



Biannual Project Progress Report
of
Integrated Coastal Resources Management in Pulau Langkawi
(ICRM-PL)

Compiled by

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1. GENERAL ACCOUNT

The rehabilitation from the tsunami devastation has been progressed and the fishing activity has been gradually resumed to the extent of almost 50-70% compared with the pre-tsunami condition.

The fish landing data collection and marine biological survey resumed.

The movement to materialization of the zoning arrangement was accelerated with repeated meetings among the fishers concerned including neighbouring fishing villages. To realize this conception, the new institution, Fishery Resources Management Committee (FRMC) in KEN Kuala Teriang, was formed.

The fishermen training course on CBRM was conducted in Penang including the study tour.

The volunteer activity by the women's group maintains their high morale in contribution.

The training course in processing seasoned/dried fish satay was conducted .

Strengthening of the accounting capacity with the women's group was further focused with introduction of computerized account and bookkeeping system.

The fishermen's workshop on reviewing the activity in introduction of improved fishing methods was made.

The environmental study on ARs / FADs was conducted to monitor the habitat improvement by installations of those.

The 5th ICC meeting was held.

2. ACTIVITIES

After experiencing devastation by the tsunami on 26th December 2004, the fishing activity was once collapsed to a miserable extent. Thanks to considerable amount of efforts injected for rehabilitation by both the public and private sectors, the fishing activity has been resumed gradually in spite of its handicapped condition. Consonant with such reactivation in fishing activity, the project activity has been resumed as seen in the annual activity monitoring sheet of **Annex 1**.

2.1. Monitoring survey

The marine resources monitoring survey which had been suspended since 26th December 2004 when the tsunami assaulted resumed from August. To reactivate the activity, the TD team composed of a researcher and an assistant research and an assistant researcher from FRI, Penang, visited the site and made an arrangement for regular data collection. According to the past experience of data collection, the project realized it impractical to rely on fishermen to fill up the logbooks. In effect, one educated middleman used to fill all logbooks on behalf of fishermen voluntarily, but an accurate data collection can not be expected in this way. Taking this fact into account, the project made an arrangement to recruit a part-time enumerator to fill

up all the data sheets and logbooks and send to the DOF extension officer for forwarding to SEAFDEC/TD for data processing. The detailed description in this activity is seen in the report attached in **Annex 2**.

The follow-up marine resources survey was jointly conducted by the team of SEAFDC/TD and FRI, Penang on 15-17 November. This survey is expected to be repeated every 4 months. During this survey, 25 fishermen's and 6 middlemen's logbooks were collected as envisaged. This exercise covered three months from August to October, during this season almost all fishermen were exclusively engaged in shrimp fishing with trammel gill net. Also, interviews with fishermen for the purpose of collecting information on numbers of fishing gear used and period and duration of fishing operation were made with the active fishermen. The catches on the days of 15-17 November were sampled for recording the length distribution and average weight.

The results of the fish landing survey and the marine resources monitoring survey conducted in 2004 were analyzed and compiled in a report for publication in July. The analytical data included in this report would constitute the base of monitoring the movement of marine resource dynamics along with efforts in introduction of the new or improved fishing gear and also in resources management and enhancement.

2.2. Encourage and extend the CBRM concept

Zoning arrangement

The movement toward materialization of the zoning arrangement conception has accelerated by far in this reporting period. It has gained impetus. It was impressed to hear from the fishers that the conception of zoning and the co-management framework were motivated by the study tour in Chumphon, Thailand, where the fishermen were exerting their effort to place the self-regulated community base coastal resources management conception into reality with strong supports by the DOF Thailand.

In the wake of the 1st zoning arrangement meeting held on 22nd March, the 2nd meeting was held on 30th June in Langkawi in which the representatives from neighbouring villages, i.e. Kubang Badak and Kuala Chenang, and the authorities concerned with this issue participated. The detailed discussion was held in this meeting on the mode of realization of demarcated zone for the benefit of Ken Kuala Teriang as described in the attached report of **Annex 3**. The meeting concluded in the resolution that (1) the zoning area should be reverted to the one that SEAFDEC/TD originally suggested as seen in **Annex 4**, (2) both the neighbouring villages were willing to cooperate with this movement, (3) to promote this approach the zoning arrangement an appropriate institution should be established (4) some fishing gear were listed as the banned ones in the proposed zoning and (5) the legal framework should be worked out by the DOF.

Following the above resolution, the internal ad-hoc meeting among committee members of KEN Kuala Teriang and representatives of the two neighbouring villages; i.e. Kuala Chenang and Kubang Badak, was arranged by the District Fisheries Office, Langkawi, on 9th July. In this meeting, the new institution called **JAWATANKUASA PENGURUSAN SUMBER PERIKANAN KEN, KUALA TERIANG, LANGKAWI** (Fishery Resources Management Committee KEN Kuala Teriang) was established to push forward the zoning arrangement conception. The committee members were also elected including representatives from the

neighbouring villages. The detailed description of this meeting is seen in the attached minutes of meeting in **Annex 5** which is the translated version from the original in Bahasa Malay.

The 3rd zoning arrangement meeting was held on 17th November in Langkawi. The detailed discussion is dealt at length in the attached Minutes of the 3rd Zoning Arrangement Meeting of **Annex 6**. In this meeting, the future action plan was thoroughly discussed and the respective role in formulation of management plan and the draft agreement in devolving the fishery resources management function to the resources users were defined.

As stated in 2.4. in detail, the fishermen training course in the basic concept of CBRM was held on 16-17 August 2005 in Penang in which 10 fishers were participated.

Stimulated by the study tour to the crab bank scheme carried out by the Pakklong Fishers' group in Chumphon in June 2005, the plan to establish the similar one within KEN Kuala Teriang became the central issue. The negotiation with the Langkawi Development Authority (LADA) was initiated for a bid to acquire the necessary space for installation of a crab spawning cage. The LADA gave a positive response to provide the area near Pantai Kok.

2.3. Encourage local businesses

Aimed at improvement of the transparent and effective bookkeeping and accounting system, the simple computer set was provided by TD and the basic manipulating practice was first trained by the extension officer of DOF at the spot. Thereafter, the training course in use of accounting software was to be conducted by the specialist (the C/P supplier), but it was not materialized in this reporting period.

Following to the progressive activity by the women's group in spite of suffering from the tsunami disaster in the previous reporting period, they continue being active. Their voluntary participation is highly commendable. The member has increased to 17 from 14 and the group number is also increased to 5 from 4.

The training course on processing seasoned/dried fish satay in use of fish like threadfin bream was arranged by the DOF and Malaysian Agriculture Research and Development Institute (MARDI). The 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 same processing, but the presently existing processing yard was basically designed for processing only dried product without handling wet fish, and therefore the proposal to build a new fish processing yard in another site near sea was submitted to the JKKK for obtaining the necessary fund. It is most likely that the JKKK would provide the fund in 2006.

The DOF Malaysia provided the necessary equipment like a strainer and a digital weighing scale up to 15Kg to the women's group in July.

Expansion of the marketing channels for the products is one of the main concerns with the women's group. The Fisheries Institute in Malaysia (IPM) is assisting in looking into the possibility to distribute the products in KL and also opening a stall in the new jetty in Pera State.

The following is the accounting figures with the women's group activity.

**Accounting on Expenditure and Income of women's group in 2005
(in RM)**

| Month | B/F | Income | Material | Salary (share) | Gross income |
|--------------|---------|---------|----------|----------------|--------------|
| March | 183.0 | 186.5 | 270.0 | 0 | 99.5 |
| April | 99.5 | 4,976.5 | 253.0 | 750.0 | 4,073.0 |
| May | 4,073.0 | 603.0 | 635.0 | 0 | 4,041.0 |
| June | 4,041.0 | 1,559.0 | 862.9 | 0 | 4,737.1 |
| July | 4,737.1 | 2,129.5 | 1,479.0 | 0 | 5,387.6 |
| August | 5,387.6 | 771.0 | 618.4 | 0 | 5,540.2 |
| September | 5,540.2 | 230.5 | 215.0 | 0 | 5,555.7 |
| October | 5,555.7 | 925.5 | 79.5 | 2,840.0 | 3,561.7 |
| November | 3,561.7 | | | | |
| December | | | | | |
| Total | | | | | |

The level of each share is still marginal with the range of RM470.8 per head for 8 months equivalent to RM58.8 per month. However, it is evidently true that the working morale in voluntary participation to the group activity is very high. This is more encouraging than anything else.

Some discussions were made at the ICC meetings on prospective fisheries related local business other than the women's activity, but no concrete idea was emerged after the cage culture business was proposed. A voice was heard on promotion of the eco-tourism, but no practical approach was made. Perhaps, they might have concentrated their attention onto rehabilitation of fishing industry only after the tsunami and could not afford to think of other business during this reporting period. It is expected to deploy this activity in 2006 onward.

2.4. Enhance human resources capacity building and participation

The training course in the CBRM concept was organized in Penang on 16 -17 August with 10 participants from KEN Kuala Teriang and two neighbouring villages. The main objectives of the course lie in for the fishermen to familiarize with the basic concept of the CBRM approach and to realize the roles of fishermen and fishing communities in the sustainable development and management of coastal fishery resources. In the first day, the general concept and benefits of the CBRM was lectured citing the development history in Japan and the role of fishermen in realization of CBRM was demonstrated focusing 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 to. Thereafter, lecturing on the CBRM concept outlining the approach to formulate the resources management plan by the fishing community was made by Dr. Kuperan, a freelance consultant on costal resources management. The lecturer demonstrated the CBRM concept by the local language and in a way of pragmatic solution, and therefore it was very understandable for the fishers and conducive. On the 2nd day, the visits to KEN Teluk Kumbar and KEN Pulau Betong were made. The former is known as the successful case that the encroachment by trawlers has been controlled, while the latter is commended as the successful

case in deployment of effective marketing system. The detailed findings and results of the training course is described in the attached report on the CBFM Training Course of **Annex 7**.

The fishermen's workshop to review the activity of fishing technology improvement was conducted on 18 November with participation of 10 fishermen. Based on reviewing the activity in 2004 and 2005 in this field, the future follow-up action was discussed in a way of participatory approach.

2.5. Fishing gear technology improvement

Introduction of remaining three types of improved or new fishing method was planned to take place in 2005. However, due to the tsunami calamity it was postponed indefinitely until the fishing force has sufficiently recovered to the extent as it was. Instead, responding to the urgent need proposed by fishermen, the boat repairing training course was conducted in May. Meantime, the fishermen expressed in the 5th ICC meeting in August that one of the possible fishing methods, i.e. squid trap fishing, to be introduced was found effective but it would cause conflicts against the other prevailing fishing methods like bottom drift net, and therefore it was decided not to be introduced in the project operational area.

The fishermen's workshop to primarily review the past activity on introduction of improved or new fishing methods and to discuss the follow-up action was conducted on 18 November 2005. In this meeting, all activities in this respect were reviewed with participated 10 Fishermen and the follow-up action was proposed. In fact, the fishermen admitted that some of fishing methods introduced were effective but they were not positive in incorporating these into their traditional fishing pattern for one reason or another. Nevertheless, they proposed the training courses like, outboard engine repair and maintenance, bottom drift gillnet fishing method for shrimp and safety at sea in the working program of 2006. Also, it was agreed to look into marketing opportunities through marketing promotion campaign with tourist hotels for Babylonia shells which were found abundantly in the project site. The detailed description of this workshop is seen in the report on Fishing Gear Improvement in Langkawi of **Annex 8**.

2.6. Rehabilitate and enhance coastal resources

The environmental studies on artificial reefs installation site was carried out on 23-24 November by the joint team of DOF Malaysia and SEAFDEC/TD (SRI-4) in an effort to study the marine environmental change occurred around the ARs installed by the LKIM in 2003. The research was extended to benthos and fish larvae sampling, bottom soil grain size measurement and visual observation by diving. Through this study, it was observed that enormous amount of various benthos and pelagic fish were aggregated around the FADs and its effectiveness in improving the fish habit was demonstrated. The report on this study is yet to be released.

In the fishermen's workshop in November, a proposal of planting mangrove trees was discussed. It was informed that the Draining and Irrigation Department (DID) was also planning to plant mangrove trees along the coast in Langkawi. After discussions, it was agreed to look into the possibility to work jointly with the DID for the mangrove reforestation program in Kuala Teriang.

2.7. Implementation Coordination Committee (ICC) meeting

The 5th ICC meeting was held on 15th August in Langkawi. In this meeting, the discussion was centered to the on-going zoning arrangement and rehabilitation from the damages of tsunami. With regard to the zoning arrangement, the outcome of the 2nd zoning arrangement meeting was reported and the contribution by SEAFDEC/TD in formulation of the management plan of the demarcated area was proposed. The detailed description is made at length in the attached report in **Annex 9**.

2.8. Steering Committee (SC) meeting

The proposed 4th SC meeting was postponed to February 2006 due to the timing constraint in arrangement.

2. OUTCOMES

The major outcomes of the project activities during this reporting period are:

Baseline surveys

- The fish landing data collection system resumed.
- The monitoring marine resources survey data was obtained.
- The analysis of fish landing and marine resources data in 2004 was completed and published.

Encourage and extend locally-based fishery resources management

- The consensus to the new concept of zoning arrangement among fishermen concerned was obtained through repeated meetings.
- To realize the above conception, the new institution, Fishery Resources Management Committee (FRMC), KEN Kuala Teriang, was formed.

Promotion of fish based businesses

- The computerized bookkeeping and accounting system was introduced.
- 15 members of women's group were trained in processing dried/seasoned fish satay.
- The DOF contributed some fish processing and marketing equipment to the women's group.

Enhance human resources capability

- Ten fishermen were trained in the basic CBRM concept.

Fishing gear technology development

- Fishermen realized the impact of introduction of improved or new fishing methods.

Rehabilitation and enhancing coastal resources

- The impact given by the ARs/FADs was observed.
- An idea on reforestation of mangrove was brought forward.

Committee meetings

- The 5th ICC meeting was held.

4. MAJOR CONSTRAINTS

It is a discouraging fate that the budget for 2006 has to be reduced by 40% due to the financial constraint by the donor, Japanese Trust Fund. Under these circumstances, it is inevitable to review and re-arrange the whole activity lines consonant with the priority. This issue should be thoroughly discussed in the next 4th SC meeting.

5. THE WORK PLAN FOR THE NEXT REPORTING PERIOD

The work plan to be executed in the next reporting period from January to June 2006 is as follows.

Baseline / monitoring survey

- Continue fish landing data collection
- Analyze and compile the annual data for 2005
- Continue marine biological survey
- Analyze and compile the annual data for 2005
- Impact survey for installed FEDs/ARs
- Analyze and compile the annual data for 2005

Encourage and extend the CBRM concept

- Finalize the fisheries management plan (FMP)
- Submit the FMP to DOF Cambodia for consideration
- Workshop on implementation of the FMP and zoning arrangement
- Identify need to organize the sub-fishermen's group
- Prepare setting-up a crab bank scheme

Promotion of fish-based businesses

- Study on diversification of the products line (IPM)
- Expansion of the cottage scale fish processing yard (DOF)
- Marketing promotion (IPM/LADA)
- Training in improvement of bookkeeping and accounting
- Training in new processing technology (IPM)
- Identify alternative business opportunities by KEN

Enhance human resources capability and participation

- Conduct a training course in strengthening management of KEN/FRMC

Fishing gear technology improvement

- Follow-up training course if needs arise.

Rehabilitate and enhance coastal resources

- Installation of ARs/FEDs
- Impact survey by installation of ARs/FEDs
- Formulate a mangrove reforestation plan with DID
- Implementation of the above plan

Committee meeting

- 4th SC meeting
- 6th and 7th ICC meetings

6. REPORTS PREPARED

Reports and documents prepared under the project during to this reporting period are listed below.

| <u>No.</u> | <u>Title of the report</u> | <u>Name of author</u> | <u>Date of issue</u> |
|------------|---|-------------------------|----------------------|
| 01. | Marine resources monitoring in Langkawi in 2004 | Penchan L. | July 2005 |
| 02. | Marine resources monitoring survey in Langkawi | Penchan L & Saivason K. | August 2005 |
| 04. | Report on fishing gear improvement in Langkawi | Isara C. | Nov. 2005 |
| 05. | Travel report to Langkawi (14 -18 November) | Sumitra R. | Nov. 2005 |
| 06. | Follow-up Womens' Group activity in Langkawi in 2005 | Sumitra R. | Nov. 2005 |
| 07. | Marine resources monitoring survey in Langkawi (II) | Penchan L & Saivason K. | Nov. 2005 |
| 08. | Understanding reached on zoning arrangement between DOF and fishermen | Rahman A.W. | July 2005 |
| 09. | Minutes of ad-hoc zoning arrangement meeting | Sabidah B.S. | Nov. 2005 |
| 10. | Minutes of 3 rd zoning arrangement meeting | Etoh S. & Rahman A.W. | Nov. 2005 |
| 11. | Report on fishermen's training course in CBRM concept in Penang | Sumitra R. | Aug. 2005 |
| 12. | Minutes of 5 th ICC meeting | Etoh S. & Rahman A.W. | Aug. 2005 |
| 13. | Biannual project progress report (Jan-June 2005) | Etoh S. | July 2005 |

| Activities | Jan. | | Feb. | | March | | April | | May | | June | | July | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | Remarks | | |
|---|-------|---|------|---|-------|---|-------|---|-----|---|------|---|------|---|------|---|-------|---|------|---|------|---|------|---|---------|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | 1 | 2 |
| 2.1.5 Study and prepare for establishment of Crab Bank | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.1.6. Operation of the Crab Bank | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2. Awareness building on basic concept of CBRM | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2.1. Training course in the basic approach for CBRM | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2.2 Study tour to observe a model case of CBRM approach | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Encourage local business | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1. Diversification of products produced by women's group | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1.1. Feasibility study for introduction of new types of product | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1.2. Training in new processing technology | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1.3. Marketing promotion | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.2. Improvement of group management skills | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.2.1. Follow-up training course for book keeping / accounting | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.2.2. National workshop on women's participation to group activity | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.3. Expansion of fisheries related business for the community (KEN) | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.3.1. Study and identify alternative business opportunity | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.3.2. Take a relevant step for realization (to be more specific once measurements are determined.) | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Enhance human resources capacity building and participation | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1. Enhance capacity building for CBRM concept | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1.1. Training course in the basic approach of CBRM | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1.2. Study tour to observe a model case of CBRM approach | Plan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actu. | | | | | | | | | | | | | | | | | | | | | | | | | | |

Annex 2

Report on Marine resources monitoring survey in Langkawi

Penchan Laongmanee
Saivason Klinsukhon
August 2005

The marine resources monitoring survey in Langkawi was conducted during 2-4 August 2005. The prospectus of the survey is in Annex 1. The survey was carried out aimed at ensuring the sustainability of available marine resources, especially around the ARs and FADs after introduction of improved fishing efforts in the project operational area, and it was focused on monitoring species composition and abundance of marine resources in the target area.

Activity 1: Logbook

On 2 August 2005, We had discuss among working team Ms. Penchan, Ms, Saiwasan , Ms. Sabena Binti Saleh (Fisheries extension officer, Langkawi) ,Mr. Malik (Research assistance, Fisheries research institute in Penang (FRI)) about the fisherman and middle man logbook at fisheries office in Langkawi .

Logbooks from year 2004 show that all of them were recorded by one person (Mr. Azman Chepa, Middle man and fisherman). We worried that it is too hard work for him. Malik advice that we may give him some incentive. In case of FRI, they pay about 50 RM/month for volunteer middle man that recoded logbooks. Penchan do agree with the incentive for Azman. She will discuss with project manager for the possibility to give incentive. We agree to not take about this matter to Azman till the budget had approved. We also discuss about copy received from middle in stead of ask them to record the logbook. Sabina said that we have to discuss with them.

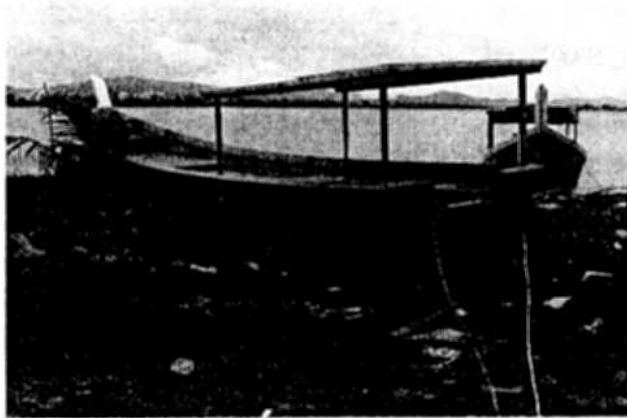


Following is discussion of working team with middle man (Mr. Azman Chepa) at Kuala Terieng. On 2 August, only Azman Chepa go to landing site in Kuala Terieng. Because, in the morning there are strong winds, no fisherman go to the sea. We confirmed that all information in the year 2004 logbook was recorded by him. The other doesn't want to do this work. For copying received, he is welcome. Sabina said we may have problem with the other middle man. The best way is ask Asman Chepa to record for the other middle man.

Azman do agree to record all logbooks. For the year 2005, everyone agreed that the resource monitoring will conduct with shrimp trammel net. It is the majority fishing gear in Kuala Terieng and fisherman operated all year round. We also discuss about revise fisherman

logbook form, since the hand writing is difficult to read. Azman and Malik listed high catch composition in the logbook, Azman just write weight, when he record. Sabena will be a logbook collector. Three month of middle man logbook and 30 copy of fisherman logbook were given to Azman.

After Tsunami disaster, only three middle man continue to buy catch in Kuala Terieng; Azman Chepa, Osman Hamad and Tan Bek Yeow. Now, Azman and Tan have to share landing site while Osman doesn't have certain site. Number of fisherman also decreased. Until now, about 50% of fisherman can go to the sea. Some of them don't have boat yet; some have boat but doesn't have engine or fishing gear.



New boat after Tsunami, explorer type

Activity 2: Interview fisherman and sampling their catch

Fishermen were interviewed for sizes of their fishing boats, horse power, types of fishing gear, sizes or numbers of fishing gear, fishing ground and period of fishing operation.

The catch was sampled for the length distribution and average weight. In this survey, fork length were punch for the fork shape tail fish, total length for the others and width for crab. The catch composition was also recorded. Unfortunately some catch (small size) were thrown to the sea before arrive to the fishing port.

| <u>Date</u> | <u>No. of questionnaire</u> | <u>Remark</u> |
|-------------|-----------------------------|--|
| 2 Aug 05 | 0 | Heavy rain and strong wind, no fisherman go to the sea |
| 3 Aug 05 | 8 | 5 sale to Azman, 3 sale to Tan |
| 4 Aug 05 | 8 | |

Average weight of main catch

| Species | Average weight (g) |
|-----------------------|--------------------|
| Indo-Pacific makrel | 52.9 |
| Western King Prawn | 33.3 |
| Haetau | 12.5 |
| swimming crab(male) | 173.5 |
| swimming crab(female) | 175.5 |
| mask crab(male) | 161.3 |
| mask crab(female) | 147.8 |
| tiger croaker | 99.3 |
| croaker | 85.2 |

Minimum, maximum and average CPUE of shrimp trammel net during the survey were 0.20, 1.31 and 0.60 kg/net/hour, respectively



Mr. Malik is interviewing fisherman



During fish sampling

Prospectus

Marine resources monitoring survey in Langkawi during 2-4 Aug 05

1. Background

The Marine resources monitoring survey in Langkawi had started since June 2004. It was planned to ensure the sustainability of available marine resources, especially around the ARs and FADs after the introduction of improved fishing efforts in the project operational area. The activity including interviewing fisherman for fishing ground, fishing boat and fishing gear information and fish sampling for species composition and length distribution and distribute fishing gear logbook to fisherman and catch report book to middle man. All those activities had been conducted until the Tsunami event on 26 December 2004. After that almost of fishing boat and fishing gear were damage, data collection was not possible. Now, the fishing activities were recover therefore the marine resources monitoring activity should be restated.

2. Expected outcomes

The following outcomes are anticipated in the wake of marine resources survey activities.

- ① The current level of marine resources abundance around FADs in Langkawi
- ② The species composition of each fishing gear and length distribution of importance species in Langkawi is identified.

3. Study team

The study is carried out within the collaborative project framework between SEAFDEC/TD and DOF Malaysia and the study team is composed of the following members;

SEAFDEC/TD

1. Penchan Laongmanee
2. Saivason Klinsukhon

DOF Malaysia

1. Co-researcher

4. Activity itinerary

- | | |
|----------|---|
| 1 Aug 05 | - Leave Bangkok for Langkawi - Discuss with DOF Malaysia staff for tomorrow program |
| 2 Aug 05 | - Data collection - Discuss with middle man and DOF staff for improving logbook system |
| 3 Aug 05 | - Data collection - Prepare new logbook |
| 4 Aug 05 | - Data collection |
| 5 Aug 05 | - Leave Langkawi for Bangkok |

Annex 3

Understanding reached on zoning arrangement between DOF and fishermen

Abdul Rahman Abdul Wahab

The following is the understand reached at the 2nd Zoning Arrangement Meeting held in Langkawi on 30th June 2005.

Proposed areas for zoning

The meeting agreed on the early proposal of the demarcated zone made by Mr. Etoh and noted that further expansion of the zone in future would not be impossible depending on the level of its success.

Fishing gear allowed and not allowed

The meeting listed a number of fishing gears allowed and not allowed to be operated in the said zone. The long list is attached with local and common names.

Traditional gears including gill net, hook & lines and all types of traps except those intended to catch squid are allowed to be operated in the zone area. All sedentary fishing gears and Anchovy Purse seine are restrained to be operated.

Licensing of FADs

The legal section of Fisheries Department was instructed to study from the legal point of view, the possibility to license Fish Aggregating Device (Unjam). This move is to ensure the element of ownership of FADs are covered under the existing legal framework (Fisheries Act 1985) so that each individual FADs is legally protected from any possible physical damages done by intruders.

Note : The DOF has not yet so far initiated any move to license FADs under the existing legal framework. This is going to be the first attempt and the test case for the DOF and for the target beneficiaries in this area as the ultimate goal of the zoning arrangements is to protect the FADs and conserve the marine resources.

Based on the interpretation of the Fisheries Act 1985, FADs are fit to be licensed as a stand-alone fishing gear. In this connection, FADs owned by a group of fishermen can be licensed individually.

Artificial reefs will not be licensed.

Legal framework

The meeting agreed that there is a need to establish a specific regulation in view to accommodate the requirements to license FADs.

Rights to fish

The consultation agreed that entry of fishermen from outside to fish in the zoned areas should not be restricted as long as they do not encroach to the individually licensed FADs.

Licensing of FADs

The DOF will start to formulate the set of procedures and condition of license to legalize FADs.

Enforcement function

The meeting acknowledged the importance for the organization to address the function of enforcement in addition to existing function carried out by the DOF.

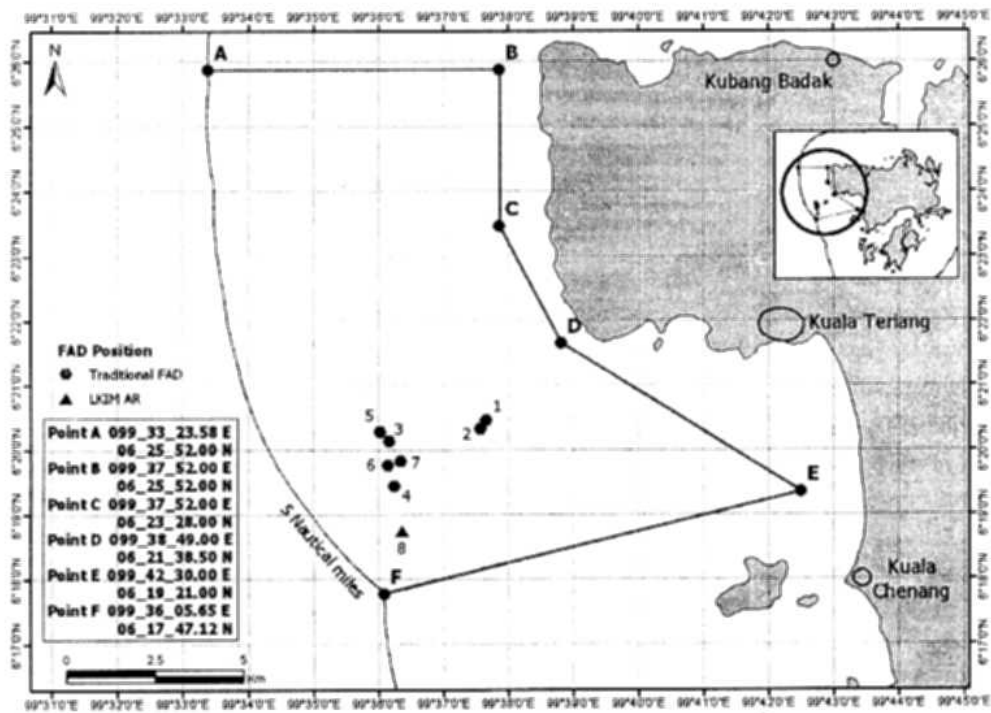
Fishermen institution

The meeting raised concern on how could the future fishermen institution be linked and recognized by the existing institution namely Fishermen's Association, Village Security and Development Committee (JKKK) etc. This issue should be deliberately addressed so as to avoid unhealthy competition among those. The meeting subsequently proposed that the institution to be headed by the chairman of KEN Kuala Teriang and representatives of the neighboring villages namely Kuala Chenang and Kubang Badak, JKKK from Kubang Badak and Kuala Chenang, Fishermen's Association .

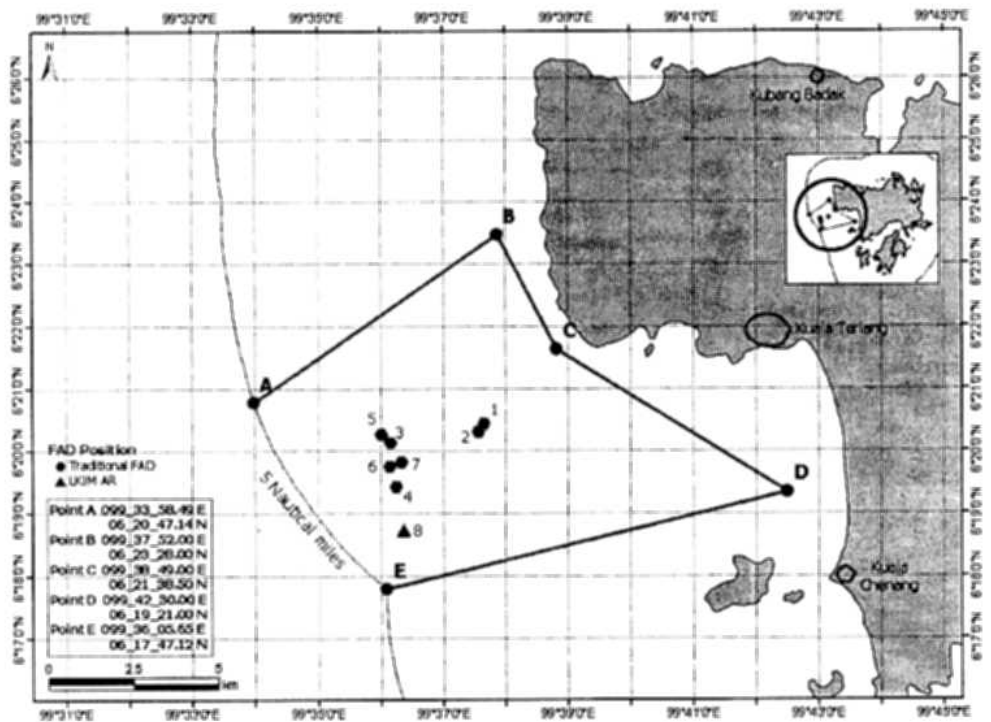
The institution will not be legally bonded and to be named as J/K Pengurusan Projek (Project Management Committee) and to be supported financially by KEN Kuala Teriang. The Committee will be overseen by a Coordinator Committee and to be headed by State Fisheries Director, assisted by the Secretariat , that is the Head of Langkawi Fisheries Office, LKIM, Marine Department, Fishermen Association, LADA (Langkawi Development Authority), Langkawi District Office. Among the TOR of the committee is to address problem and provide solutions accordingly. NGO's may also be included in the committee. The remaining member of the institution would be decided upon by the fishermen.

Annex 4 Zoning Arrangement Maps

1. Expanded zoning demarcation (proposed by fishermen)



2. Originally suggested zoning demarcation



Annex 5

Minutes of Ad-hoc Zoning Arrangement Meeting

Date: 9.7.05

Place: Meeting Room, KEN Kuala Teriang, Langkawi

Time: 3.00 pm

Attendance

1. Mdm Sabidah - Representing, District Fisheries Head, Langkawi
2. Mahadhir b. Ibrahim - Chairman of KEN
3. Hj. Fadzil b. Hj. Din - Secretary of KEN
4. Che Pa b. Bakar - Treasurer of KEN

(And attended by 34 participants as attached)

Speech by Chairman

The chairman, Mr. Mahadhir b. Ibrahim, welcomed all the participants especially Mdm Sabidah and the representative from Cenang Village. The chairman stated that he was very happy to see the commitments and seriousness of the participants in wanting to work together to safeguard and protect the fisheries resources in the district of Kuala Teriang.

The chairmen then briefed the participants regarding the visits made to Chumporn, Thailand with KEN Kuala Teriang members and noticed how the community there worked hand in hand and cooperate with the DOF and carry out the enforcement activities as a voluntary job. The chairman thanked Mdm Sabidah who is very dedicated officer and gives assistance to develop KEN in Kuala Teriang. He also thanked the district DOF, state DOF and DOF headquarters in promoting KEN Kuala Teriang as a modal project to others.

Speech by Mdm Sabidah

Mdm Sabidah thanked the chairman and KEN members for inviting her to this meeting hereafter named "**FISH RESOURCES CONTROLLING COMMITTEE OF KUALA TERIANG**". She stated that the DOF and SEAFDEC always gives assistance and aids whenever need arises. She also stressed the proposals made for zoning activities for the effectiveness and the protection of the marine resources by the community themselves. The existing FAD's are to be managed by the fishermen themselves. Also noted that following the meeting at the district office where was attended by the chairman of KEN and Mr. Lazim Hashim mentioned fishing boats such as trawlers, anchovy purse seines, bottom gill-net (operated at coral bed) and purse seines using light be banned from encroaching and fishing at the demarcated zones. It is hereby hoped with the establishment of this committee we can protect and work towards easy implementation and protection of fisheries resources.

Establishment of The Committee

The participants of the meeting agreed unanimously and appointed Mr. Mahadir Ibrahim (KEN Chairman) as the Chairman of the newly formed committee. Hj. Fadzil Baharuddin as the Secretary of KEN and Che Pa b. Bakar as the Treasurer. Mr. Abdullah b. Osman, the

chairman of JKKK (Village Protection and Development Committee) as the committee member automatically.

Appointment Process of The Committee

Mr. Azmi Bakar suggested Mr. Morad Osman and supported by Mr. Junus Salleh. Mr. Lazim Hashim suggested two names ie. Mr. Azmi Hasim representing Kuala Muda and Mr. Rozi Ismail representing Kg. Ranggut and supported by Mr. Hassan Serat. Mr. Yahya Puteh suggested Mr. Azmi bakar and supported Mr. Yahya Puteh and supported by Mr. Lazim Hashim. Mr. Pa Bakar suggested Mr. Lazim Bakar and Supported by Mr. Murad Osman. The event also agreed to appoint representative from pantai Cenang Mr. Said Bulat and Ismail Hamid and representative from Kubang Badak Mr. Jamil Sirat Rodzi Salleh. Mr. Che Isa represent Batu Ara village and Mr. Shafie Manaf represent Kuala Melaka village.

The result of the selection of the committee members is as follows:

1. Chairman: Mr. Mahazir Ibrahim
2. Secretary: Hj. Fadzil Hj. Din
- Member
3. Representative from JKKK
 - Mr. Abdullah b. Osman JKKK Kuala Teriang village
 - Mr. Che Isa b. Ibrahim JKKK Batu Ara - village
 - Mr. Shafie b. Manap JKKK Kuala Melaka - village
4. Representative from Kuala Cenang
 - Mr. Ismail b. Hamid
 - Mr. Said b. Bulat
5. Representative from Kubang Badak
 - Mr. Ismail b. Sirat
 - Mr. Radzi b. Bulat
6. Representative of from KEN Kuala Teriang
 - Mr. Che Pa b. Bakar
 - Mr. Murad b. Hasan
 - Mr. Azmi b. Bakar
 - Mr. Rozi b. Ismail
 - Mr. Yahya b. Putih
 - Mr. Lazim b. Hashim

Other Matters

Mr. Yahya Putih stressed that the existing fisheries laws and regulations be implemented seriously by the DOF. Lastly the chairman thanked all participants and hoped whatever activities planned will take off and be a success with the cooperation of all the participants here and be always monitored by the DOF.

The meeting ended at 6.00 pm.

List of Participants:

- | | | | |
|-----|------------------|-----|--------------------|
| 1. | Ismail b. Taib | 2. | Hashim b. Ismail |
| 3. | Azmi b. Bakar | 4. | Che Azmi b. Yaakob |
| 5. | Morad b. Osman | 6. | Ahmad b. Hamid |
| 7. | Che Wan b. Saad | 8. | Yahya b. Putih |
| 9. | Oisman b. Awang | 10. | Bakar b. Saad |
| 11. | Dali b. Morad | 12. | Azmi b. Nayan |
| 13. | Mat Alin b. Ali | 14. | Ramli b. Senapi |
| 15. | Ismail b. Musa | 16. | Rozi b. Ismail |
| 17. | Roslan b. Musa | 18. | Ramli b. Ahmad |
| 19. | Osman b. Ahmad | 20. | Saad b. Sirun |
| 21. | Muhammad b. Long | 22. | Lazim b. Hashim |
| 23. | Harun b. Osman | 24. | Salmi b. Hashim |
| 25. | Hashim b. Din | 26. | Hassan b. Sirat |
| 27. | Harun b. Wahab | 28. | Musa b. Taib |
| 29. | Ismail b. Hamid | 30. | Basir b. Ishak |
| 31. | Said b. Bulat | 32. | Saidi b. Abdullah |
| 33. | Yunus b. Salleh | 34. | Shafie b. Abdullah |

Drafted by : Ms. Sabidah Bt. Saleh
(in Bahasa Malay)
Translated by: Mr. A. Krishnasamy
(24 November 2005)

Annex 6

Minutes of the 3rd Zoning Arrangement Meeting

- Date : 17th November 2005
- Venue : Aquaculture Project Office of DOF, Langkawi
- Chairman : Mr.Abdul Rahman Abdul Wahab
-

Participants

DOF, Malaysia

- | | |
|---------------------------------|-------------------|
| 1. Mr.Abdul Rahman Abdul Wahab | DOF, Putrajaya |
| 2. Mr.Ahmad Saktian B. Langgang | DOF, Putrajaya |
| 3. Mr.HJ. Bustamah Bakar | DOF, Putrajaya |
| 4. Mr.Choong Kah Tung | DOF, Pulau Penang |
| 5. Mr.A. Krishnasamy | DOF, Kuala Lumpur |
| 6. Mr.Hadzley Harith | FRI, Penang |
| 7. Mr.Abdul Razak Bin Latun | FRI, Penang |
| 8. Mrs.Sabidah Bt. Saleh | DOF, Langkawi |

LKIM

- | | |
|-------------------------------|--------------------|
| 9. Mr.Mohd Zawahid Shamsuddin | LKIM, Kuala Lumpur |
|-------------------------------|--------------------|

Enforcement Unit

- | | |
|-------------------------------|-------------------------|
| 10. Mr.Moha Yusoff Bin Husain | Enforcement Unit, Kedah |
|-------------------------------|-------------------------|

KEN Kuala Teriang

- | | |
|-----------------------------|--------------------------------|
| 11. Mr.Mahadzir Bin Ibrahim | Chairman of KEN, Kuala Teriang |
| 12. Mr.Lazim Hashim | Fisherman, Kual Teriang |

Neighbouring villages

- | | |
|-----------------------------|--------------------------|
| 13. Mr.Said Bin Bulat | Fisherman, Kuala Chenang |
| 14. Mr.Ismail Bin Abd Hamid | Fisherman, Kual Chenang |

SEAFDEC/TD

- | | |
|------------------------------|--|
| 15. Mr. Sei Etoh | |
| 16. Mrs.Sumitra Ruangsivakul | |
| 17. Mrs.Penjan Laongmanee | |
| 18. Mr.Isara Chanrachkij | |
| 19. Ms.Saivason Klinsukhon | |

Content of discussion

1. The chairman welcomed all participants and the meeting was opened after all participants were self-introduced. The meeting was subsequently called upon to deliberate the matter arises from that meeting in line with the agenda proposed in the Prospectus.
2. The chairman explained the background of the meeting and the past movement with regard to prospective zoning arrangement in KEN Kuala Teriang. He stated that the 1st meeting was held on 27 March 2005 with participation of representatives from neighbouring villages; i.e. Kuala Chenang and Kubang Badak. The 2nd meeting was held on 30 June 2005 and the decisions were made on reverting the demarcated zone to the

- one originally suggested by SEAFDEC/TD and establishment of an appropriate institution to take charge in CBRM function.
3. The chairman further stated that the legal section studied the provision of FAD (Unjam) in the existing legal framework (Fisheries Act 1985) and found that the fishing license around a FAD shall be endowed to an individual but not to a group. Then, a question arose by Mr. Etoh on how to deal with the ones which were installed by SEAFDEC/TD and certainly belonging to the KEN. The Chairman promised to request the legal section for clarification. Meantime, the meeting agreed to pursue the applying the licenses for FADs installed in the fishing area of KEN Kuala Teriang in parallel with the effort to promote zoning arrangement.
 4. Mr. Saktian rose the question that anchovy purse seiners should be permitted to fish inside the demarcated zone as no fisherman in KEN Kuala Teriang catches anchovy in any case. After discussing this issue, the meeting suggested that a separate meeting should be organized between the new institution and the anchovy fishing group to seek a solution.
 5. Mr. Etoh posed the question to the meeting whether the KEN is endowed with the function of exercising the resources management within its mandate. The Chief of the KEN replied that the mandatory function endowed lay in economic activity but not extended to the resources management function. The meeting decided that, if so the case, there would be no other alternative than establishing a competent institution to pursue the matter with the CBRM.
 6. In relation to the above, Ms. Sabidah stated that in the wake of the 2nd zoning meeting on 30 June 2005 the ad-hoc internal meeting was organized with participation of leading fishermen from the neighboring villages, i.e. Kubang Badak and Kuala Chenang, on 9th July 2005. In this meeting, it was agreed to form a committee named "Fisheries Resources Management Committee (FRMC)" aimed at pursuing the fishery resources management in the demarcated zone to be established and executing members were elected. The meeting agreed to support their self-motivated movement and to promote the structural capacity building of FRMC as a core-working group.
 7. In the above meeting, the consultation was already made with regard to the control measurement on permitted fishing gear in the demarcated zone. Those permitted are: crab, fish and shrimp gillnet, hand and lining including trolling, trap fishing etc., while squid trap fishing, anchovy purse seining and bottom set gillnet for coral fish are not permitted.
 8. Mr. Etoh explained the conceivable steps to be taken for realization of the zoning arrangement as follows;
 - the 1st step: establishment of a local fisheries management institution
 - the 2nd step: preparation of the fishery resources management plan and the agreement of the community fishing ground
 - the 3rd step: legalize the co-management system
 - the 4th step: implementation of the management plan.
 The detailed description of each step was made further along with the hand-out presented to the meeting.
 9. The meeting understood that the current process was standing on the 2nd step. The

agreement of the community fishing ground has been drafted by SEAFDEC/TD and needs some refining work after scrutinizing its context in association with the legal experts. This will be followed up by the DOF Malaysian side. For the fishery resources management plan, the SEAFDEC/TD agreed to draft its outline for further consultation.

10. The meeting recognized that an embodiment of effective enforcement service is critically essential so as to regulate the coastal fishery resources within the regime of CBRM. The Chairman, KEN Kuala Teriang insisted its necessity citing the incidents that might actually happen. After long deliberation, Mr. Yusoff, the representative from the Enforcement Unit, promised to take an action to establish a service station for Enforcement Unit in Kuala Teriang in 2006.
11. The meeting also agreed that DOF to assist in developing the boats and fishermen profile of the respective village. This include listing down licensed and unlicensed boats that are in operation in the demarcated area. Kedah State Fisheries Office is identified to assist in this exercise.
12. The 3rd Zoning arrangement meeting was closed by the Chairman as bidding all participants for their valuable contribution and constructive comments.

Drafted by Sei Etoh (21 November 2005)

Endorsed by Mr. Abdul Rahman (05 January 2006)

Annex 7

Report on the Fishermen's Training Course in the CBRM Concept in Penang on 16th – 17th August 2005

Integrated Coastal Resources Management in Pulau Langkawi (ICRM-PL)

Sumitra Ruangsivakul
20th August 2005

1. Objectives:

- To familiarize the fishermen in the principle, basic concepts and needs for a radical change to coastal fishery resources management
- To realize the roles of fishermen and fishing communities in the sustainable development and management of coastal resources

2. Participants:

- A lecturer (Dr. Kuperan)
- 10 Fishermen of KEN Members (Kumpulan Ekonomi Nelayan)
 - Haji Mansor bin Man, Kg Kuala Teriang
 - Haji Padzil bin Haji Din, Kg Kuala Teriang
 - Hashim bin Ismail, Kg Kuala Teriang
 - Murat bin Osman, Kg Kuala Teriang
 - Che Embon binti Saad, Kg Kuala Teriang
 - Mahani binti Mansor, Kg Kuala Teriang
 - Jannuar bin Jaafar, Kubang Badah
 - Azrul Faizal bin Aziz, Kubang Badah
 - Ismail bin Abdul Hamid, Kg Kuala Cenang
 - Said bin Bulat, Kg Kuala Cenang
- 3 Fisheries Extension Officer from DOF, Malaysia
 - Mr. Anuar bin Omar, Kedah state
 - Mr. Krishana, Kuala Lumpur
 - Ms. Sabidah binti Saleh, Langkawi District
- 2 Officers from SEAFDEC/TD
 - Mr. Sei Etoh, Project Leader of ICRM-PL
 - Ms. Sumitra Ruangsivakul, Socio-economic Section Head, Research Division

3. Training schedule:

15th August 2005 (Monday)

17.30 – 20.00 Leave from Langkawi to Penang

16th August 2005 (Tuesday)

09.00 – 09.10 Opening by Mr. Etoh
09.10-10.00 Fishermen's motivation toward CBFM in Japan
10.00-11.00 Characteristics of a coastal fisheries system – critical coastal ecosystem for sustainable coastal fisheries
11.15-12.15 Characteristics of a coastal fisheries system – the human factor in fishing

- 14.00-15.00 Managing complexity – options for integrated coastal fisheries management systems
- 15.15-16.15 Managing complexity – model cases

17th August 2005 (Wednesday)

- 08.00-12.00 Inspection of the model case of CBRM application at Teluk Kumbar, Penang, Malaysia
- 14.00-15.30 Review and summarize the observation results / Practical application to the case of Kuala Teriang
- 15.45-16.30 Evaluation of the training course

4. The content of the training:

1. Mr. Etoh gave the background of the ICRM-PL project and the structure of cooperative management in Japan, the main theme of this presentation showed a lot of activities that will be carried out by the cooperative or KEN in Kuala Teriang for resources conservation and resources management.

2. Dr. Kuperan explained the CBRM concept and outlined the management in the community. The main theme of lecture will be used to show the problems in-site for discussion on the process and how to solve the problems. The participants (fishermen and officers from DOF) explained the fishing situation in their areas.

3. The lecturer gave samples of the resources management process from various countries to participants. There were participants from 3 villages attending the training, so Dr. Kuperan used the problems in the area to solve them step by step and try to define the process of this solution.

4. In the afternoon, the course was informed on the concept of Co-management, so that all participants understood the way to solve the problems with the government.

5. Concept of Co-management

- Co-management can be defined as an arrangement where the management responsibility is shared between the government and fishing communities
- A set of institutional and organizational arrangements that defines the cooperation in the fishing communities.
- This approach will require a move from a centralized, top-down form of management to a new strategy in which fisheries managers and fishers jointly manage the fishery resources.
- Concept of co-management covers a large range of institutional arrangements.
- Promise for addressing many of the issues of sustainability, efficiency and equity in managing fishery resources.

6. Fisheries Co-management

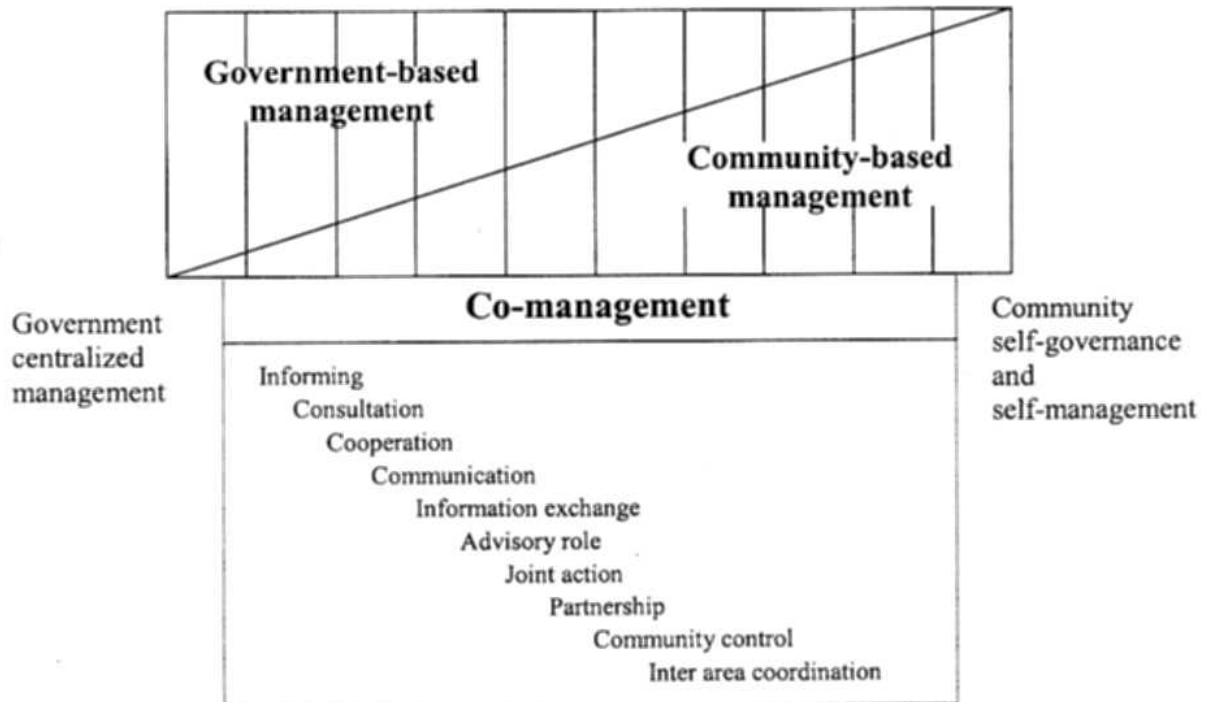


National
Government

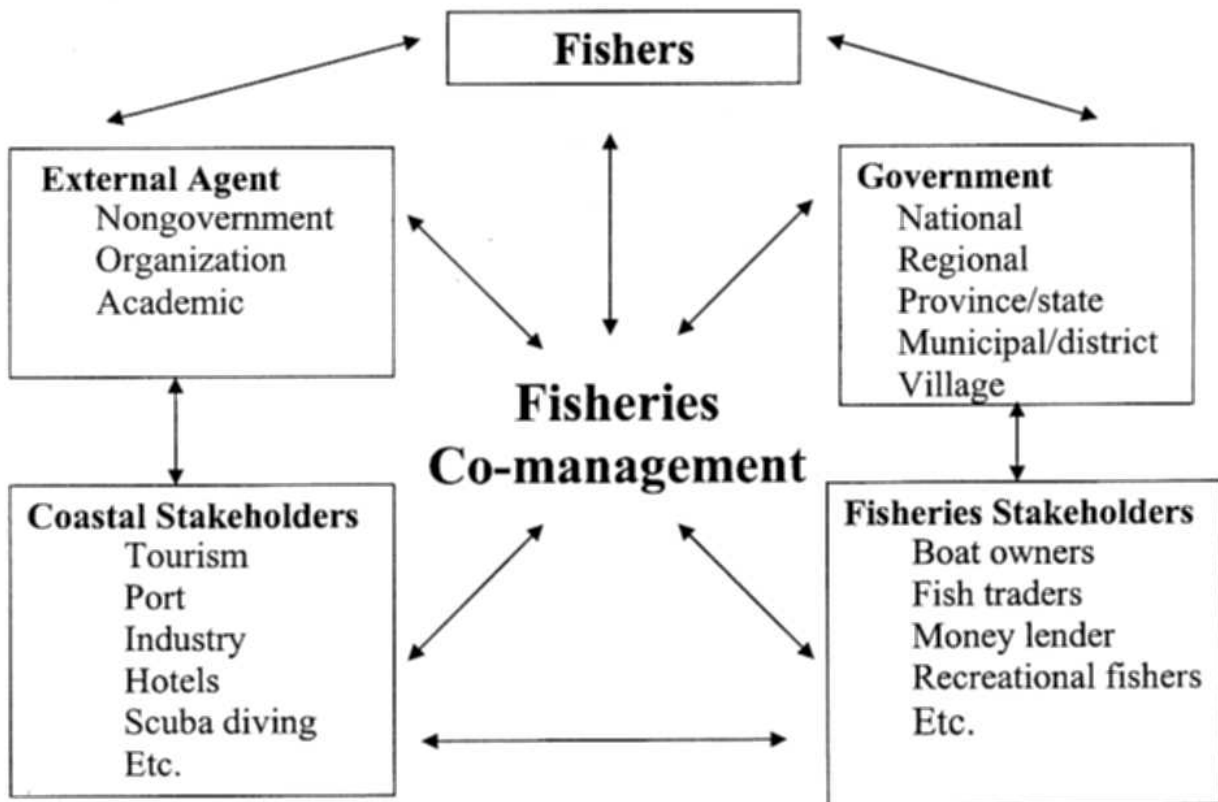
Fisheries
Management

Local
Community

7. A Hierarchy of Co-management Arrangements



8. Fisheries Co-management is a Partnership



9. Small Scale Fisheries

Characteristics:

Economics

- Using small powered boats and traditional fishing gear
- Fishing activity part time with income supplemented by non-fishing activity
- Low income
- Low investment
- Low in catch per fishing unit

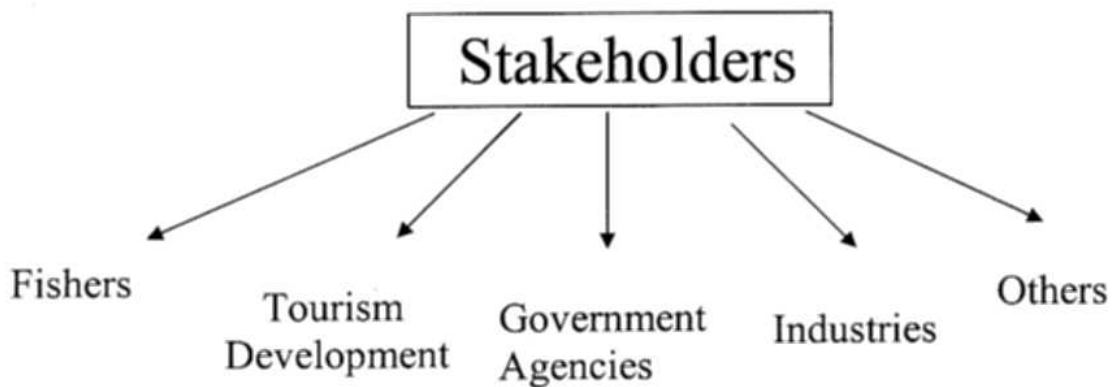
Social politic

- Low social status
- Poor living conditions
- Little political influence

10. Fisheries in Langkawi

- Langkawi is one of the main fishing areas in Kedah state
- Langkawi is the largest producer of *ikan bilis* in Peninsular Malaysia
- Aquaculture is practiced on a small scale for cage culture, fresh water and brackish water ponds and cockle production
- The numbers of fishers working in licensed fishing vessels in Langkawi has reduced from 1826 in 1995 to 1374 in 2004.

11. The Stakeholders in Langkawi Fisheries



Fishers

- Small scale fishermen

Tourism

- Tourist Development Corporation

Government Agencies

- LADA (Langkawi Development Authority)
- Langkawi Development Corporation

Industries

- Sand bricks
- Shipping and Engineering
- Stainless Steel

Others Stakeholders

- Non-fishers
 - Local communities
 - Commercial and business
 - Agriculture farmers
 - Other local communities

12. Small Scale Fisheries Management Plans

- Misunderstanding between decision-makers and fishermen on managing coastal fisheries resources.
- Two parties may have different economic strategies in regard to resource use.
- Three models to explain exploitation of natural resources:
 - Tragedy of commons (Hardin, 1968)
 - Prisoner's dilemma game (Dawes, 1973 and 1975)
 - Group theory (Olson, 1965)
- Evidenced from these three models is the call for an external agent or authority to regulate the resource rights of use.
- An effective development programme can be developed if both government and fishermen community-exist to develop new strategies which benefit both parties.
- This approach is known as *Co-management*

13. Co-management of Coastal Fisheries

- In the context of small scale fisheries, government plays an important role in the management of these fisheries
- In contrast, fishermen have a minimal role to participate in the management of the resource
- Co-management of coastal small scale fisheries maybe an avenue for improved management of these resources.
- The major concern is what motivates fishermen voluntarily to adhere to regulations
- Co-management shows promise of being a better resource management arrangement for the fisheries.
- Co-management allows government agencies and fishermen to share their responsibilities on managing fisheries resources.

14. On 17th August, all participants visited two project sites of DOF in Puala Pinang, the first site is Teluk Kumbar. Enforcement activity is the main work of this site, because the big problem is pair trawls that come to fish

15. The area is composed of 5 fishing villages, 169 fishing boats (9 with in-board and 160 with outboard engines). The main fishing gear are shrimp trammel net and Drift gill net, the main species are white pomfret and white shrimp. There are 79 drift gill nets (40 belong to Malaysians and 39 to Chinese) and the numbers of shrimp trammel net are 81 (41 belong to Malaysians and 40 to Chinese). The numbers of fishermen in this area are 347, 162 are Malaysian and 185 are Chinese.

16. This project was established in 2001, DOF provided an office and 2 boats at site, the big boat will stand by out-side, and the small boat will stand by in-side, the small boat includes 4 staff, one official, one engineer, one crew and one officer in charge.

17. The next project was a visit to Paula Betong, this KEN was damaged by the Tsunami. There are 45 members, the main activity is fish marketing, the market is managed by KEN members, one manager and two workers. The main species are shrimp and white pomfret, this market gives a higher price than middleman.

18. Future plan, the leader of KEN would like to get more members to strengthen the group, because there are 200 fishermen in this area.

19. In afternoon, the evaluation of this training course was arranged at the meeting room of the Siri Malaysia Hotel, the result of this evaluation are as follows:

A. Dr. Kuperan's lecture

1. Lessons learn

- Vision of Fishermen, not only fishing traditionally but also activities on land, like the business of the selling of fresh fish, and other processing. The reason is to reduce the fishing effort and increase income.

2. Anything applicable to KEN Kuala Teriang

- Master Plan

- a. Show the resources in a map.
- b. Time-table (schedule) of fishing activities (fishing season)
- c. Separate the resources for breeding, request DOF to research on spawning season of crab, pomfret, Spanish mackerel, can stop fishing season.
- d. Relationship between fishermen and officers (understanding).
- e. Local Enforcement Unit at site.
- f. Establish zoning
- g. The relationship between the fishing community, they have to attract other members to the KEN.

B. Visit to KEN Teluk Kumbar

1. Impressions learned from their activity
 - The enforcement centre can operate the supervision of boat encroachment and protect the resources, enforcement is very active.
2. Anything applicable to KEN Kuala Teriang
 - Their practice can be brought to Kuala Teriang. More information, the first step will be have a discussion with the Chairman and committee of the KEN, and a report will be sent to the agency concerned, and submitted to the Ministry in the end.

C. Visit to KEN Pulau Betong

1. Impressions gained from their activities
 - Our view is good because the selling of fish activity is by KEN members, appreciate fish marketing by KEN. This activity will be careful, if DOF or LKIM stop supporting the KEN, how to manage? The system of Kuala Teriang, when fishermen sell fish to middleman, they can get their money one or two days after, if fishermen sell fish to the KEN, they will get cash on that day.
2. Anything applicable to KEN Kuala Teriang
 - Welfare of KEN members is taken care of by giving interest free loans, the money return depends on the fishermen available. Kuala Teriang is a good site for this, because a lot of tourists come to visit.
 - KEN keep live shrimp and crab, to allow a good price for fishermen. This activity will be tried in Kuala Teriang.
 - Good relationship between officers and fishermen at site.

Report
On
Fishing gear improvement in Langkawi
(ICRM-PL)

Isara Chanrachkij
21 November 2005

1) Background

The workshop on the *Fishing gear improvement in Langkawi* was held at Aquaculture Project Office Meeting Room on 18 November 2005. The workshop was strengthened on the review of activities and seeking the trouble of the implementation of introduced fishing gear and fishing operation as well as arrangement of the future program under the requirement from the local fisherman in project area. The following is the report of workshop completed with the discussion with the fishermen and DOF fisheries officers.

2) List of participants at Fishermen's workshop

SEAFDEC/TD

1. Mr.Sei Etoh
2. Mrs.Sumitra Ruangsivakul
3. Mrs. Penchan Laongmanee
4. Mr.Isara Chanrachkij
5. Ms.Saivason Klinsukhon

DOF, Malaysia

- | | |
|-----------------------------|-------------------|
| 1. Mr.A. Krishnasamy | DOF, Kuala Lumpur |
| 2. Mr. Dzul kifli b. Husain | IPM |
| 3. Mr.Choong Kah Tung | DOF, Pulau Penang |
| 4. Mrs.Sabidah Saleh | DOF, Langkawi |

Fishermen

1. Mr.Rozi Ismail
2. Mr.Azman Chepa
3. Mr.Roslah Othman
4. Mr.Hashim Ismail
5. Mr.ABD Halim Hussain
6. Mr. Padzil Bin Din
7. Mr. Xansor Bin Xnan
8. Mr. Osman Bin Itan
9. Mr. Murai Bin Osman

3) Detail of discussion

1. The Chairman of meeting, Mr. Etoh, expressed the welcome address and gratefully to all local fishermen and Malaysia fisheries officers who attended to the meeting. He briefly presented the purpose of meeting i.e., the review work of fishing gear technology improvement in Langkawi, trouble of implementing four introduced fishing gears and operations as well as the discussion of the feasible plan in year 2006. Background of *Fishing gear improvement in Langkawi* project was reviewed as well.

2. Mr. Isara gave presentation of the review activities of the project Fishing gear improvement in Langkawi. The details is followed,

- ① Fishing Gear Survey (29-31 March 2004)
- ② Training on Mechanical (4-6 May 2004)
- ③ 1st Fishing Experiment (14-17 June 2004)
- ④ 1st Fisherman Training (9-11 August 2004)
- ⑤ 2nd Fishing Experiment (19-23 December 2004)
(2nd Fishermen Training (planned in Jan. 2005 but cancelled due to the tsunami disaster on 26 December 2004)
- ⑥ Fishermen Training on FRP Technique (23-26 May 2005)

3.1. FISHING GEAR SURVEY

DURATION: 29-31 March 2004

OBJECTIVES:

1. To investigate the present fishing practices in the project area, i.e. Kaula Terieng.
2. To identified needs in fishing technology improvement for local fisherman in the project area.
3. To prepare the tentative plan for improving local fishing technique through training method.

RESULTS:

1. 7 main fishing gears had found in the project area, i.e. Trammel net, Bottom gillnet, Drifting net, Bottom longline, Trolling line, Handline, Crab trap, Ivory whelk lift net.
2. Concluded the draft of fishing technique improvement plan for under agreement by local fishermen in project area.
 - Material improvement
 - Find out new material for long life used.
 - Find out new source of material supply for fisherman under the cooperative mechanism.
 - Improve the fishing gear storage in order to extend the life span of gear
 - Introduce the new fishing gear
 1. Bottom vertical longline (BVL)
 2. Collapsible crab trap
 3. Squid trap
 4. Trolling line for squid
 5. Trolling line for pelagic fishes
 6. Fish trap

- Improvement of the hauling devices
- Improvement of mechanical technique
- Improvement of FRP technique
- Improvement of Fish handling technique

3.2. MECHANICAL TRAINING ON OUTBOARD ENGINE

DURATION: 4-6 May 2004

OBJECTIVES:

1. To train local mechanics on the management of engine workshop
2. To train local mechanics on the outboard engine repairing and maintenance
3. To train local fishermen on the technique of outboard engine daily maintenance
4. Discussion with fishermen and Fisheries officer for the plan for improvement of mechanical service

RESULTS:

1. Local mechanics understood and gained experience of the Outboard engine repairing and maintenance as well as the arrangement of the engineering workshop
2. Local fishermen understood the basic knowledge and basic maintenance of outboard engine

3.3. 1st FISHING EXPERIMENT

DURATION: 14-17 June 2004

OBJECTIVE: To conduct the fishing trial of

1. Collapsible crab trap
2. Bottom vertical longline (BVL)
3. Trolling line
4. Ivory whelk Trap

RESULTS:

1. Collapsible Crab Trap: Catching performance is good (99 g / trap, 44ind. /100 traps)
2. Bottom Vertical Longline: Catching performance is accepted (22.3 Ind. Fish /100 hooks) but suitable fishing ground is too limited
3. Trolling Line: Fisherman technology is proper
4. Ivory whelk Trap: Catching performance is accepted but proper fishing ground is too limited

3.4. 1st FISHERMAN TRAINING

DURATION: 9-11 August 2004

OBJECTIVES:

1. To train local fisherman on
 - Collapsible crab trap
 - Bottom vertical longline (BVL)
2. To investigate the Ivory whelk trap fishing ground off Pantai Kok

RESULTS:

1. Fishermen were able to construct the BVL and trap. Fishermen request to practice the frame making.
2. Fishermen have understood the operation of BVL, collapsible crab trap and Babylonian trap
3. BVL operation should be selected proper fishing ground in order to catch target species i.e. grouper or snapper.
4. It was confirmed that Ivory whelk resources had found off Pantai Kok
5. The training was not fully success because fishermen are able to attend or left the class any time that made training has not been continued.

3.5. SECOND FISHING EXPERIMENT

DURATION: 19 -23 December 2004

OBJECTIVES:

1. To compare fishing efficiency between SEAFDEC collapsible crab trap, Local collapsible crab trap and Lobster trap
2. To conduct the fishing trial of
 - Collapsible fish trap
 - Lobster trap
 - Wooden squid trap
3. To investigate the seasoning of Ivory whelk fishing ground off Pantai Kok

RESULTS:

1. Collapsible fish trap has shown high efficiency by
 - Catching rate of Grouper is 580 g /trap (240 Ind./ 100 traps)
 - Catching rate of swimming crab is 490 g /trap (190 Ind./ 100 traps)
2. Catching rate of Ivory whelk by Ivory whelk trap is 10.1 kg/100 traps (373 Ind./ 100 traps)
3. SEAFDEC collapsible crab trap has shown more efficiency than local collapsible crab trap and lobster trap
4. Catching performance of SEAFDEC collapsible crab trap is 180 g / trap and 75 Ind. /100 traps
5. Catching performance of Local collapsible crab trap is 30 g / trap, 10 Ind. / 100 traps
6. Lobster traps were not able to catch any lobster but catching performance of crab is 710 g / trap and 30 Ind./ 100 traps
7. Squid trap fishing trial has not been able to conclude the performance because of several squid trap has lost during operation but the catches from 2 remained traps were 3 squids. Catching rate was 460 g/ trap and average squid size was 307 g/ squid

3.6. TRAINING ON FIBER REINFORCEMENT PLASTIC (FRP) TECHNIQUE

DURATION: 23 – 26 May 2005

OBJECTIVE:

1. To train local fishermen on the minor repairing of damage wooden boats by FRP material

RESULT:

1. Fishermen understood the selected parts of fishing boats which were able to repair by FRP material.
2. Fishermen understood and gained skill of the preparing of basic material for fiberglass.

REQUEST:

1. Fishermen had requested to SEAFDEC engineer on the training of FRP boat construction.

4. CONCLUSION OF THE PROJECT ACTIVITIES

4.1. MATERIAL IMPROVEMENT

- Find out new materials for long life used.

Note: Fishing gear materials, e.g. Non-rusty hook, Ethylene Vinyl Acetate (EVA) float for gillnet are not available in domestic fishing store. They have got to order from the foreign countries such as Thailand, Vietnam, Taiwan and Korea. The process is found difficult to conduct.

- Find out new source of material supply for the fishergroup under the cooperative mechanism.

Note: The activities shall be disturbed with local fishing store and source from the low price of net shall be order from net making factory in Thailand. It needs to make further agreement from local fishermen.

- Improve the fishing gear storage in order to extend the life span of gear.

Note: Not yet implement because fisherman seem to proper take care of their fishing gear.

4.2. INTRODUCTION OF NEW FISHING GEAR

Regarding to the result of fishing gear survey in project area (29-31 March 2004) Some fishing gears have been selected to introduce in the project area.

- | | |
|----------------------------------|--------------------|
| ▪ Bottom vertical longline (BVL) | Done/satisfied |
| ▪ Collapsible crab trap | Done/Satisfied |
| ▪ Collapsible Fish trap | Done/Satisfied |
| ▪ Ivory whelk Trap | Done/satisfied |
| ▪ Trolling line for pelagic fish | Done / unsatisfied |
| ▪ Squid trap | Done/Incomplete |
| ▪ Trolling line for squid | Not tried |

4.3. IMPROVEMENT OF HAULING DEVICES

Note: Local hauling devices for gillnet hauler is found suitable. The introduced new devices need to import from foreign country

4.4. IMPROVEMENT OF MECHANICAL TECHNIQUE

Done by SEAFDEC marine engineers

4.5. IMPROVEMENT OF FRP TECHNIQUE

Done by SEAFDEC marine engineering staffs

Request by local fisherman: FRP fishing boat construction

4.6. IMPROVEMENT OF FISH HANDLING AND PRESERVATION TECHNIQUE

Introduce of Fish containers was conducted by Mr. Etoh.

Mr. Isara presented the related feasible plan of Fishing gear improvement in Langkawi in year 2006. The details is appeared as following,

- ① IMPROVEMENT OF MECHANICAL TECHNIQUE
- The 2ND mechanical training on marine outboard engine
- ② IMPROVEMENT OF FISH HANDLING AND PRESERVATION TECHNIQUE
- Mobile freezing unit and basic knowledge for refrigerator system
- Mobile air pump unit for alive marine catches
- ③ SAFETY AT SEA FOR SMALL FISHING BOATS
- Introduce code of safety for small scale fishing boat
- ④ RESPONSIBLE FISHING BY USING THE SELECTIVITY FISHING GEAR
- Introduce shrimp bottom gillnet for reducing by-catch from the shrimp fishing by trammel net
- ⑤ REHABILITATION OF THE MANGROOVE IN THE PROJECT AREA

5. RECOMMENDATION

Mr. Etoh requested fisherman to inform the trouble of implementation of four introduced fishing gear, i.e. collapsible crab trap, Bottom vertical longline, Babylonian trap and fish trap. Because fishermen have not yet implemented all fishing gears since SEAFDEC fishing gear technologists conducted the fishing gears trials, and trained to local fishermen. Project leader would like to investigate the fisherman trouble in order to seek for the solutions. The comment from the fisherman can be concluded as follow,

| Fishing gear | Trouble | Solution |
|---------------------------------|--|---|
| Collapsible crab trap | 1) Fishermen have concerned on bottom trawl fishing activities in their fishing ground may damage the Co 2) The investment need to spend some money. They request SEAFDEC to support some fishing gears 3) Fishing gear <u>may</u> disturb to the drifting net | 1) Zoning arrangement shall be introduced in Year 2006. Zoning policy can prevent the fishing activity conflict between bottom trawl fishing and the fisherman in the announced zone. 2) Not any comments from SEAFDEC side to discuss on the subsidies of fishing gear and accessories 3) Fishermen did not show the third trouble is serious trouble. |
| Bottom vertical longline | 1) Fishing ground is very limited according to the several number of ARs/FADs | 1) Fishermen inform that operation of BVL shall implemented after 10 ARs/FADs setting in year 2006 |
| Babylonian trap | 1) No market | 1) The project will see to the marketing opportunity. |
| Squid trap | 1) Fishermen have concerned on the disturbance with drifting net. | 1) No discussion for the solution |

| Fishing gear | Trouble | Solution |
|------------------------------|---|--|
| Collapsible fish trap | 1) Fish trap is possible to steal by other fishermen. 2) Fishermen have concerned on bottom trawl fishing activities in their fishing ground may damage the Collapsible fish trap. 3) Fishing gear <u>may</u> disturb to the drifting net and bottom gillnet in coral reef area 4) Cost of fishing gear construction is high. They request SEAFDEC to support some fishing gears | 1) No discussion for the solution 2) Zoning arrangement shall be introduced in Year 2006. Zoning policy can prevent the fishing activity conflict between bottom trawl fishing and the fisherman in the announced zone. 3) No discussion for the solution 4) Not any comments from SEAFDEC side to discuss on the subsidies of fishing gear and accessories |

FUTURE PLAN

Regarding to the feasible plan of year 2006 which proposed by Mr. Isara, the meeting had discussed and concluded to conduct activities. Details have been appeared in the following table;

| Item | Result of discussion |
|--|--|
| Improvement of Mechanical technique | Fishermen <u>agreed</u> with the training for marine outboard engine. The training shall be held by requesting technical assistant from Fisheries Development Center, Pinang. SEAFDEC shall take responsible on the allowance for fishermen, lunch as well as coffee break. Fisheries Development Center, Pinang shall take responsible on the transportation, accommodation expense and allowance of instructors. Training methodology shall be detailed on further discussion. |
| Improvement of fish handling and preservation technique 1) Mobile freezing unit and basic knowledge for refrigerator system 2) Mobile air pump unit for alive marine catches | Activities of Improvement of fish handling and preservation technique has <u>disagree</u> because 1) Fishermen had comments that they did not interested in the mobile freezing unit because in it is too big for their vessel and ice box is proper for their land preservation. 2) Fishermen have already invented air pump for alive marine catches |
| Training on Safety for small scale fishing boats | Fishermen <u>agreed</u> with the training activity. The training shall be held by requesting technical assistant from IPN, Terrenganu. Training place and methodology shall be detailed on further discussion. |
| Responsible fishing approach by using selectivity fishing gear i.e., Introduce shrimp bottom drifted gillnet for reducing by-catch from the shrimp fishing by trammel net | 1) Fishermen show <u>interested</u> in the shrimp bottom drifted gillnet and fishing gear technologist shall prepare the fishing gear for trial next year. |
| Rehabitation of mangrove area on the project site | Mr. Etoh has already plan the activity of Rehabilitation of mangrove area on the project site to the program in year 2006 |

Mr. Etoh has expressed his appreciation to all members of meeting for their fully participation and the agreement shall be progress in year 2006. Mr. Krishnasamy had informed to chairmen that the program should initiate after February 2006 because of the budgetary mechanism of Malaysia government. Discussion was finished at 12.00 Hrs.

Annex 9

Minutes of 5th Project Implementation and Coordination Committee (ICC) Meeting

Intergrated Coastal Resource Management - Pulau Langkawi (ICRM-PL)

1. **Date** : 15 August 2005
2. **Venue** : Aquaculture Project Office of DOF, Langkawi
3. **Participants** :

DOF Malaysia

- 1). Mr. Abd. Rahman Abd. Wahab
(Chairperson) Fisheries Officer, Planning Development and International Division
- 2). Mr. A . Krishnansamy Fisheries Officer, Extension & Fish Quality Assurance Management Division
- 3). Mr. Anuar bin Omar Extension Officer, Kedah State Fisheries Office
- 4). Ms. Nur Afifah A. Rahman Fisheries Officer, IPM, Terengganu
- 5). Ms. Sabidah BT Saleh Extension Officer, District Fisheries Office, Langkawi

LKIM

- 6). Mr. Jaafar B. Mohd. Jan Manager, Langkawi LKIM Office

KEN, Kuala Teriang

- 7). Mr. Mahadir B Ibrahim Chairman of KEN
- 8). Mr. Hj. Fazil B Hj. Din Secretary of KEN
- 9). Ms. Che Embon BT Saad Chairman of women's group
- 10). Ms. Mahani BT Masor Member

JKKK

- 11). Mr. Abdullah Bin Osman Kuala Teriang

BJP

- 12). Mr. Nazim B. Abu Hassan Langkawi Office

SEAFDEC/TD

- 13). Mr. Seiichi Etoh Project Leader
- 14). Ms. Sumitra Ruangsivakul Section Head, Socio-economic Section, Res Division

4. Welcome address

Firstly, the chairperson apologized to the meeting for the last minute cancellation of Mr. Mohd. Shaupi Derahman, Director, Planning, Development and International Division of DOF, who was expected to chair the meeting due to the unavoidable duty in Kedah State.

The chairperson welcomed the members of the 5th ICC meeting. He also requested all 14 participants to introduce themselves. He further briefed the past history of the project and commented the appreciable progress being made in spite of the adverse factor caused by the tsunami disaster toward the achievement of the project goals and objectives.

5. Adoption of agenda

The proposed agenda in the Prospectus of the 5th ICC meeting was adopted without amendment.

6. Contents of discussion

6.1. Endorsement of the Minutes of the 4th ICC meeting

The Minutes of the 4th ICC meeting was endorsed with the following comments and discussion.

ARs and FEDs

- a. The fish enhancement devices (FEDs) installed by the KEN Kuala Teriang in December 2004 after being trained by SEAFDEC/TD were now all disappeared. Fishermen were in view that some could be dragged away by trawlers while the others could be detached from the chain part due to the swivel metal worn-out. In any case, it is necessary to investigate the cause of disappearance prior to reinstallation of them. The fishermen appreciated the effectiveness of the FEDs introduced by SEAFDEC/TD. Also, the DOF Malaysia requested that the newly constructed FEDs should be equipped with "net-cutters" to protect from trawlers.
- b. The planned installation of ARs in August 2005 by LKIM can not be materialized due to the shortage of the fund. It may be postponed until next year.
- c. Mr. Etoh stated that the productivity of the Kuala Teriang waters was relatively low without any coral and sea grass in the sea bottom, and therefore measures to enhance fish habitat should be taken in one way or another. In this sense, installations of ARs and FEDs are considered as very effective and vital means. Given the fact as above, he further suggested to accommodate the expected Japanese Grass-Roots Grant Aid for this purpose since a part of planned inputs had been disbursed already by virtue of DOF and LKIM. The Chairperson replied that it would be difficult as it was out of the scope from the tsunami rehabilitation and also the allocation of the fund was being finalized.
- d. A fishing ship confiscated by the Enforcement Unit was sunk in the Kuala Teriang waters in July as an AR. Mr. Etoh proposed that the installation of ARs and FEDs should be made in line with the way suggested by SEAFDEC/TD from the technical point of view in August 2003 as there is a certain reciprocal action in formulation of sound eco-system. The meeting agreed that the LKIM would consult with SEAFDEC/TD when installing ARs or FEDs from now-on.

Zoning arrangement

- e. In the wake of the 1st zoning arrangement meeting on 1st March 2005, the 2nd meeting was held on 1st July 2005 in Langkawi with participation of the representatives from various local authorities concerned with the zoning issues and of those from the neighbouring villages. In this meeting, it was agreed to form an internal committee of zoning arrangement to promote the scheme forward. Also, it was agreed that the expanded zoning demarcation was employed instead of the one initially suggested by SEAFDEC/TD.
- f. As the next step, the draft resources management plan should be drawn for submission to the above committee as a discussion material. To this end, the meeting proposed SEAFDEC/TD to prepare the outline of the plan based on experience and knowledge gain through the project in Chumphon. The SEAFDEC/TD agreed to work it out by the end of September 2005.

Crab bank

- g. In the wake of the study tour to Chumphon in June 2005, the KEN considered an application of the crab bank in Kuala Teriang. To do that, negotiation with the Langkawi Development Authorities (LADA) was initiated asking for allocation of the

coastal area for installation of cages. The LADA responded positively to allocate the proposed area in the Langkawi Lagoon near Kuala Teriang pending the formal confirmation.

Data collection activity

- h. The proposed collaboration work with SEAFDEC/TD and FRI with regard to data collection activity was noted at the previous ICC meeting by the DOF Malaysia and the action was taken. In fact, the data collection reactivated in this August and one research assistant of FRI participated in this activity.

Local business

- i. Aimed at developing the transparent accounting system, it was planned to introduce the computerized accounting method to the women's group (WG) activities. In line with the discussion on the last ICC meeting, SEAFDEC/TD procured a simple computer set with a printer, expecting the DOF Malaysia to make an arrangement for an appropriate internal training to be held in the Ministry of Agriculture in KL. However, it was subsequently found that the said course was meant for only the DOF staff but not for the outsiders. Therefore, it can not applicable to the WG in Kuala Teriang. Based on this information, the meeting proposed to the Extension Officers in District Fisheries Office begins training the selected members of WG in an simple CP manipulation technique in September, and thereafter a relevant training course in use of the specific software of bookkeeping by the supplier will be arranged. The proposal was accepted.
- j. Aimed at diversifying the products with the WG, the KEN Kuala Teriang has contacted the Kedah Development Authority (KEDA) who is assisting two women's groups of the Kedah State in producing "surimi products". The request to KEDA was made in a bid to apply the similar assistance for the WG of Kuala Teriang. A reply has been pending.
- k. Mr. Etoh raised his concern that the WG had produced only one major product so far and the marketing channels were limited. More attentive attention should be paid to see to it by the Extension & Fish Quality Assurance Management Division of the DOF Malaysia. The meeting noted the suggestion.
- l. The contact to Federal Agricultural Marketing Authority (FAMA) was made by the KEN in a bid to looking into the expansion of product outlets. As a result, a few spaces in their out lets were given to sell the products from the KEN.
- m. As to the babylonia shell culturing which is one of the outcome from the study tour to Chumphon, it needs more extensive research on practicability by FRI or other marine biological institutes and also ensuring marketing outlets at lucrative prices.

6.2. Description of the project activity during the last three months

Mr. Etoh explained the highlight of the project progress during the last three months after the 1st ICC meeting as follows.

- a. Thanks to DOF Malaysia, LKIM and other agencies, the pace of rehabilitation from the tsunami assault has been progressing as much as about 90% fishermen can reactivate fishing with 50% of fishing boats and gear compared with the pre-tsunami situation.
- b. Fish landing and marine resources surveys were reactivated in August.
- c. Analysis and compilation of the fish landing and marine resources surveys were completed in July.
- d. Zoning arrangement movement has been progressing with holding the 1st meeting in March and the 2nd meeting in July.

- e. Study tour by the leading KEN members was made to the sister project in Chumphon in June primarily to observe their activities on crab bank and local enforcement, which gave great impacts to the participants.
- f. The fish processing training course was conducted for the members of Women's Group in the IPM of Kuala Terengganu for one week in April. In this course, 15 members participated.
- g. A set of computer was procured to streamline the bookkeeping and accounting systems.
- h. The training course in boat repairing in use of FRP materials was held in May in Kuala Teriang. To this course, 13 trainees participated.
- i. 900 pieces of ARs were installed in February in the waters of Kuala Teriang.
- j. The 3rd Steering Committee was held in April.

6.3. Reporting the current status of rehabilitation from the tsunami disaster

Mr. Anuar reported the meeting on the current status of rehabilitation from the tsunami disaster citing the latest "Biannual Project Progress Report covering Jan-June 2005". He stated that no significant change had been made from the context in the report except the expected Japanese Grass-Roots Grant Aid which might contribute to the project operational area at about RM 211,000. As aforementioned, 90% of fishermen compared with the status before the tsunami disaster have re-started their fishing activity but the numbers of fishing boat and fishing gear can count for only 50%.

6.4. Immediate future work

Mr. Etoh reported the meeting the immediate future work citing the Annual Activity Monitoring Sheet (Revision 1). Basically, all the activities are carried out in line with this schedule as explained at length in the agenda of endorsement of the previous ICC meeting. However, taking into account the current situation, the following planned activities may be shifted in 2006.

- a). 3.2.2. National workshop on women's participation to group activities
- b). 5.2.1. Fishers workshop on application of improved fishing gear
- c). 6.2.2. Installation of ARs
- e). 7.1. Mid-term project evaluation

6.5. Any other issues

The representative of WG requested SEAFDEC/TD to install the signboard in front of the processing yard which was committed by SEAFDEC/TD before the tsunami assaulted in December 2004. Mr. Etoh promised to look into the matter favourably.

7. **Closing**

The Chairperson thanked all participants for their valuable contribution and constructive comments and wished the forthcoming fishermen training course in Penang all success.

Drafted by: Mr. Sei Etoh
 Mr. Abdul Rahman bin Wahab
 19th August 2005