

LAO FOOD AND NUTRITION SECURITY SURVEY, 2015

Subnational Household Survey

Summary of Findings

June, 2016



Foreword

The Lao PDR Food and Nutrition Security Survey (FNSS) is an example of what can be achieved when we work towards a common goal. In this instance that goal is to reduce all forms of malnutrition among women, children and disadvantaged groups in Lao PDR and to strive towards the achievement of the targets set by the Lao National Socio-Economic Development Plan to 2020, the Sustainable Development Goals to 2030 and the World Health Assembly goals for improving maternal, infant and young child nutrition by 2025.

The FNSS was conducted in 2015 by the Ministry of Health and the Lao Statistics Bureau of the Ministry of Planning and Investment with strategic and technical guidance from the National Nutrition Committee (NNC) Secretariat and related ministries. The Survey has generated data about the nutritional status of women, infants and young children and has provided information and insight into the drivers of undernutrition in Lao PDR.

The results from this survey will be used to inform nutrition programming. They will be used to reflect on current programming directions and to inform the need for adjustments or changes. The results will be of great value as a baseline for the National Plan of Action on Nutrition 2016-2020 and to allow for future impact evaluation of the multi-sectoral response to nutrition implemented by the country. The results from this survey will help us monitor if our choice of nutrition interventions and how we implement them are effective enough to reduce all forms of malnutrition. We now have a better understanding of which population groups are most at risk for undernutrition and this will help us to improve our targeting for future action.

This FNSS shows the sincere efforts and commitment made by the Government of Lao PDR towards nutrition. We are confident that all the related sectors, development partners, and stakeholders will provide support for the dissemination and use of these survey results for the attainment of our common goal to reduce all forms of malnutrition in Lao PDR and to improve the nutritional status of all women, infants, young children and disadvantaged groups.

On behalf of the Government of Lao PDR, the Lao Bureau of Statistics and development partners, we wish to express our gratitude to all organisations and individuals who have contributed to making this survey a success, especially all concerned departments in the Ministry of Health and the Lao Bureau of Statistics, Ministry of Planning and Investment for leading the survey. We gratefully acknowledge the strategic and technical guidance from the National Nutrition Committee (NNC) and its Secretariat and concerned ministries and we thank development partners; UNICEF, WFP, European Union, and Swiss Agency for Development and Cooperation (SDC) for their technical and financial contributions.

Our wish now is that these survey results are shared widely with all stakeholders from Government and development partners and are used to inform policies and programmes and to improve the nutrition situation in Lao PDR.

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INTRODUCTION AND BACKGROUND

This summary report is based on the Lao PDR Food and Nutrition Security Survey (FNSS), conducted in 2015 by the Ministry of Health and the Lao Statistics Bureau of the Ministry of Planning and Investment with strategic and technical guidance from the National Nutrition Committee (NNC) Secretariat and concerned ministries.

Survey Objectives

The 2015 FNSS has as its primary objectives:

- To provide quantitative data that is comparable to baseline estimates for an impact evaluation of the Maternal and Young Child Nutrition Security Initiative
- To provide quantitative data for the baseline of the National Plan of Action on Nutrition 2016-2020 to allow for future impact evaluation
- To support the monitoring of Millennium Development Goals and Sustainable Development Goals related to food and nutrition security in five provinces

Sample and Survey Methodology

The 2015 FNSS is a cluster household survey in five provinces of Lao PDR: Luangnamtha, Oudomxay, Saravane, Sekong and Attapeu. The survey was designed to provide information on food and nutrition security at the household level, and for women of reproductive age and children under 5 years of age.

Sample Design

The sample for the FNSS was designed to provide estimates for a large number of indicators on the situation of children and women at the province level. The urban and rural areas within each province were identified as the main implicit sampling strata and the sample was selected in two stages. Within each province (i.e. sample domain), enumeration areas were sorted according to urban, rural with road and rural without road; and a specified number of census enumeration areas were selected systematically with probability proportional to size.

Questionnaires

Four sets of questionnaires were used in the survey: 1) a household questionnaire which was used to collect basic demographic information on all *de jure* household members (usual residents), the household, and the dwelling; 2) a questionnaire for individual women administered in each household to all women age 15-49 years; 3) an under-5 questionnaire, administered to mothers (or caregivers) for all children under 5 living in the household; and 4) a village-level questionnaire. There was also a separate reporting sheet for anthropometry and anaemia measurements.

In addition to the administration of questionnaires, fieldwork teams tested salt used for cooking in the households for iodine content, observed the place for handwashing, measured anthropometry of children age under 5 years and women of reproductive age, and haemoglobin of children 6-59 months and pregnant or lactating women.

Training and Fieldwork

Training of Trainers and training of enumerators for the fieldwork were conducted in July 2015. Training included lectures on interviewing techniques and the contents of the questionnaires, and mock interviews between trainees to gain practice in asking questions.

Fieldwork began 31 July 2015 and concluded 25 September 2015, which was during the peak of the lean season when food shortages were prominent. Therefore the results must be considered within this context and caution taken when making comparisons to other data sets from a different seasonal period.

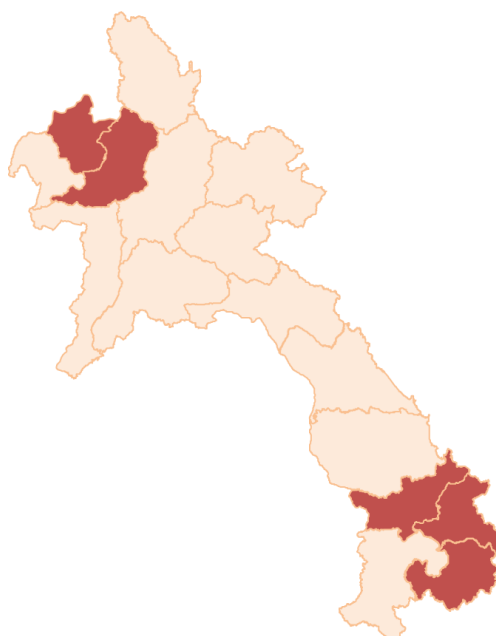
Data Processing

Data were entered using Microsoft Access software on desktop computers by data entry operators. For quality assurance purposes internal consistency checks were performed. Questionnaires were not double entered. Data processing began while data collection was still being carried out in August 2015 and was completed in October 2015. Data were analysed using the Statistical Package for Social Sciences (SPSS) software, Version 20.

The wealth index is a composite indicator of wealth. To construct the wealth index, principal components analysis was performed by using information on the ownership of consumer goods, dwelling characteristics, water and sanitation, and other characteristics that are related to the household's wealth, to generate weights (factor scores) for each of the items used.

Sample Coverage

Of the 6,710 households selected for the sample, 6,550 were found to be occupied. Of these, 6,387 were successfully interviewed for a household response rate of 97.5 per cent. In the interviewed households, 8,712 women (age 15-49 years) were identified. Of these, 7,986 were successfully interviewed, yielding a response rate of 91.7 per cent within the interviewed households. There were 4,444 children under age five listed in the household questionnaires. Questionnaires were completed for 4,290 of these children, which corresponds to a response rate of 96.5 per cent within interviewed households.





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Summary of Findings

Nutritional Status

- In the five surveyed provinces the per cent of infants that were weighed at birth ranged from 32.4 per cent to 60.4 per cent and the per cent of infants who are estimated to weigh less than 2,500 grams at birth ranged from 15.2 per cent to 21.1 per cent .
- All of the provinces except for Attapeu show decrease in child underweight. Almost one in three children under age five in the five provinces combined are moderately or severely underweight (30.3 per cent for males, 29.6 per cent for females) and approximately nine per cent are classified as severely underweight.
- Compared to the Lao Social Indicator Survey (LSIS) 2011/12, there was a decrease in stunting for children 0-59 months in all provinces except Attapeu. In Saravane and Sekong the reduction in stunting was more than 10 percentage points
- In the poorest households 29.0 per cent of women have short stature, compared to 8.2 per cent in the richest households.
- In all five surveyed provinces more than 2/3 of women have normal body mass index, and the per cent of thin women ranges from 9.4 per cent to 19.8 per cent.
- Approximately 1/4 of children are anaemic, with most having mild anaemia. Over 1/2 of children 6-11 months are anaemic, compared to 15.4 per cent of children 48-59 months of age.
- 40.4 per cent of pregnant women are anaemic, while 36.5 per cent of breastfeeding women are anaemic. Unlike anthropometry, there is little variation in both child and maternal anaemia rates by socioeconomic status.

Infant and Young Child Feeding Practice

- In both urban and rural areas the majority of babies are breastfed for the first time within one hour of birth, and more than 85 per cent of newborns start breastfeeding within one day of birth.
- For both males and females, age 20-23 months, the majority of children are not breastfeeding in both urban and rural areas with roads, but in rural areas without roads the rate is 80.2 per cent.
- Among currently breastfeeding infants age 6-8 months, 81.1 per cent received solid, semi-solid or soft foods; compared to 76.7 per cent in rural areas with roads, and 69.3 per cent in rural areas without roads.
- Among children 6-23 months of age, 39 per cent in urban areas and 12.9 per cent in rural areas received the minimum acceptable diet. The proportion of breastfed children receiving the minimum dietary diversity, or foods from at least 4 food groups, was much lower than that for minimum meal frequency.
- Bottle-feeding increases with age, going from 9.9 per cent among 0-5 month old infants to 20.5 per cent among 12-23 month old infants.
- There is a large difference by age in the consumption of animal-source foods, both flesh foods and eggs. 28.8 per cent of children 6-8 months receive flesh foods, compared to 50.5 per cent at 9-11 months and 61.0 per cent at 18-23 months.

Infant and Young Child Feeding Communication, Knowledge and Attitudes

- Literacy is higher for the 15-19 year age group (71.6 per cent) than for the 20-24 year age group (56.9 per cent). The literacy rate in urban areas is more than 90 per cent, while in rural areas it is below 60 per cent.
- Television is the most popular media. More than 4 out of 5 women in urban areas and 2 out of 3 women in rural areas with roads watch television on a weekly basis. In rural areas without roads 54.9 per cent of women watch television.
- 2/3 of women in urban areas, 39.4 per cent of women in rural areas with roads, and 34.8 per cent of women in rural areas without roads were exposed to messages on breastfeeding through mass media.
- In urban and rural areas the majority of women reported receiving messages on breastfeeding from other people. Among the women who received interpersonal communication on breastfeeding, close to 1/2 reported receiving a message from a medical professional or a community volunteer in the past year.

- 58.7 per cent of women in urban areas, 46 per cent of women in rural areas with roads, and 41.1 per cent of women in rural areas without roads reported receiving messages on complementary feeding via interpersonal communication.
- More than 2/3 of women in urban and rural areas believe that colostrum should be fed to the child.



Maternal Diet, Food Supplementation and Woman Smoking

- In urban areas, 3/4 of women who are currently pregnant or who had a live birth in the last two years achieve the minimum dietary diversity, while the percentage is only 33.2 per cent and 19.5 per cent in rural areas with and without roads.
- Eating more food during pregnancy or after having a baby does not appear to be a wide-spread cultural practice in the five surveyed provinces. Less than 1/3 of women reported eating more food, meals, or snacks in all language groups.
- The largest differences in receiving supplementary food were by province. 61.5 per cent of women in Oudomxay received supplementary food, while only 2.7 per cent of women received supplementary food in Saravane.
- Avoiding certain foods and liquids while breastfeeding appears to be more common than during pregnancy in the five surveyed provinces, particularly in rural areas.
- 16.6 per cent of all currently pregnant women report that they are currently smoking.

Micronutrient Fortification and Child Micronutrient Supplementation

- Use of iodized salt was lowest in Sekong (67.3 per cent) and highest in Luangnamtha (96.6 per cent). Households in rural areas without roads and the poorest households are less likely to have iodized salt.
- More than 4 out of 5 households believed they used iodized salt, and within these households 90 per cent of salt tested positive for iodine.
- In Saravane 1/2 of the children have caretakers that have heard of the MNP brand SuperKid. Interpersonal communication from health professionals appears to be the most common source of information on SuperKid.
- In Saravane Province 68.3 per cent of children whose caretakers had heard of SuperKid, consumed micronutrient powder (MNP) in the last 6 months, but of the children that consumed MNP in the last 6 months only 11.7 per cent consumed the recommended minimum of 60 sachets.
- The percentage of children receiving Vitamin A in the last 6 months ranges from 39.5 per cent in Attapeu to 64.9 per cent in Saravane.
- In rural areas less than 1/2 of children received deworming medication within the last 6 months.

Maternal Care and Micronutrient Supplementation

- Among women age 15-49 years 19.1 per cent in rural areas without roads, 27.3 per cent in rural areas with roads, and 36.9 per cent in urban areas have received or bought weekly iron folic acid supplements.
- There was dramatic improvement in all five provinces in coverage of at least one antenatal care visit with a skilled provider between LSIS 2011/12 and FNSS 2015. In 2011/12 four of the five provinces had coverage below 50 per cent. By 2015, coverage in all five provinces is above 70 per cent.
- The per cent of women attending at least four antenatal care visits increased between the 2011/12 LSIS and the 2015 FNSS. The largest increase was seen in Oudomxay, where coverage increased by nearly 50 percentage points.
- Only 25 per cent of women in urban areas and less than 10 per cent of women in rural areas received all three core services of blood pressure, urine, and blood tests.
- The most common component of antenatal care received was a weight measurement, which more than 1/2 of women received in both urban and rural areas.
- Counselling was relatively common in urban areas, where more than 1/2 of women reported receiving counselling on how to take iron folic acid (IFA) supplements, on weight gain / diet, on breastfeeding and on complementary feeding. Counselling services were lower in rural areas.
- There were fewer women that reported receiving or buying iron folic acid supplements than there were that reported at least one antenatal care visit, especially in rural areas. Any IFA coverage was 69.5 per cent in urban areas, 43.8 per cent in rural areas with roads, and 36.2 per cent in rural areas without roads.
- The percentage of women taking 90+ IFA tablets ranged from 13.9 per cent in Attapeu to 37.9 per cent in Luangnamtha.
- Deworming during pregnancy is not common, with less than six per cent of women reporting having deworming medication during their last pregnancy across all five provinces.
- Compared to 2011/12 LSIS, Health facility deliveries increased in all five provinces. As with antenatal care, the largest improvement was in Oudomxay, where the per cent of women delivering in a health facility increased by nearly 30 percentage points.
- Across all five provinces less than 1 out of 4 women received or bought IFA supplements after giving birth.

Child Illness and Specialized Feeding

- 10.7 per cent of boys under five and 9.3 per cent of girls were reported to have had diarrhoea in the two weeks preceding the survey, 3.5 per cent and 2.8 per cent symptoms of acute respiratory infection, and 18.2 per cent and 17.1 per cent had an episode of fever
- For child diarrhoea, a health facility or provider was seen in 81.9 per cent of cases in urban areas. In rural areas with roads a health facility or provider was seen in 56.7 per cent of cases, while the percentage was 39.0 per cent in rural areas without roads.
- In all five provinces less than 10 per cent of under five children with diarrhoea were given more than usual to drink, and the majority were given less. Most children continued feeding, but were fed somewhat less than normal.
- In all five provinces more than 1/2 of children with diarrhea received either oral rehydration solution (ORS) packets or recommended homemade fluids. However, very few children received zinc supplements, and less than 10 per cent of children received ORS and zinc in urban and rural areas.
- Overall, 20.6 per cent of children were ever checked by a health worker for nutritional status according to their caretaker.
- In Luangnamtha and Oudomxay approximately 1/2 of children received specialized food, with the most common type being ready-to-use supplementary food.

Water and Sanitation

- The vast majority of the population uses an improved source of drinking water – 87.1 per cent in urban areas, 81.8 per cent in rural areas with roads, and 82.4 per cent in rural areas without roads.
- In Luangnamtha coverage of improved water was nearly universal in 2011/12 and there was no significant change in 2015. In the remaining four provinces there were increases in the use of an improved source of water.
- 65.7 per cent of households with an unimproved drinking water source are using an appropriate water treatment method, which for nearly all of the households is boiling.
- 89.0 per cent of the urban population is using an improved sanitation facility that is not shared, compared to 46.2 per cent in rural areas with roads and 32.8 per cent in rural areas without roads.
- In 2011/12 Luangnamtha had the highest per cent of people using improved sanitation and there was no change in that province in 2015. In all of the other provinces use of improved sanitation increased between 2011/12 and 2015.
- The percentage of open defecation is 7.7 per cent in urban areas, 48.3 per cent in rural areas with roads, and 63.9 per cent in rural areas without roads. 2/3 of the population in Saravane defecate in the open.
- 85 per cent of the wealthiest households have both improved water sources and improved sanitation, compared to 16 per cent of the poorest households.

- Less than 10 per cent of children had their stools disposed of safely in rural areas.
- 83.8 per cent of urban households had soap or another cleansing agent in the household, compared to 65.0 per cent in rural areas with roads and 53.1 per cent in rural areas without roads. More than 93 per cent of women reported that regularly washing hands with soap is a good idea.
- In urban areas 86 per cent of women reported ever receiving interpersonal communication on handwashing, compared to 76.2 per cent in rural areas with roads, and 77.1 per cent in rural areas without roads.



Early Childhood Care and Education

- 15.7 per cent of male children and 17.3 per cent of female children age 36-59 months are attending an organised early childhood education programme
- For less than 1/2 of children age 36-59 months, an adult household member engaged in four or more activities that promote learning and school readiness during the 3 days preceding the survey.
- More than 60 per cent of children were encouraged to eat in the three days preceding the survey. 78.5 per cent of children in Luangnamtha were encouraged to eat, compared to 50.8 per cent in Saravane.
- 22.3 per cent of male children and 21.2 per cent of female children were either alone or in the care of another child younger than 10 years of age for more than one hour at least once during the week before the survey.

Food Security

- The majority of households have an ‘acceptable’ level of food consumption. In Luangnamtha, Attapeu and Oudomxay provinces, more than 85 per cent of households fall under the ‘acceptable’ category. Saravane province shows the highest levels of poor food consumption (14.3 per cent of surveyed households) and borderline consumption (25.8 per cent).
- Food consumption scores vary by residence and wealth. 91.5 per cent of households in urban areas have ‘acceptable’ level of food consumption compared to 73 per cent in rural areas. 90 per cent of the richest households have ‘acceptable’ food consumption compared to 60.5 per cent of the poorest.
- Saravane province reports the highest number of consumption-based coping strategies and Luangnamtha the lowest. The most commonly and frequently reported consumption-based coping strategy is ‘relying on less preferred or less expensive foods’. The least common is ‘Reducing number of meals eaten in a day.’
- Households in rural areas without roads have the highest reduced Coping Strategy Index compared to households in rural areas with roads and urban households. Consumption-based coping strategy indices also vary strongly by wealth, highest in the poorest compared to richest households.
- Regarding livelihood-based coping strategies, across all five provinces, the percentage of households reporting ‘stress’ coping strategies is much higher than those reporting ‘crisis’ and ‘emergency’ coping strategies¹. Saravane and Attapeu provinces show the highest percentages of households engaging in livelihood-based coping strategies.
- Urban households are less likely to engage in livelihood-based coping strategies compared to rural households. Across the wealth quintiles, the poorest households show highest percentage of household engaging in livelihood-based coping strategies.
- Among the five surveyed provinces, Sekong has the highest percentage (51.2 per cent) of households who reported not having enough food to meet household’s needs. Saravane and Attapeu also records high percentages (35.2 per cent and 30.7 per cent respectively). The mean number of months of household food shortage ranges between 3 - 4 months for all provinces.
- Food shortage is more prevalent in certain socio-economic groups (poorest households, rural households, Mon-Khmer ethno-linguistic group).

1. Refer to Food and Nutrition Security Survey Report 2015 for definition of ‘coping strategies’.

Agriculture

- Oudomxay province reported the highest percentage of households (93.6 per cent) who received advice/ information about livestock and/ or crop production methods in the last three years and Saravane the lowest (56.8 per cent). Government agricultural centres are the most commonly reported source of information, followed by television, with newspapers and merchants the least common. In terms of applying information to practice, households were most likely to apply information that they were most likely to receive, i.e. crop management.
- Livestock rearing is quite common in all five provinces with the percentage of households who report raising livestock ranging from 76 per cent (Attapeu) to 86 per cent (Saravane). In every socio-economic category, more than 60 per cent of households reported that livestock rearing was managed by a woman (female household member). The most common type of livestock raised is local chicken, followed by pigs, duck, cows and buffalos.
- Only a small proportion of livestock are vaccinated, and this is especially the case for local chickens and ducks.
- 20 per cent to 30 per cent of households in the five provinces are engaged in livestock sales. Attapeu records slightly higher percentages of household animal sales in the past twelve months compared to the other provinces.
- Urban households and wealthier households are more likely to sell livestock for income and also report higher incomes from livestock sales, compared to rural and poorer households respectively. Incomes from livestock sales are highest for cows and buffaloes, followed by sales of fish.
- A small number of households reported receiving young animals as part of project assistance in all surveyed provinces, with fish and frogs the most common type. Households from urban areas as well as from the three wealthiest quintiles reported receiving most of the young fish and frogs compared to rural and poorer quintiles.
- Among the surveyed provinces, Sekong reported the highest percentage of households who produced animal products at nearly 31 per cent. The lowest percentage of households was recorded in Luangnamtha, at 3.5 per cent. Dry meat was more likely to be sold than eggs, even though eggs were the most commonly produced agricultural products.
- In terms of use of irrigation on crop production, Luangnamtha province reports the highest percentage at 15.4 per cent while lowest is in Attapeu 2.8 per cent. Most irrigation use is for crop production and household vegetable/garden plots.

- Most of all households in the survey reported that gardens are managed by female members of the family, the highest per cent reported being 80.5 per cent in Attapeu while lowest being in Saravane province at 65.5 per cent.
- The percentage of households receiving assistance in the form of seed, fertilizer, and pesticides ranged from 0.8 per cent to 5.6 per cent in Luangnamtha and Sekong respectively. Poor households are more likely to receive assistance compared to wealthier households.
- More than 90 per cent of households surveyed reported growing crops in the past 12 months. The most commonly grown crop is rice. Maize is the second most commonly reported crop, with Oudomxay reporting the highest at 67.1 per cent compared to lowest percentage reported in Saravan at 13.4 per cent. Households in Oudomxay and Attapeu province reported highest percentages (24.6 per cent and 24.1 per cent respectively) growing vegetable from 'other' category.
- Households report highest percentages for chemical fertilizer use for household vegetable gardens, followed by crops and orchards. Saravane reported the highest percentages of households using any kind of fertilizer on both household vegetable gardens and crops.
- Pesticide use is slightly less frequently reported than use of fertilizers, with most households reporting use of pesticides for household vegetable gardens, followed by crop production.





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