

## Workshops, Training and Study Tours

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### Background

The project on “Locally Based Coastal Resources Management in Pulau Langkawi (LBCRM-PL)” was started in August 2003 under the collaborative arrangement between the Department of Fisheries (DOF) Malaysia and the Training Department of the Southeast Asian Fisheries Development Center (SEAFDEC/TD). After the Tsunami disaster in December 2004, it was decided that the project would continue until 2007, and consequently the project name was changed to “Integrated Coastal Resources Management in Pulau Langkawi (ICRM-PL)”. The ICRM-PL project was already completed by the end of 2007. While the ICRM-PL project was still operating, a number of project activities were conducted that include the baseline and monitoring surveys, rehabilitation and enhancement of the coastal resources, promotion of local business, fishing gear technology improvement, encouraging and extending locally-based resources management, and enhancing human resources capability and participation.

### Objectives

The main objectives of the activity on enhancement of the human resources capability and participation are:

1. To build awareness and consensus on the project activities as the first step to achieve the smooth implementation of the project;
2. To realize the effort towards building awareness and consensus through appropriate education and training programs; and
3. To motivate the people to generate self-regulatory management framework and organize community-based development projects on their own.

### Activities

The project conducted a number of workshops, training sessions and study tours for the local people and DOF officers.

#### *Organization and Management of Fishermen’s Group*

#### **Study Tour to Chumphon by KEN Members of Kuala Teriang**

In April, the Malaysian mission participating in the 3<sup>rd</sup> Steering Committee (SC) meeting observed with keen interest the activity on Crab Bank conducted under the project ICRM-PD in Chumphon Province, Thailand. After they suggested in the SC meeting for the possibility of transferring such technology to Langkawi, Malaysia, the meeting endorsed their proposal. Thus, SEAFDEC/TD made arrangements to send a team on a study tour, comprising five (5) fishermen representatives from KEN, an Extension Officer from the District Fisheries Office of Langkawi, and an Officer from the Extension Division of DOF Malaysia, to the project site of the ICRM-PD from 26 to 30 June 2005. The major objectives of the study tour were: (1) to study the applicability of a crab bank scheme which had been successfully implemented in Chumphon, in Langkawi; (2) to study a newly challenging activity in relation to fisheries enforcement in the demarcated zones within the ICRM-PD by the Pakklong Fishermen’s Group (PFG); and (3) to observe the Babylonia shell culture and evaluate the possibility of introducing the culture to Malaysia in the future as a lucrative small-scale culture venture. This study tour was practical and fruitful for the participants because it provided them the chance to discuss and exchange as well as share views on many issues and experiences that were commonly encountered in both areas.



### **Fishermen Workshop on Zoning Arrangement**

In the process of forming the Fishery Resources Management Committee (FRMC), two zoning meetings were held in July 2005, as indicated during the previous reporting period. Through these two meetings, the framework and structure of the FRMC were established. As a next step, the management plan was supposed to be drafted by the FRMC and submitted to DOF Malaysia for endorsement, and to be gazetted by the Minister of Agriculture. While the formulation of the management plan was ongoing, a fishermen's workshop was held from 7 to 9 March 2006 in Surat Thani, Thailand, which was participated in by officers of DOF Malaysia including a legal officer, a committee member from KEN Kuala Teriang and Kuala Chenang, and SEAFDEC/TD staff. A suggested model of a management plan was prepared by SEAFDEC/TD and presented at the workshop as part of the discussion materials. Based on this model, the advance draft of the management plan was completed by KEN after lively discussion in Bahasa Malay.

### **Workshop on Establishment of Crab Bank in Langkawi**

The training course was held on 13 June 2007 with 48 participants including 12 active members of the Crab Bank. The objectives were to organize a crab bank sub-group within KEN, to disseminate the whole concept of crab bank scheme including the procedures explaining how to apply the methodology and how to record data in the logbook, and to discuss among members the appropriate way of releasing crabs.

### **Fishermen's Workshop**

Aimed at disseminating the information on the establishment of the local enforcement center (LEC) in Kuala Teriang and its functions to the neighboring fishing communities, a fishermen's workshop was conducted on 5 September 2007. In this workshop, 32 participants including representatives from Kuala Chenang and Kilim attended. The background of formulation of the fishery resources management plan (FRMP) within the zoning arrangement was addressed by the project leader while the facilities and functions of LEC was explained by the Deputy Director of DOF Kedah to the stakeholders including those from the neighboring villages.

### **Fishermen's Workshop on the Project**

A fishermen's workshop was held on 20 December 2003 in Langkawi. It was opened by the Parliamentary for the Malaysia Ministry of Agriculture and was aimed both at enhancing local human resources and initiating the project operations. During the workshop the justification for and the implications of the project were explained to the stakeholders and the outline of the project work plan was also described. About 70 stakeholders participated, including eight women.

### **Fishermen's Training Course on the CBRM Concept**

The fishermen's training course on the basic concept of CBFM was held from 16 to 17 August 2005 in Penang, in which 10 fishermen from KEN Kuala Teriang and two neighboring villages participated. This training aimed to familiarize the fishermen with the principle, basic concept and needs for a radical change towards coastal fishery resources management, and to realize the roles of fishermen and fishing communities in the sustainable development and management of the coastal resources. In the first day, a lecture on the general concept and benefits of CBRM citing the development history in Japan and the role of fishermen in the realization of CBRM was made. Particular focus was made on the case of Kuala Teriang especially for the zoning arrangement, which was the theme that the fishermen in KEN Kuala Teriang were currently tackling on. Thereafter, a lecture on the CBRM concept outlining the approach in formulating a resources management plan by the fishing communities was made by Dr. Kuperan, a freelance consultant on coastal resources management. The lecturer demonstrated the CBRM concept in the local language and on ways of achieving pragmatic solutions. The lecture was therefore very understandable for the fishermen and the session was conducive for them. On the 2<sup>nd</sup> day, a visit to KEN Teluk Kumbar and KEN Pulau Betong was made. The former demonstrates the successful efforts of KEN in controlling the encroachment by trawlers while the latter is commended as a successful case in the deployment of effective marketing system.

## ***Local Business Development***

### **Study Tour by the Women's Group of Kuala Teriang**

From 28 April to 2 May 2004, five (5) representatives from the women's group, one officer from DOF Kuala Lumpur and an extension worker from the Langkawi District Fisheries Office visited the project site in Chumphon, Thailand with the aim of learning how to set up a cottage-scale fish processing yard and processing of value-added products, exchanging views on women's participation in community development, and studying the organization and operational characteristics of the women's activities.

In addition, the team visited the fishing villages in Phangnga Province, Thailand, where the inhabitants were predominantly Muslims and where the women play very active part in the community activities. The study tour was considered very fruitful for the participants and the innovative ideas have been implanted in the women's group activities.

### **Training Course on Surimi and Fish Ball Processing in Penang, Malaysia**

The DOF Malaysia provided a training course on surimi and fish ball processing in Penang, Malaysia from 10 to 12 May 2004 for six (6) members of the women's group.

### **Simple Bookkeeping and Accounting Management Training Course**

In the wake of the commencement of the activities of the women's group in the KEN of Kuala Teriang, the need to develop commercial management skills in the group was apparent. Since a systemized bookkeeping and accounting system is essential for sound business management of a cottage-scale activity, a training course in simple bookkeeping and accounting was therefore conducted from 15 to 16 June 2004 in Kuala Teriang for 10 leading women's group members.

In addition, since it was considered that this system is similarly applicable to the business activities of the KEN, 10 participants from the KEN committee members also attended the training. In the course, four basic ledger books, i.e. General Ledger, Materials Ledger, Product Ledger, and Labor Ledger were introduced, and the exercise for completing the books also followed. Such systemized bookkeeping was considered a new concept on handling finances by them and at the start it seemed difficult for them to comprehend. However, based on the result of the training evaluation, 75% of the participants indicated the training as "understandable".

### **Study Trip to Johor and Perak**

Study trip to Johor and Perak from 2 to 6 August 2004 was arranged by DOF Malaysia, for the participants to learn the processing of fish cracker (keropok).

### **Training Course in Accounting, Marketing and Acquiring GMP Certificate**

A training course in accounting, marketing and acquiring GMP certificate was held from 8 to 20 September 2004 in Kelantan, in which 12 members of the women's group participated. This course was also arranged by DOF Malaysia.

### **Fish Product Processing Course**

As pointed out at the 1<sup>st</sup> ICC meeting on 1 March 2005, diversification to more products lines should be promoted in anticipation of an expansion of the marketing opportunities. Coping with this need, the training course in fish processing was conducted at the Fisheries Institute of Malaysia (IPM) in Kuala Terengganu, for one week from 9 to 14 April 2005.

The training course included the basic concept of food hygiene and minced fish meat production using underutilized species of fish to produce surimi products. In this training course, 15 members of the women's group from the project area participated.



### **Training Course in Simple Bookkeeping with the Use of a PC**

After the project introduced simple bookkeeping and accounting methods aimed at maintaining transparent accounting and business transactions, the methods were considered new to them. Although they have applied this system in practice, but still the project needs to closely monitor the newly introduced system. At the 1<sup>st</sup> project Implementation Coordination Committee (ICC) meeting on 1 March 2005, this issue was discussed and DOF, Malaysia agreed to conduct a further brush-up training course in simple bookkeeping with the use of a computer (PC) for the women's group.

Thus, SEAFDEC/TD provided a simple PC and the training course was conducted in Langkawi for two days in June 2005. This training course mainly focused on the basic operation of a PC and the application of basic accounting software. In this course, only three (3) selected members participated as it was an intensive training course, and in order that follow-up and monitoring of their correct data-input will be easy.

### **Training Course on Processing Seasoned/Dried Fish**

The training course on processing seasoned/dried fish stay using the threadfin bream was arranged by the DOF and Malaysia Agriculture Research and Development Institute (MARDI). Two instructors from MARDI came to Langkawi for physical training in processing from 18 to 19 September 2005.

In the wake of the training course, the women's group planned to start the processing of the said product, but since the present existing processing yard was basically designed for processing dried products only without facilities for handling wet fish, therefore the proposal to build a new fish processing yard in another site near the sea was submitted to the JKKK (Village Protection and Development Committee) for obtaining the necessary funds. That time, it was most likely that the JKKK would provide the funds in 2006.

### **Workshop for Local Business Development**

A one-day workshop was organized by the Fish Technology and Fishermen Community Section of the DOF in Langkawi on 8 May 2006 in a bid to identify appropriate and lucrative local business. At this workshop, 12 and 8 members from KEN and KEW Kuala Teriang, respectively, participated. As a result, an idea came from the KEW to process fish rolls (spicy fish paste rolls) and for the KEN, to culture grouper in cages. As for the proposal of KEW, it would be challenged after the completion of the 2<sup>nd</sup> fish processing yard which at that time was still under construction. For the proposal of KEN, the major constraint would be allocating the required space by LADA.

### **Training Course on User-friendly Bookkeeping and Accounting System**

The training course on the introduction of a simplified "user-friendly" bookkeeping and accounting system was conducted from 4 to 5 April 2007 for members of the KEW. Since then, regular monitoring on the proper application of this newly introduced system has been continued by SEAFDEC/TD staff and DOF Extension Officer.

### ***Habitat Rehabilitation and Resources Enhancement***

#### **Short Training Course in Fish Landing Data Collection at Kuala Teriang**

To establish a science local data collection system for fish landing data in the project operation area in Kuala Teriang, a short training course for middlemen and extension officers was therefore held on 30 March 2004 to guide the participants in entering the fish landing information into the logbook which were prepared by SEAFDEC/TD in Bahasa Malay. Two researchers from SEAFDEC/TD conducted the training course which also aimed to orient the participants on the use of the logbook to record the daily fish landing data from April 2004. The participants were instructed to send the logbooks to SEAFDEC/TD regularly. As a result, four middlemen cooperatively recorded the monthly fish landing data.

### **Fish Enhancing Device(FED) Training and Installation in Langkawi, Malaysia**

In the preliminary survey conducted in July 2003, it was suggested that FADs should be installed around the ARs to interact with their respective characteristics and roles. In line with such orientation, the project team of SDI-4 in SEAFDEC/TD devised a type of FAD called FED (fish enforcing device). Thus, SEAFDEC/TD under its Resources Enhancement Project, organized a training and installation program for Fish Enhancing Device (FED) that make use of a long-lasting endurance synthetic material and new construction design. The program was conducted for the local fishermen group in Kuala Teriang, Langkawi, Malaysia from 19 to 23 December 2004.

The training was conducted by introducing the construction and performance of the newly designed FED to the 25 participating local fishermen. The installation of 4 units of FEDs around the artificial reefs was conducted at latitude 06 19'.009 N. longitude 099 36'.136 E. The installation area had a water depth of 31 m with soft muddy bottom.

### **Training and Demonstration on Construction of FEDs (Fish Enhancing Devices)**

A one-day training and demonstration was held on 19 March 2007 for the KEN Kuala Teriang fisherfolks under the technical guidance of the SEAFDEC/TD team, assisted by a local fishery officer, who served as an interpreter in Bahasa Malaysia. Twenty (20) fisherfolks participated in this activity.

### ***Fishing Technology Improvement***

#### **Mechanical Training in Langkawi**

This training program was organized from 4 to 6 May 2004 for technical persons and fishermen in the coastal fishery management project to enhance their knowledge on the setting up of a workshop and maintenance for fishing vessels with small-sized engines. Two engineers from SEAFDEC/TD conducted the mechanical training course on outboard engine maintenance where 15 fishermen participated. The training course focused on workshop arrangement, maintenance and handling procedures for engine troubles.

The training commenced with the introduction of the appropriate gasoline engine technology for ship propulsion and propeller selection. It also includes handling mechanical and measuring tools that are useful for engine repairs and maintenance. After the training, SEAFDEC/TD donated some basic repair tools and repair manuals for Yamaha outboard engines.

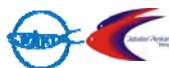
#### **Fishermen Training in Langkawi on Fishing Technology**

Training in improved fishing methods was conducted for 15 fishermen from 9 to 11 August 2004 on three types of fishing methods. Prior to introduction of these fishing methods in the project operational area, an experimental fishing to test the applicability of these methods was carried out in June and the result and potential was convincing. The new and improved fishing methods introduced were the bottom vertical longline, collapsible crab trap and *Babylonia* shell trap.

However, the interest of the participants in the training was not high at that time because it was at the midst of shrimp season and most fishermen were busy fishing at sea. It was also aggravated by poor participation due to an incidental social occasion (a funeral). Nevertheless, the fishermen greatly appreciated the crab trap fishing method among others, as it demonstrated a good catch during training compared with local trap that they used to adopt. Also, it was observed that *Babylonia* shells were abundantly caught by the traps. But since the shells are not commonly consumed in the area unlike in Thailand where the shell is marketed for as much as 200 Baht/kg, a collective effort is needed in finding the marketing outlets for *Babylonia* shells.

#### **Fishing Trial in Langkawi**

The SEAFDEC/TD fishing technology team identified seven (7) fishing methods that could potentially be introduced to the project operational area. Three of them were introduced in August after having tested their applicability while the other types of fishing gear were tested for applicability from 19 to 23 December 2004. These were: (1) Collapsible crab trap with 3 different designs (rectangular collapsible crab traps, semi-cylindrical crab traps and local crab-traps); (2) Collapsible fish traps; (3). *Babylonia* trap; and (4) squid traps.



As a result, it was found that the rectangular collapsible fish trap was the most effective among the first three different types. For the fourth type which is the squid trap, more trials were deemed necessary while the collapsible fish trap was recommended as promising. As to the Babylonia trap, it was also recommended because of its high selectivity and abundant catch subject to ensuring the availability of market outlets for the catch.

### **Training Course on Fiberglass Reinforced Plastic (FRP) Work for Local Fishermen in Kuala Teriang**

At the 1<sup>st</sup> ICC meeting held on 1 March 2003, SEAFDEC/TD suggested that a training course for repair of wooden boats that were damaged by the 2004 tsunami should be conducted, since the planned training courses for improved fishing technology were unlikely to be appropriate during that time of rehabilitation. Instead, in a meeting the representatives of KEN agreed to have such a training course as it was urgently needed by the fishermen in Langkawi. SEAFDEC/TD suggested that the training course would be on the repair of the damaged wooden boats replacing some parts with FRP materials.

After the proposal was approved during the meeting, the training was conducted for 13 trainees from 23 to 26 May 2005 at the project site. SEAFDEC/TD assigned two trainers and a coordinator. The outcome of this training was so fruitful and practical for the fishermen that another session of the training course was requested.

### **Fishing Gear Improvement in Langkawi**

The fishermen's workshop aimed to primarily review the past activities on the introduction of improved or new fishing methods, and discuss the follow-up actions was conducted on 18 November 2005 with 10 fishermen participants. In this workshop, all related activities were reviewed and the follow-up actions were proposed. In fact, the fishermen admitted that some of fishing methods introduced was effective but they were not very confident in incorporating these into their traditional fishing practices for one reason or another.

Nevertheless, they proposed to have training courses like, outboard engine repair and maintenance, bottom drift gillnet fishing methods for shrimp, and safety at sea in the working program for 2006. Also, it was proposed to consider looking at the marketing opportunities through marketing promotion campaign in tourist hotels, for Babylonia shells considering that the shells were found abundant in the project site.

### **Conclusion and recommendations**

The five (5) workshops, 16 training sessions and three (3) study tours arranged by the ICRM-PL project to promote human capacity and participation, include the following:

1. On rehabilitation and enhancement of the coastal resources, the activities included the Fish Enhancing Device (FED) training and installation in Langkawi, Malaysia; the workshop on the establishment of crab bank in Langkawi, and the training and demonstration on the construction on FEDs (Fish Enhancing Devices).
2. For the promotion of local business, the activities consisted of a study tour for the women's group of Kuala Teriang; training course on surimi and fish ball processing in Penang, Malaysia; simple bookkeeping and accounting management training; study trip to Johor and Perak; a training course in accounting, marketing and acquiring GMP; fish product processing course; training course in simple bookkeeping with the use of a PC; training course on processing seasoned/dried fish; workshop for local business development; and training course on user-friendly bookkeeping and accounting system.
3. On fishing gear technology improvement through the Mechanical Training in Langkawi, the activities included the fishermen training in Langkawi on fishing technology, fishing trial in Langkawi, training on fiberglass reinforced plastic (FRP) works for local fishermen in Kuala Teriang, and fishing gear improvement in Langkawi.



4. Under the encourage and extend locally base resources management, the activities were the fisherman’s workshop, fishermen’s training course on the CBRM concept in Penang, and the fishermen workshop on zoning arrangement which was organized for the project to support the main activity. A short training course on fish landing data collection at Kuala Teriang, a study tour to Chumphon by KEN members of Kuala Teriang, and a fishermen’s workshop were also conducted.



In the conduct of the abovementioned activities, there was always good cooperation and support from the villagers and the project staff. The feedback of such activities indicated the importance of human capacity building and participation to support the project activities under the ICRM-PL project. It should be noted that even before the start of the project, a workshop, training and study tour arrangement were conducted to make fishermen and the women understand the objective of the project scheme and improve their knowledge and experience.

The most important thing was the recommendations made by the fishermen and women from the workshop, training and study tour arrangement, which helped in achieving the objectives of the project activities. The fishermen and women were the most important variables for management because they are always in the area and know very well their area. Therefore, their ideas have been accommodated in the project’s plan.



The ICRM-PL project was fortunate because a fisherman’s group called KEN (Kumpulan Ekonomi Nelayan) or the Fishermen Economic Group (in English) already existed in the project site before the project started. Now, the name has been changed from KEN to KPSP (Fishery Resources Management Community). Coastal resources management was participated in by the fishermen’s group especially in the zoning arrangement and FED installation.

The fishermen also improved their knowledge about fishing gear technology. For the women’s group called KEW (Women’s Economic Group), their focus was on local business. They decided to produce Anchovy products, which they themselves developed and tried creating other kinds of products. Bookkeeping was a necessary element for the transparency of all transactions and this was adopted by the fishermen’s groups because the project always conducted training sessions on this to enhance their knowledge.



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