

LAO PDR

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INTRODUCTION

Lao PDR is a landlocked country of 236,800 square km, bordered by Cambodia, Vietnam, Myanmar, Thailand and China. Relatively isolated, Lao PDR has a high degree of geographic, cultural and language diversity. Around 83% of the country is classified as rural area, thus agriculture is still considered

as the major industry in Lao PDR, contributing around 50.3% of the country GDP in 2002. Livestock sub sector contributed more than 18% of the National GDP and fishery sub sector contributed around 35% of GDP as part of livestock sub sector.

STATUS OF FISHERY IN LAO PDR

The fishery in Lao PDR is restricted to inland fisheries and freshwater aquaculture. The overall policy framework is gearing towards the sustainable use, appropriate management and protection of natural resources. In year 2002, fish accounted for about 7-8% of National GDP with the production of 87,000 tons (for

this fiscal year 2002-2003), in which Aquaculture contributed 61,000 tons. The source was received Mekong and Mekong tributaries (30%), Pond-swamps-wetlands-flood plains (43%), rice field (21%) and cage culture (6%) (Figure 1).

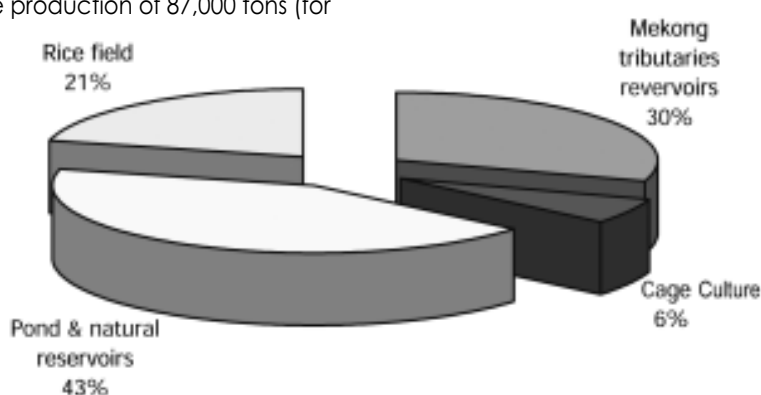


Fig 1. Fishery production in Lao PDR, 2002

The total fish production in fiscal year 2002 - 2003 is an increase as compared to previous years, mainly due to the increase in aquaculture production (Table 1).

Table 1. Fish production in Lao PDR, 2001 - 2003

	2000 – 2001	2001 – 2002	2002 – 2003
Total fish production	74,400	83,500	87,000
Fish production from aquaculture	43,900	57,000	61,000

STATUS OF FISH PROCESSING INDUSTRY

Most of fish products are domestically consumed and are marketed in fresh form, as there is no freezer facility in the country (in village level). Due to lack of facility systems, the fish price in the market is not stable, i.e. during the peak season of the catch, the fish price is very low, but during low fish catch season especially in dry season, the fish price is very high.

The fish products have been processed traditionally in household scale since long time ago. The types of fish products are: dried, fermented, smoked, fish sauce, salted, cured. Those household-industries do processing from their home with poor or little storage and maintenance. They have inadequate knowledge

on hygiene, quality control and food safety.

The fish industry in Lao PDR is relatively small, contributing to around 14% of the country's GDP in 2001. This industry is dominated by small to medium establishments, mostly household-based. There is no large or commercial-size processing establishment registered. Based on the annual statistic in 1999 - 2000, there were 800 small food-processing establishments in the country, which include fishery and non-fishery products such as bakery, beverages and other agriculture processed products. There is a trend of increasing number of fish processing establishments, mostly the small-scale establishments.

SOME MEASURES AND FOOD STRUCTURE CONTROL

In June 1991, Lao PDR established Food and Drug Administration commission (FDA) to control food. The commission consists of 11 member representatives from 9 ministries. One of those is Ministry of Agriculture and Forestry that has two representatives of DLF (vet. specialist) in the bureau in Food and Drug Department (FDD), which carry out all activities of the commission. These are responsible to manage, control the quality of a variety of food and drug that are imported and domestically produced in order to protect the population and ensuring the consumers health.

Presently, food safety have been controlled by legislative documents, that is:

- Regulation of domestically-produced food

- Regulation of food stuff circulation
- Regulation of export and import-oriented food
- Regulation of registration

GMP for HACCP application and some Lao food standards Lao have been established, based on Codex Alimentarius commission guideline, such as drinking water, fish sauce. For other food products, which Lao food standards are not available, Codex standards are used as reference document for inspection purposes.

Some measures used to control the quality of local food products are built upon the existing regulation of provision on quality. The Control of Domestic Fish Food Products (No. 048/FMC) that includes some hygiene

parameters that are required to ensure acceptable levels of microbiological safety to be met on a continuous basis will be applied in the future. This

measure will be introduced to the food factories, as a preventive measure that offers more control than only end-product testing.

PROBLEMS/ DIFFICULTIES ENCOUNTERED

As HACCP is relatively new, there are a few problems encountered in its application, such as:

- Lack of regulatory tools

Food laws did not previously exist in Lao PDR, only some regulations and decrees related to food control to address food safety problems. Currently only three provisions concerning food quality control activities issued by the Council of Prime Minister in Dec 1991 was used as stronger measure for regulating all activities in regard to food processing and safety

- Lack of facilities and qualified food inspectors
- Lao consumers are lack of information on food safety
- Lao consumers are lack of understanding on the implication of food safety and hygiene
- Fish processing establishments are lack of understanding on the relationship of food hygiene and final product quality

PROGRESS OF HACCP IMPLEMENTATION

Though HACCP is recognized as the best tool for achieving the quality and safety levels required for food products, it is still a relatively new concept in Lao PDR. To date, there are no recorded companies that implement HACCP in their establishments.

Government, however, is actively communicating HACCP among the fishery sector. Trainings are conducted for inspectors and fish processors as well as small laboratory. Technical assistance are also given for development of HACCP in processing unit, culture, handling, packing and laboratory as well as introduction of sanitary measures such as Good Manufacturing Practice (GMP), Good Laboratory Practice (GLP) and the HACCP - based system.

To date, there are three HACCP-related workshops/ trainings conducted by government, namely:

1. HACCP implementation on traditional fish products, conducted at Namngumoudom Traditional Dried Fish in Vientiane Province and Nakasang Fermented Fish Group in Champasak Province
2. On-the-job training on Fish Processing Technology, targeted to fish processors, conducted in Pakse, Thalad, Namhum
3. After the above-mentioned training, the fish processors trained farmers on fish processing technology and HACCP programmes

In accordance with these three trainings/ workshops on the HACCP implementation for traditional products, there is increase awareness on the hygiene, quality control and food safety among the food processors. In addition, this HACCP concept is applied on the transportation of fresh fish, which use the model fisherman and middleman, as well as the method to raise and catch fish.

FUTURE DEVELOPMENT

To achieve the successful implementation of HACCP, there are various programmes and activities need to be done:

- To have and improve regular inspections carried out at the processing establishment in order to ensure compliance with the HACCP requirements
- To assist the fish processing traditional and industry (in the future) in the application of HACCP in their production operations
- To provide technical assistance for development of HACCP in processing unit, culture, handling in handling site
- To improve the areas of handling of fresh fish, processing of traditional fisheries products and control of food borne trematodes (FBT)
- To provide training program for the inspectors, TOT and fish processors as well as small laboratory analysis