

要請書

BY HAND

Mr. Seiji NAGANO
First Secretary
Embassy of Japan
Road Sisangvone, Vientiane,
LAO People's Democratic Republic

Dear Sir,

**Request for JICA Project-Type Technical Cooperation Program for
FY1999**

Based on discussion on JICA Mission during its stay in Lao July 1999 regarding the above matter, I attached herewith a project proposal for Aquaculture Improvement and Extension Project on rural aquaculture development in Lao PDR for your perusal.

Your kind consideration in the matter is much appreciated.

Thank you.

Yours sincerely,



HONVISAY
Director General
Department of Livestock and Fisheries
Ministry of Agriculture and Forestry

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**A PROJECT PROPOSAL TO JICA PROJECT-TYPE TECHNICAL
COOPERATION
ON
*AQUACULTURE IMPROVEMENT AND EXTENSION PROJECT***

1. BACKGROUND:

Lao PDR has extensive water resources in the form of rivers, reservoirs and wetlands. Capture fisheries and collection of aquatic animals during the rainy season are important activities in the country and form important part of the national diet. Rice cultivation is the predominant agricultural activities and is practiced in the form of rainfed, irrigated and upland rice.

Much of the terrain of the country is a mountainous (80%) requiring the terracing of the rice field. Rice is mostly cultivated on a one-crop-per-year basis, but in some lowland areas where irrigation has been developed two-crops-per-year are possible. The country is characterized by a 6-months dry season (November – April) and an equal period of rain (May – October).

Aquatic products form a major part of the Lao diet. During the rainy season these products are collected from all forms of water bodies and wetlands such as rice paddies. During the dry season water reduces rapidly and there is a major effort to collect the remaining animals trapped in shallow ponds etc. Surplus aquatic products produced during the rainy season are preserved in a variety ways according to cultural preference and prevailing local conditions. The most common forms of preservation are fermenting, pickling, drying and smoking. The preserved products (principally fish) are then utilized through the dry season when food is relatively scarce.

Annual per capita fish consumption in Lao PDR is reported to be between 7 – 10 kg. This is lower than neighboring countries and may reflect the extreme dry season and rapid runoff of water due to mountainous topography of the country. Fish culture in ponds and rice-fields is practiced in many areas and variety of systems are used according to the agro-climatic characteristic of the area. Total aquaculture production is 38,054MT in 1996. There are still considerable areas of land that could be developed for aquaculture either as pond culture or as rice-fish culture.

2. JUSTIFICATION OF PROJECT:

Main Government Orientation for the Agro-forestry based economy is aiming at improvement and increasing the productivity of all types of agricultural commodities in order to satisfy the national food security following the population growth, the urbanization process, the improved living standard of the people, the specific market incentives and the future possibility for export.

Lao PDR, although a landlocked country thus deprived of seawater resources, is endowed with rich aquatic resources, which are concentrated mainly in the Mekong River and its 14 tributaries. There are also thousands of hectares of fishponds all over the country. Water resources currently being utilized and those with potentials for increased fishery production was estimated at about 739,000 hectares in 1994, as follow:

River Mekong	57,000 ha
Tributaries	54,000 ha
Lakes and Reservoirs (Natural and man-made)	57,000 ha
Innumerable ponds	9,000 ha
Bundled Paddy Fields	418,000 ha
Swamps	1,000 ha

Despite all of these, there has been a continuous decline in the country's capture fisheries production. With the accompanying increase in population, heavily exploited natural bodies of water and traditional methods of fish culture, there is a danger that supply of aquatic resources may not be able to augment future protein requirements of the population. In fact, current fish consumption of the people is already low, thus affecting the nutritional status as well.

The main problem in the sector is the decline in fish catch from the Mekong River and its tributaries and the very low productivity of fish culture areas. Contributory to this main problem is the scarcity in highly trained technical persons to facilitate the adoption of appropriate and effective technology in the conservation, production and utilization of fishery resources. In addition, the infrastructure for training and research is very little. Also there is a need to coordinate and support all efforts of the fisheries stations scattered all over the country.

Furthermore, while there is vast potential for aquaculture production, the said area of production cannot be utilized to the maximum if fish seed supply is only dependent on wild capture. Such a system of sourcing seed is considered not sustainable and reliable. To add to this, efforts of the segmented fish seed farms spread all over the country are uncoordinated and thus, unstable and unsustainable.

Realizing the magnitude of the problem, the government clearly spells out, as one of its priorities, the attainment of food self-sufficiency. Self-sufficiency in fish supply can be attained through the improvement of the country's capability to manage its fishery resources and to enhance production through aquaculture. In this connection, the establishment of a National Aquaculture Development Center is the major step towards the development of the fishery sector. The need for a multi-disciplinary research and training center is therefore pertinent for long term sustainable development of aquaculture in the country.

3. OUTLINE OF THE PROJECT:

3-1. Overall goal

The Project's goal is to ensure the country's self-sufficiency in fish production and to improve the nutritional and health status of the country's population.

3-2. Project purpose

The Project purpose is to formulate plans for rural aquaculture development and to improve the training and research capability of the National Aquaculture Development Center.

3-3. Output of the project

The major outputs of Project will be 1) to promote institution building at the National Aquaculture Development Center in Department of Livestock and Fisheries, 2) to promote capacity building for aquaculture technicians and extension personals, 3) to formulate development plans, 4) to develop appropriate fish culture techniques and 5) to transfer these techniques through distributing with fish seed to rural areas.

3-4. Project activities

The proposed Project is expected to serve as a vehicle for multi-disciplinary research, training, extension and seed production to tackle the important questions of aquaculture development in Lao PDR. It will also facilitate the transfer of technology, through providing training courses and extension services for the dissemination of knowledge on aquaculture. Further, the project will accomplish the following activities.

- 1) To establish the National Aquaculture Development Center
- 2) To set up the necessary equipment and facilities in the Center
- 3) To provide technical assistant to the Center
- 4) To undertake other preparatory activities for the sustainable operation and management of the Center
- 5) To carry out fisheries base line surveys all over the country
- 6) To formulate nation-wide aquaculture development action plans
- 7) To improve the training and research capability of the Center
- 8) To develop appropriate fish farming systems and technologies
- 9) To establish technology transfer systems for rural areas
- 10) To promote fish fingerlings production and to increase aquatic products

3-5. Project sites

The Project will be implemented in two sites. *The Project Management Unit* will be located at the Department of Livestock and Fisheries in Vientiane. *The National Aquaculture Development Center* will be established in Nam suang, about 45km north of the capital city of Vientiane, next to Livestock Research Center, Ministry of Agriculture and Forestry.

4. EXECUTING AGENCY:

Department of Livestock and Fisheries, Ministry of Agriculture and Forestry

5. TERM OF COOPERATION:

The duration of the Project is Five (5) years from 2000 to 2005 at least

6. ASSISTANCE REQUIRED:

The basic infrastructure requirement, i.e. office space, lands for fishponds etc., and Department of Livestock and Fisheries will meet operational costs. The assistance required from the Government of Japan covers four main areas:

- 1) Equipment for research, training, literature and transfer of technology of the activities of the center.
- 2) Funds for Japanese experts to assist in developing the center and research programs, training of Lao counterparts in advanced aquaculture technology.
- 3) Funds for upgrading present facilities to establish the National Aquaculture Development Center.
- 4) Funds for research programs, training courses and workshops.

写真



農林業省水産局
(ヴィエンチャン市内)



水産課
(ヴィエンチャン市内)
FAOのプロジェクトの
オフィスがある。



ミニッツ署名



PCMワークショップ



農村開きとり調査



ナムスワン用地視察



ノンテン水産試験場



ナムグムダム湖畔の農家
(手前かごで鶏を、軒下
で豚を飼育)



村の市場