

# Terminal Evaluation

## Africa

### I. Outline of project

- Country: Zambia
- Project title: In-Country Aquaculture Training (ICAT) in Zambia
- Issue/Sector: Agriculture (Aquaculture)
- Cooperation Scheme: In-country Training
- Division in Charge: Africa Division: Regional Department IV (Africa, Middle East and Europe)
- Period of cooperation  
Japanese Fiscal Year (JFY): 2002-2004
- Partner Country's Implementing Organization: National Aquaculture Research and Development Centre (NARDC)

#### 1.1 Background of the Project

The fishery resources from Zambian lakes, swamps, rivers and flood plains have in recent years produced about 60,000 to 70,000 tons of fish annually. This is inadequate to meet the national demand which is estimated at 120,000 tons. A Department of Fisheries inventory of 2002 showed that the country had only 6,460 small-scale fish farmers possessing 13,900 fishponds. Fish farming potential was therefore not being fully exploited and the few farmers practicing aquaculture lacked knowledge and skills in modern and appropriate aquaculture technologies. As part of efforts to develop aquaculture in Zambia, the Government of the Republic of Zambia requested the Japanese government to support service training for fisheries officers.

#### 1.2 Project Overview

The Project implemented in-country aquaculture training to strengthen the aquaculture research and extension through improvement of knowledge and skills of those engaged in aquaculture. The ICT course provided community empowerment skills to staff of water supply and sanitation service providers for promoting community involvement in water supply and sanitation management for sustainability.

**(1) Overall goal: Increased household food security and poverty reduction.**

**(2) Project Purpose/objective: Increased fish production through aquaculture.**

#### **(3) Outputs**

- 1) Research and extension strengthened through improvement of trainee knowledge and skills in aquaculture.
- 2) Farmers advised on feasible and appropriate techniques for increased fish productivity

#### **(4) Inputs**

##### **Japanese side**

Local Cost: Approximately JPY25,000,000

##### **Zambian side**

Counterparts, Land and Facilities Local Cost: USD4,920

### II. Evaluation Team

Members of Evaluation Team:

Rorum Consult

Period of Evaluation:

October 2004 – November 2004

Type of Evaluation:

Terminal Evaluation

### **III. Results of the Evaluation**

#### **1. Summary of Evaluation results**

##### **(1) Analysis on the Achievement in terms of Outputs**

1) Research and extension strengthened through improvement of trainee knowledge and skills in aquaculture. This output was achieved in that all the participants indicated that the course had met their expectations. All the participants interviewed found the course useful in that it met their expectations (79%) or exceeded their expectations (21%). The ICAT course addressed the technical problems identified by prospective trainees as constraining their performance. In the application forms prospective participants were requested to provide a brief report on aquaculture development in their areas highlighting technical problems, and social and geological situations of the area.

2) Farmers advised on feasible and appropriate techniques for increased fish productivity. This output was also achieved. Supervisors of fisheries extension officers interviewed acknowledged that extension officers are able to conduct field demonstrations in a professional manner and that the number of ponds being constructed using the modern approach has increased. This was observed at Kasaka Fisheries Training Institute (KFTI) and at a fish farm (Mayawa Agriculture) in Mumbwa where new pond construction was taking place. KFTI were able to undertake construction of new ponds as they had benefited from Highly Indebted Poor Countries (HIPC) funds. The Mayawa agriculture management acknowledged that the training provided has enabled them to make better quality but cheaper fish feeds and that the improved pond management practices have led to better control of diseases and predators. Neighboring farmers are benefiting from the trained farmers through farmer-to-farmer knowledge transfer. These are obviously some of the apparent benefits that farmers are seeing from the aquaculture course. As a result of the improved practices being taught to the farmers, farmers adopting the new methods are increasingly producing fish of better quality. According to Kabwe and Kapiri Mposhi agriculture staff, increased fish production has been recorded in both newly constructed ponds and the traditionally 'dug' ponds in which feeding supplementation has been introduced.

##### **(2) Relevance**

The training was consistent with the development and policy objectives in the agriculture sector in general and specifically in the fisheries sector, which, among others, seeks to utilize the potential for increased fish farming (aquaculture) production. The policy framework as outlined in the National Agricultural Policy (2004-2015), Agriculture Commercialization Programme and Draft National Aquaculture Strategy of 2004 recognises the potential for aquaculture and identifies, among others, the lack of quality fish feed and inadequate aquaculture extension service as being among the constraints to aquaculture development.

#### **2. Factors promoting Effects of Training**

##### **(1) Factors Concerning the Planning**

On the basis of course evaluation conducted after each topic and course, the ICAT course has demonstrated flexibility in its implementation.

##### **(2) Factors concerning implementation**

- i) The NARDC campus environment with its well-developed pond infrastructure is conducive to learning.
- ii) Timely release of funds by JICA contributed greatly to the smooth implementation of the ICAT course.
- iii) All the participants interviewed are still in the positions they were in when they were nominated for the training.

#### **3. Factors inhibiting effects of training course**

##### **(1) Factors Concerning the Planning**

- i) There is no post-training follow up to assess the performance of the course participants. The NARDC has only been in contact with those former participants who have been invited to serve as teaching assistants on the subsequent courses. The Project was affected by the governments delay in releasing counterpart funding.
- ii) Some of the former participants and some trainers felt that the course could be greatly improved if its duration was extended.

##### **(2) Factors concerning implementation**

- i) The training classroom was cited as a hindrance to effective learning. Though the classroom had been renovated, the current classroom is more of a laboratory and is not conducive for theoretical learning.
- ii) Government of Zambia's delay in releasing counterpart funds.

#### **4. Conclusion**

The ICAT programme was a success even though some of the ex-participants face logistical and financial constraints to apply the knowledge gained. The course addressed some of the problems affecting the aquaculture sub sector and consequently contributed to addressing food security and poverty reduction. It was organized in an efficient and effective manner and the

results on the ground show positive impacts. The ICAT is the only avenue available for in-service upgrading in aquaculture and it also facilitated operations of the NARDC, which would have been dormant otherwise.

## **5. Recommendations**

(1) In view of the non-availability of other in-service training in aquaculture, one of the courses should target supervising officers while two courses should follow the same approach used in the recently completed programme.

(2) JICA should consider doing away with the requirement for GRZ counterpart funding in future development cooperation given GRZ budgetary constraints.

(3) The Zambian government must consider extending support to aquaculture sector, as is the case with crop production where input support is provided.

(4) The new programme should address the concerns expressed on the length of training.

(5) In the development of the new support for aquaculture in Zambia, linkages must be developed with other donor supported programmes as some of them may provide the logistical support to enable fisheries extension officers to conduct their functions more effectively.

## **6. Lessons Learned**

(1) The effectiveness of the ICAT course would have been higher if the extension officers had the resources to fully impart the knowledge acquired to farmers in their catchment areas.

(2) The inclusion of the DACO on the panel of signatories for the ICAT account demonstrated that donor supported projects can make use of existing financial management mechanism instead of setting up parallel structures.

(3) ICAT has demonstrated that courses can be designed to suit varied target groups and can be used to facilitate transfer of knowledge from research and vice versa.

(4) Projects that provide some level of flexibility to the project management allow for decisions to be taken quickly to improve project performance.

(5) The Project formulation would have benefited if the logical framework analysis had been applied. This would have clearly identified the indicators for success.

(6) There was no post-training follow-up to assess the performance of the course participants. The impact of the training programme could have been best measured if there was an inbuilt follow-up mechanism.