Lao PDR

The Second Regional Training Course on Sampling Methods for Producing core data Items for Agricultural and Rural Statistics

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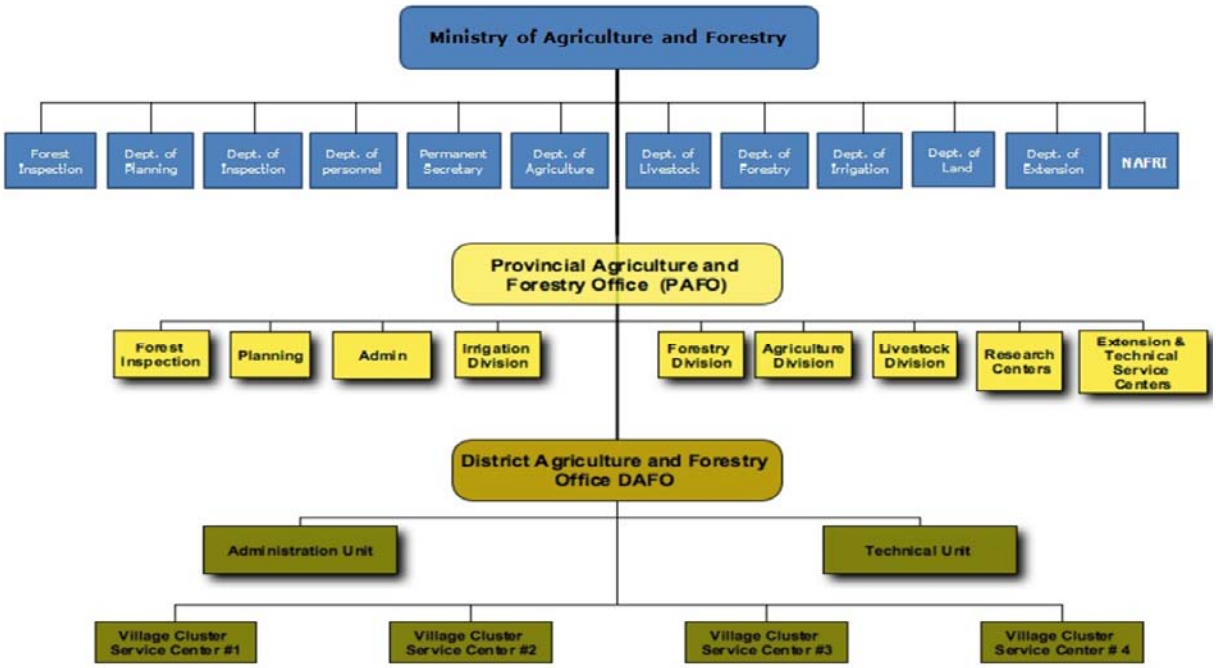
I. General Information of Lao PDR

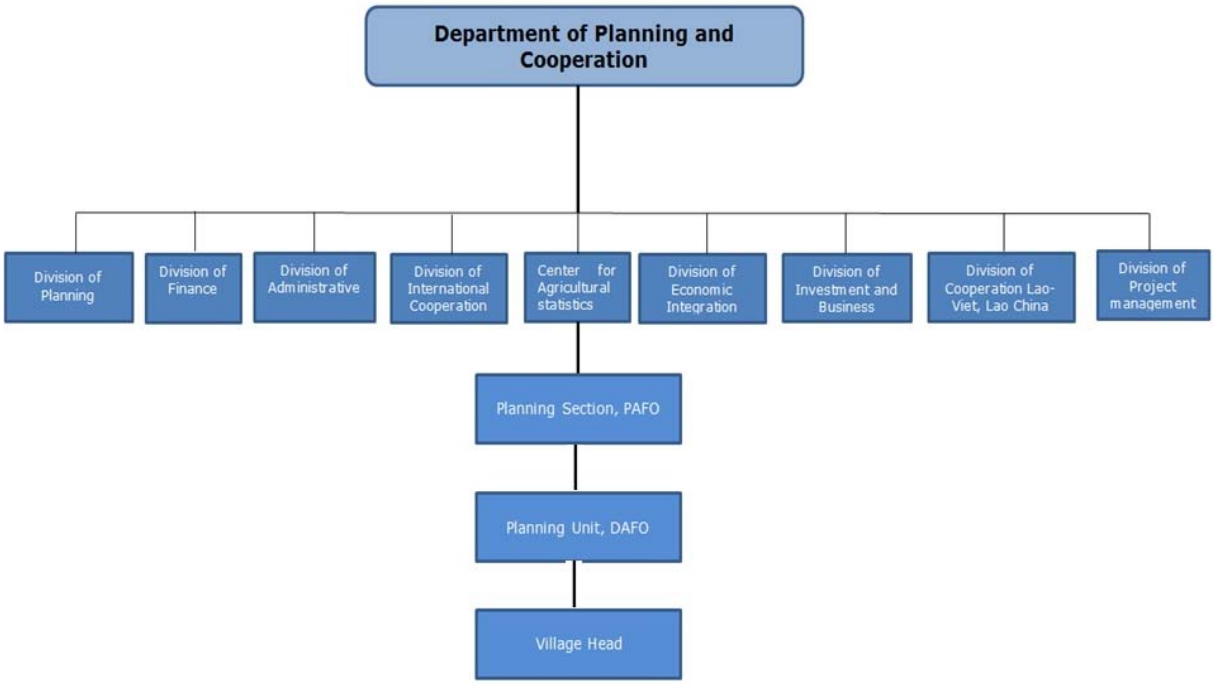
- Lao PDR is a land-locked country
- Area = 236 800 square km.
- 70 % of the country is mountainous,
- Agriculture land 4.5 million ha
- *Border with 5 countries):*
  - North: China and Myanmar
  - south: Cambodia
  - East: Vietnam
  - West: Thailand
- Administrative divisions: 17 provinces and 1 Vientiane Capital
- Population: 6.8 million, 2014
- Consists of 49 different ethnic groups

II. Introduction of Governmental Agriculture Organizations

1. Organizations of Ministry of Agriculture and Forestry



1.1. Organizations of Department of Planning and Cooperation



III. Agricultural Data Collection Methods Applied in Lao

In Lao there are three main sources for agricultural data collection. They are:

1. Agricultural Censuses
2. Crop Cutting Surveys
3. Administrative Reporting System

1. Agricultural Census

1.1 Lao Census of Agriculture 2010/11: an overview

- The Lao Census of Agriculture 2010/11 was the second agricultural census undertaken in Lao PDR; the first was conducted in 1998/99. Since the first census, there have been significant changes in the agricultural sector and these changes needed to be captured in another census
- The Lao Census of Agriculture 2010/11 was undertaken under the overall control of the Agricultural Census Steering Committee, which was chaired by Mr Somsavat Lengsavad, Deputy Prime Minister, Standing Member of Lao Government. The work on the census was undertaken by the Agricultural Census Office (ACO), which was established in the Department of Planning of the Ministry of Agriculture and Forestry (MAF). The Department of Statistics (DoS) of the Ministry of Planning and Investment provided technical assistance with this work.

1.2 Outline of census methodology

- The Lao Census of Agriculture 2010/11 covered the whole of Lao PDR, including urban areas in Vientiane and elsewhere. The census covered private households only. Agricultural activities of institutional units such as government farms, private companies and schools were excluded.

The census had three components:

- Village component: a survey of all villages in the country to collect data from village heads on rural infrastructure and services.
- Household component: a survey of all private households in Lao PDR to collect basic data on crops and livestock.
- Sample farm household component: a sample survey of 41,660 farm households to collect detailed data on agricultural activities.

1.3 Sample design and selection

- The sample for the sample farm household component was selected using two-stage sampling: a sample of villages was first selected, and then a sample of farm households was selected in each sample village.

- In most districts, a sample of between 16 and 22 villages was selected, with 16 farm households selected in each sample village; that is, a sample of between 256 and 352 sample farm households in each district.
- In each district, the sample of villages was selected using stratified systematic probability proportional to size (PPS) sampling. A list of all villages in Lao PDR was prepared. Villages were divided into urban and rural strata, with rural strata being sampled more heavily than urban strata because of their agricultural importance. The estimated number of households in each village was used as the size measure for PPS sampling.

3.3 Sample design and selection (Continue)

- The sample of farm households in each sample village was selected using stratified systematic random sampling based on a list of all farm households in each village prepared following the household component of the census.

- Altogether, 2,620 villages and 41,660 sample farm households were selected in the sample. The sample sizes for each province are shown in next Table:

Table 3.1: Lao Census of Agriculture 2010/11, sample size by province				
Province	Districts	Villages	Sample villages	Sample farm h'holds
Phongsaly	7	541	131	2,094
Luangnamtha	5	356	93	1,488
Oudomxay	7	471	135	2,159
Bokeo	5	283	93	1,488
Luangprabang	12	783	219	3,491
Huaphanh	8	721	155	2,479
Xayabury	11	446	189	3,024
Vientiane Cap.	9	490	136	2,062
Xiengkhuang	8	512	148	2,332
Vientiane Prov.	13	506	231	3,728
Borikhamxay	7	323	124	1,984
Khammuane	9	587	168	2,683
Savannakhet	15	1,012	289	4,566
Saravane	8	605	159	2,544
Sekong	4	233	71	1,133
Champasack	10	643	191	2,997
Attapeu	5	150	88	1,408
TOTAL	143	8,662	2,620	41,660

2. Crop Cutting Survey

2.1. Sampling Frame

- The sampling method employed for the rice crop cutting survey is "Two Stage Sampling". Villages are used as the Primary Sampling Unit (PSU).
- Farm households in the sample villages are used as the Secondary Sampling Unit (SSU).

2.2. Number of samples and sample allocation

Number of PSUs is 10 villages per DAFEO. Number of SSUs is 2 farm households per village, as it has been mentioned

2.3. PSU sampling

The probability proportional sampling to size of planted area (PPS method) is applied to PSU sampling. The list of villages should be made in DAFEO, then the sample villages should be selected.

2.4. SSU sampling

The systematic random sampling is applied

to SSU sampling. The list of farm households should be made in the sample village.

2.5. Crop cutting in a sample farm household

The crop cutting survey in the sample farm household consists of five steps.

1) The first step is to explain the purpose and outline of the crop cutting survey to the head of village and sample farm household. Because their cooperation is very important to get good results of crop cutting survey and to carry out the survey smoothly.
2) The second step is to select sample field at random, namely, to select a sample Rice field (tonar), to select one sample pot(hynar) in the sample Rice field (tonar), and select two sample spots in the sample pot(hynar). “At random” is very important concept in our survey.
3) The third step is to interview with the sample farm household, and to cut, to thresh, to clean and to weigh the rice at the sample spots.
4) The fourth step is to bring back the sample rice from each sample spot to DAFEO. Then the sample rice is dried and measured.
5) The fifth step is to calculate the yield per ha in the sample farm household.

IV. Issue on Sampling Survey

- Master Sampling Frame Design
- Experience and knowledge for sampling design
- Evaluation of Result comparing questionnaire data with Reporting Systems
- Lack of tools for Survey
- Standard of evaluation guideline