Since 2000, the agriculture sector produces enough** food to meet caloric requirements, but the quality, safety and diversity of products needs to be improved.
- **Rates of malnutrition remain unacceptably high:** 42% of children under 5 years of age in Lao PDR are stunted (2015), particularly in the northern lowlands and highlands - one of highest rates in Asia.
- **The cost incurred as a result of malnutrition** is estimated to be USD 100 million (or 2% of Lao PDR's GDP) every year.
- **Improving nutrition is a condition and an outcome of socio-economic development.**
- **Addressing food insecurity and malnutrition requires a convergence of interventions** as the underlying causes and drivers of malnutrition often blur sectoral boundaries.

1 The Government of Lao PDR is committed ...

The Ministry of Agriculture and Forestry (MAF) is committed to reducing food insecurity and malnutrition, consistent with Lao PDR's endorsement of the World Food Summit Declaration and the ratification of the International Covenant on Economic, Social and Cultural Rights, in which the right to adequate food is enshrined. This commitment is clearly articulated in National Policies on "Food Security and Commodities" and on "Nutrition". The Agricultural Development Strategy (ADS) reaffirms these commitments and calls on stakeholders to plan for and ensure that food production at national and household level meets nutritional needs and to expand the concept of and strategies for food security to include nutrition, focusing particularly on improving dietary diversity. Lao PDR has adopted a "convergence" approach, combining priority interventions from Agriculture, Health, Education and WASH (water, sanitation and hygiene) sectors to improve Food Security and Nutrition (FSN), implementing them in the most vulnerable districts.

The Government of Lao PDR is committed to the **Sustainable Development Goals (SDGs)**:

- Double agriculture productivity and incomes of small-scale food producers;
- Reduce the prevalence of undernourishment;
- Decrease rates of stunting from 42% to 34% by 2020 and 25% by 2025.

Planning in the Agriculture Sector for Food Security and Nutrition



A convergence approach to food security and nutrition requires finding a common language between nutrition-specific (health-side) and nutrition-sensitive (agriculture, social protection, education etc.) approaches. A good starting point is adopting an approach that is:

- People-centered;
- Multi-sectoral and multi-level;
- Participatory;
- Context-specific;
- And politically owned.

2 How to achieve Food Security and Nutrition

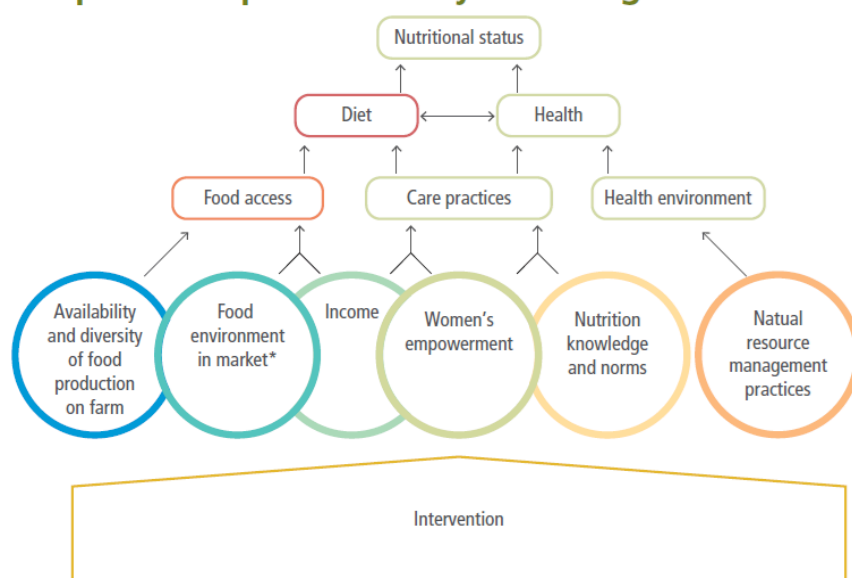
According to FAO, ‘**food systems** provide for all people’s nutritional needs, while at the same time contributing to economic growth. The food and agriculture sector has the primary role in feeding people well by increasing availability, affordability, and consumption of diverse, safe, nutritious foods and diets, aligned with dietary recommendations and environmental sustainability’.

Food security and nutrition exists when all people, at all times, have physical, social and economic access to food which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life (CFS 2012).

Nutrition-sensitive agriculture seeks to maximize the agriculture sector’s contribution to nutrition, looking beyond supply of staple foods, to consider the needs of individual consumers, seeking linkages with health, social protection, water and sanitation, care and education sectors to tackle the underlying causes of malnutrition.

The agriculture sector can contribute to nutrition through multiple pathways, as illustrated below. Among rural households, the nutrition situation may be determined by the supply as well as the demand for food. For example, food production (availability), income and mobility (accessibility), potable water and cooking practices (utilization), and environmental conditions (security and seasonality) may determine the supply of food. But people’s health may be jeopardized if they do not value and so do not seek diverse foods, if they use unsafe food preparation practices, consume insufficient amounts of vital nutrients for their age due to social norms, or have too much physical work as pregnant or lactating mothers. While nutrition is often included in the definition of food security, it is particularly important to identify who within the household and community is consuming what, how much, and why.

Simplified Impact Pathways from Agriculture to Nutrition



Source: Herforth and Ballard 2015

*The food environment constrains and signals consumers what to purchase. It consists of the availability, affordability, convenience, and desirability of various diverse foods (Herforth and Ahmed 2015). Interventions can affect the food environment, and thus the kinds of foods likely to be consumed by consumers.

The diagram shows big-picture pathways through which investments (projects or policy) can affect nutrition:

- Food access through improved access to nutritious foods on-farm, increased availability and lower prices of diverse nutritious foods in markets, and income which can be spent on more diverse nutritious food if such food is available, affordable, and convenient.
- Care practices through empowerment of women (particularly if they can control income, their time and labor), and through incorporating behavior change communication.
- Health environments through management practices that protect natural resources (water in particular), and safeguard against health risks introduced by agricultural production (e.g. livestock, standing water, agrochemicals).

3 The state of Food Security and Nutrition in Lao PDR

Poverty

Over the past 20 years, the proportion of the country's population living in poverty has declined significantly, however, it is estimated that the percentage of the population living under the poverty line remains 23.2% (World Bank 2013). Between 1990 and 2012, GDP increased 170% (FAO SOFI 2013). Poverty incidences are highest among minority populations living in remote upland areas of the country where communities are particularly dependent on the agriculture sector as a source of livelihood, food and nutrition.

Food Security

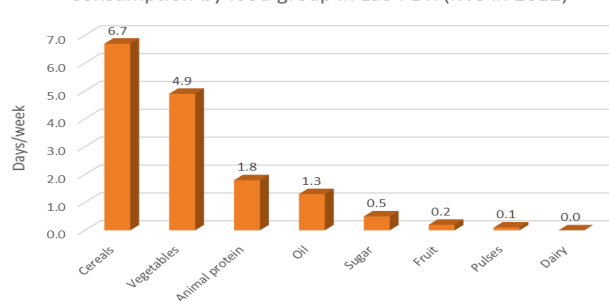
Agriculture and livestock production have increased steadily and significantly over the last decades (doubling the yields of many crops) as well as Dietary Energy Supply (DES) per person.¹ According to the Risk and Vulnerability Survey (RVS in 2012), households generally consume a sufficient number of calories per day, largely derived from carbohydrates. However, based on Food Consumption Scores (FCS) and Household Food Insecurity Access Scores, the Government estimates that 11.2% of households are food insecure, with the highest incidence in the central/southern highlands and the Mekong Corridor. Most rural households access food through homestead cultivation, local markets and gathering of wild foods, a particularly important source of animal protein and vegetables to bridge lean seasons.

Nutrition

Malnutrition remains a serious constraint to socio-economic development in Lao PDR. Determined by dietary intake, health, sanitation environment, and care practices, a multi-sectoral approach to tackling the root causes of malnutrition is crucial. Despite GDP growth and increases in agriculture productivity, stunting figures have only marginally improved. 42% of children under the age of five are considered to be stunted and 25% underweight. In the northern lowlands and highland regions, stunting rates are highest at 50 and 58% respectively (RVS 2012), impairing the cognitive and physical development of one in every two children. Furthermore, nearly 40% of children aged 6-59 months and 30% of women of reproductive age (15-49 years) suffer from anaemia (NNS 2015). Food based approaches are an important means to tackle these deficiencies.

The average Lao household consumes rice and small amounts of vegetables each day, accompanied by protein only 1.8 days per week, in the form of fish and meat. Of the sources of protein, fish is most consistently consumed across wealth quintiles. Consumption of eggs is increasing, but pulses and milk are nearly absent from the diet. In addition, fat/oil consumption is very low, particularly among poor and borderline FCS households, and are consumed an average of 1.3 days per week.

Consumption by food group in Lao PDR (RVS in 2012)



Food security and nutrition at a glance in Lao PDR (RVS in 2012)	Rural population	Agro-ecological zone				
		Vientiane Plain	Northern Lowlands	Northern Highlands	Mekong Corridor	Central/Southern Highlands
% with poor/borderline consumption (FCS)	11.2	2.3	4.8	12.2	15.7	24.8
Mean dietary diversity score (HDDS)	6.4	7.9	6.7	5.9	6.6	5.7
% reporting inability to obtain sufficient food in past month	11.9	0.6	7.7	16.5	13.2	18.6
% stunted (children <5)	46.2	27.1	50.7	58.7	39.5	40.2
% wasted (children <5)	25.3	20.7	23.2	25.6	25.2	28.4
% underweight (children <5)	5.4	4.4	4.9	4.0	7.3	6.1
% with improved sanitation	53.5	95.4	67.5	48.0	45.6	19.6
% of children <5 with diarrhoea	11.9	8.7	9.8	12.7	10.2	15.4
% of children <5 with sub-optimal diet	55.2	19.7	42.9	59.2	50.7	76.8
% of women with no education	35.7	20.7	28.4	46.3	24.9	57.0

¹ From 1990-2012: undernourishment declined to 27% (FAO SOFI 2013); From 1990-2009: DES increased 16%, animal-origin supply increased 104% and vegetable-origin products increased 11% and remain the major DES source (FAOSTAT FBS: 2013).

4 Actions to Improve Food Security and Nutrition through Agriculture in Lao PDR

While the agriculture sector harbors the mandate to increase productivity, it can do so in a manner that also provides for peoples' nutritional needs by increasing availability, affordability, and consumption of diverse, safe, nutritious foods and diets.

Lao PDR's Agricultural Development Strategy, and its Food Security and Commodities and Nutrition Strategies and Action Plans comprehensively address the challenges faced in the agriculture sector. NAFRI, with support from FAO, has highlighted three key challenges and respective contributing factors for the agriculture sector to tackle food insecurity and malnutrition in the country.² These are very much linked with the objectives already set by the agriculture sector and now require further implementation support.

Challenge 1: Shortage of agricultural production in particular areas and seasons

Contributing factors

1. Promote productivity of diversified and nutrient-rich food crops and livestock/fish to ensure food access and consumption at household and community level;
2. Promote clean and safe agricultural production;
3. Promote safe handling and primary processing for improved quality and reduction of losses.

Contributing factors

Challenge 2: Low purchasing power of food for consumption

1. Create opportunities for farmers to generate income from agriculture and non-agriculture sectors based on their comparative advantage;
2. Develop buying-selling points in remote rural areas, invest in infrastructure- targeting areas for Sam Sang, and disseminate information on markets and prices of agricultural products;

3. Promote and create mechanisms to access credit.

Challenge 3: Low consumption of diverse nutrient-rich food

Contributing factors

1. Provide nutrition education to extension staff;
2. Communicate the importance of the consumption of nutrient-rich and diverse diets;
3. Promote diverse and sanitary food processing practices.

5 Next Steps: Implementation and Coordination

The Government has recognized that food security and nutrition are complex issues to tackle and cannot be addressed by any sector alone. Cross-sectoral collaboration is fully embraced by the Government as well as sector-specific work to improve national and individual food security and nutrition, vital for socio-economic development.

As each Ministry reflects on its contribution to food security and nutrition, MAF has embarked on a process to adapt and localize its nation-wide commitments to reduce food insecurity and malnutrition through multiple channels including sub-national planning and programming. This exercise is allowing for a range of stakeholders to identify effective approaches that can be adapted to a range of agro-ecological and cultural contexts, in a participatory and inclusive manner. Planning divisions from MAF's line departments and institutes are now encouraged to conduct a thorough situation analysis to identify clear objectives and targets that address the above challenges and allocate resources at each administrative level based on the contributing factors listed above. These plans and programmes need to be coordinated with and aligned with other relevant sectors, relevant bodies and committees to ensure coherence in their approach and implementation.

² More details are in the White Paper on Food Security and Nutrition in Lao PDR, published by NAFRI and FAO in 2015.