

# Evaluation Report

## The Project of Improving Statistics Data on Food Processing and Distribution

### Related to Agricultural Crops in Savannakhet, Lao PDR

#### 1. Evaluation Summary

The evaluation of the project of improving statistics data on food processing and distribution related to agricultural crops in Laos, in overall, is fair. However, there are two main issues that should be improved.

1.1 Data analysis method; quantitative statistical data should be presented as mean, standard deviation, min, and max value. These value can be used in the process of decision making and planning for company and related sections such as government agents and private sector. Cost analysis of a processed product should be divided into fixed costs and variable costs. Whereas, cost analysis of each type of raw agricultural product should present production cost per one kilogram of product.

1.2 An assessment in correctness and reliability of the data analysis result, especially production cost of raw agricultural product and product cost of processed product, may consider from its accuracy and precision.

Evaluation result of the project in each major categories is shown in the following table

Category	Evaluation Result					Comments
	Excellent	Good	Fair	Require Minor Improvement	Require Major Improvement	
1) Clarification of the objective		✓				
2) Research Methodology		✓				
2.1) Survey method		✓				
1) Data sampling method			✓			
2) Sample size			✓			
3) Data collection process		✓				

Category	Evaluation Result					Comments
	Excellent	Good	Fair	Require Minor Improvement	Require Major Improvement	
<b>2.2) Data analysis</b>				✓		
1) Suitability of the method			✓			
2) Reliability assessment of the analysis result				✓		
<b>2.3) Benefit from the project</b>				✓		
1) Benefit to Laos			✓			
2) Benefit to ASEAN countries				✓		
2.1) Academic area				✓		
2.2) Application area				✓		
<b>Overall</b>			✓			

## 2. Suggestion

A set of important and necessary suggestions for further develop statistical data are shown as follow

2.1 Lao People's Democratic Republic has many important agricultural products other than rice, the reason of selecting only rice for this study, food processing and distribution, should be explained in the report.

2.2 Rice can be processed into many processed product, should explain reason why this project chose only rice milling, noodle powder, noodle, white alcohol, and Khao khob.

2.3 In the study of suitable survey method for developing major and important statistical data for food processing and distribution does not provide enough information that can be used as a guide for an actual survey operation. The document maybe prepared in a manual format such as a practical survey methodology handbook for developing

statistical data for decision and planning of food processing and distribution system.

Detail of the handbook at least should contain

- 1) Population and sample
- 2) Sampling methodology and sample size
- 3) Data collection tool (questionnaire, interview, observation)
- 4) Data collection method
- 5) Data analysis for summarizing the survey data (descriptive statistics and inferential statistics)
- 6) Error of data analysis result (estimation, hypothesis testing, prediction)
- 7) Procedure to develop a decision support system from this analysis data for related executive committees.

2.4 To be more effective, in order to publish the survey method for developing major and important statistical data for food processing and distribution for other ASEAN countries, the researcher should explain more in general on how to apply this survey methodology to suit each country group in ASEAN such as an effect of geography to food production and distribution, form of government, government agency, private sector, and other related organizations involving in the survey or use the data. This addition information will help ASEAN country to successfully adapt the methodology to suit their actual implementation.

2.5 The result from this survey should lead to a summary in Province and national level, therefore the sampling method to select the participated food processing company for each agricultural crop should use probability sampling such as multi-stage random sampling for example,

- Use province as a strata
- For each strata, set the first stage as district
- at the second stage use sub district
- at the third stage use company

Set sampling fraction of the first stage as the highest and the third stage as the lowest for example set the fraction as 1/2, 1/4, 1/8 accordingly. Data collection method should use personal interview from a questionnaire that have been passed a validity and reliability test. Before collecting a survey data, survey staffs should attend a training using a custom made practical handout for field data collection. The manual should contain frequently problem occur during the survey such as a procedure when interviewee does not well collaborate, issues with question that interviewee might not understand or refuse to answer. These questions normally related to financial or sensitive topic such as cost of production and volume of production. A survey staff cannot find the office of the sampling companies is also a common problem as the company might go out of business.

2.6 Should create a structural database from the surveyed data including the food processing and distribution for each type of product. This database can be used to promptly and effectively decide and plan the production by the related company, government agency, and private sector. The data in this database should be updated regularly. Furthermore, a satisfaction survey of the user of this database should be conducted. The topic should include both the sufficiency and quality level whether the data can be practically used or not.

2.7 The list of food processing company categorized by its raw material should be carefully collected. The data set may include company name, location, contact number or other communication channel. With this database, knowledge exchange, food processing skill, and distribution technique can be shared among the participated company. Moreover, an establishment of association among the related companies for each crop is encouraged to further develop food processing and distribution statistical data.

2.8 Should purpose a procedure and method to establish a decision support and planning system for food processing and distribution channel for each product type of each country group in ASEAN. The topic should emphasize in forecasting the trend in this industry such as

- Trend of volume, quality, and price of major raw material for each type of processed product.
- Trend of the selling price, distribution channel, and promotional system for each processed product.

2.9 Should have a project to design a set of quality indicator and set standard criteria for each food processing product in province and national level. A manual operation to assess the product according to this quality indicator also recommended.