



Bi-annual Project Progress Report

- Project title** : Integrated Coastal Resources Management in Pathew District (ICRM – PD)
- Program Categories** : Programs under the ASEAN-SEAFDEC FCG Mechanism
- Program Title** : Capacity Building of Human Resources and Participation in Integrated Coastal Resources Management
- Duration of Project** : 5 years and 3 months
- 1st Phase: October 2001 – December 2004 (under TF-1)
- 2nd Phase: January 2005 – December 2006 (under TF- 4)
- Executing Agency** : Department of Fisheries, Ministry of Agriculture and Cooperatives, Thailand
- Cooperating Agency** : SEAFDEC/TD
- Funding Agency** : Japanese Trust Fund (the FCG scheme)
DOF Thailand (Co-financing)
- Proposed Budget** : USD 36,550 (Under Japanese Trust Fund input – year 2005 only)
USD 10,000 (Special 5 year program SDI-4 – year 2005 only)
Baht 15,200,000 (DOF Thailand Input – for 5 years)
- Reporting period** : **July to December 2005**

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1. GENERAL ACCOUNT

As a whole, the project has progressed on the right track compatibly with the project design and the project phasing out process has been advancing as expected.

The newly born Phakklong Fishermen's Group (PFG) is getting very active in opening the new office premises and initiating the Saving Group with their own initiative. The leadership by the committee members is commendable. The process for obtaining the legal entity with the Provincial Cooperative Promotion Office in Chumphon is under way.

The two-day local seminar on "the guideline for Coastal Fisheries Resources Development" was organized in CMDEC in which 69 participants concerning the project operation were present.

Various training courses were conducted; e.g. the marketing strategy and the group activity management, the fishermen's training course in the fisheries cooperative administration and function, the school student training course in the coastal resources management etc.

The Ao.Bo.To. decided to contribute Baht 250,000 as the SML (small, medium and large) funds in a bid to assist cottage scale business development.

Responding to the request by the fishermen, 10 sets of fish enhancing devices (FED) were prefabricated during the training and installed. It has been observed that these facilities are running effectively. The request to install 60 more units were submitted to the Ao.Bo.To. by the PFG.

Releasing fish seeds of sea bass and shrimp was conducted by the CMDEC and the Ao.Bo.To.

Activities on rehabilitation of coastal habitat like mangrove reforestation and tree planting were conducted.

The Implementation Committee meetings were held twice in this reporting period.

The study tour mission from Senegal was mounted to the project site under the World Bank financial support.

2. ACTIVITIES

Activities have progressed in line with the Action Plan in general as shown in the Annual Activity Monitoring Sheets in 2005 in **Annex 1**.

2.1. Monitoring survey

The marine biological survey is regularly conducted once a month for 5 days in eight varieties of fishing gears; i.e. crab traps, squid cast net, shrimp trammel net, mackerel gill net, squid traps, mullet gill-net, crab gill-net and anchovy cast net. This activity has been completely transferred to CMDEC from the SEAFDEC/TD. Following to the suggestion by the out-sourced consultant in May 2005, the supplemental survey is conducted by the SEAFDEC/TD liaison office / extension worker in-between the monthly survey.

The collection and analysis of water sample have been regularly conducted by the MCR every 3 months. The parameters are water transparency, temperature, salinity, pH, dissolved oxygen, nutrients and total suspended solids. Also, identification of growing sea grass has been continued together with this water analysis activity. The survey on coral which is expected to be the following-up one conducted in 2002 could not be carried out by MCR due to the shortage of manpower.

The new species of sea grass in the area was discovered through the sea grass survey carried out by the MCR.

2.2. Encourage and extend the CBRM concept

Trends of fishery resource

One of the research results presented at the national seminar showed the declining trend in average total fish production. This fact led the floor to the live debate among participants as most of fish catch increased from 2003 to 2004 but decreased in 2005. Although fishermen were in rather optimistic view especially in crab fishing, it was agreed to monitor more carefully this trend. It should be noteworthy that some participants claimed that polluted water effluent from shrimp farms and rubber estates were main causes of habitat degradation. However, the research work done by the MCR on water quality analysis in the project operational area could not prove this allegation.

Control of mesh size

The self-regulatory measure in controlling crab trap mesh-size was introduced among crab fishers in the project operational area in September 2003. Under this regulation, the mesh size of the crab traps was increased from 1.25" to 2.5". Since then, the monitoring survey to see the impact given by the measures has been continued. The results now obviously demonstrated that the average sizes of carapace length and the minimum sized crab caught have been increased from 8.56cm to 9.06cm (12.7% increase) and from 4.5cm to 6.5cm (44.4%) respectively.

Aquaculture zoning

There are some constraints among 20 mussel culturists on allocation of the spaces for culturing and this issue was raised up at the 2nd PFG general meeting in August. The request for demarcation for the aquaculture area was submitted to the Provincial Fisheries Office in 2003 for promulgation but it was suspended until the Sea Food Bank scheme be finalized. This issue was further raised up at the 2nd IC meeting for expediting the matter. The Provincial Fisheries Officer explained that the implementation of the scheme is just started in 2005 with 3 year tenure; i.e. 2005 for training, 2006 for allocation of the space and 2007 for funding, and the aquaculture zoning proposal should be incorporated in the government scheme of Sea Food Bank. To do that, the provincial office plans to visit the project site to explain the purpose and the approach of the scheme to the potential fish farmers.

Crab bank

The crab bank activity motivated by the crab fishermen was commended at the National Seminar in August and the full support was recommended. To do that, it is further proposed that a more scientific data collection for the crab bank should be commenced by CMDEC.

Local enforcement unit (LEU)

After completion of the training course in establishment of the local enforcement unit (LEU) in

June 2005, the Ao.Bo.To. office committed to finance the construction of a premises of LEU. The Enforcement Division of DOF is envisaging commencing the enforcement activity once the Ao.Bo.To. has completed the building, probably in 2006. Meantime, the PFG will organize the volunteer LEU teams with the members.

The Ao.Bo.To. constructed a multipurpose off-shore common house in October in front of the village number 7 and next to the Crab Bank cage in a bid to serve fishermen for patrolling at sea within the activity of LEU. In addition, it aimed to serve for tourist to visit and observe the activity of Crab Bank. It costs the Ao.Bo.To. Baht 240,000.

Dispute with swallow nest collector

One of the major industries in the Pakklong Sub-district lies in swallow nest collection in the three islands in the area.. The company pays to the Chumphon Province office Baht 893 million for the five year concession, and out of this disbursement the Provincial Office accommodates Baht 60 million to the Ao.Bo.To. office as a tax revenue. This constitutes the major annual revenue for the Ao.Bo.To. This industry began in 2004 with a certain agreement with the local fishermen. However, since then some frictions between them have arisen and sometime the fishermen who came near to the swallow nest caves for fishing were shot by the guardsmen. Under these situations, the PFG protested with the Provincial Office. Responding to the request, the meeting on the Bird Nest Tax was summoned on 16 September with the participation of various agencies concerned. In this meeting, it was compromised that the protecting area for the Bird Nest Collectors should be decreased from the present 500m to 300m and the collector should put the visible buoys and lights on the 300m lines and on the other hand the fishermen should decrease the power of the lights for squid cast net fishing boats etc. The detailed concession reached in the wake of the negotiation between the PFG and the committee for the swallow nest collectors is described in Travel Report – Chumphon of **Annex 2**.

3. Encouragement of local businesses

In a bid to assist cottage scale business development, the Ao.Bo.To. decided to grant the SML (Small, Medium and Large) Fund with the amount of 250,000 in total to the Phakklong Sub-district in August. The exact amount to be distributed to each group is yet to be decided.

The CMDEC organized the training course in the small scale marketing strategy and the group activity management on 18 August, in which 20 trainees from women's groups were participated.

Village No. 1

The village No.1 was once very active toward sound group development but the working morale has been gradually deteriorated. This issue was highlighted at the 2nd IC meeting held on 29 August. Some portions of the products delivered are returned due to poor quality and naturally the marketing channels have become limited, which resulted in accumulated deficits in account. The meeting agreed an intervention by the Fisheries Technology Development Division of DOF in quality improvement and the District Office in management and accounting improvement.

Partly due to the above cause, the Provincial Health Office guided the for improvement of the hygienic and processing practices in the backyard plant so as to meet the required standard of the Good Manufacturing Practice (GMP) and some modification works were carried out in October. The expense incurred by this improvement work was paid by the loan from Ao.Bo.To.

In addition to that effort for quality improvement, 2 members of this group participated in the training course in the quality control of the marine product organized by the DOF in Prachuap Kilikan on 28-30 November.

Village No. 4

The main products of this women's group are dry flowers and some patties called *pankhlip* and *thongmoun*. Also, they prepare flower and colour fabric decoration on the occasions of banquets, weddings and funerals by request. The scale of transaction was meager with 8 active members as seen in the account sheets of **Annex 9**. Further, it has been suspended since June except in September when they had some activity in snack processing. This may be attributed by the reason that the housewives in the group 4 are generally fully engaged in the rubber plantations and can hardly afford to spare their time for the group work.

Village No. 6

The main business is batik printing which began in June 2004. They are producing various batik printed materials like clothes, shirts, T-shirts, bags and handkerchiefs. As seen in the table 3 of **Annex 9**, the average monthly share per a member reached as much as Baht 2,170 which is a considerable amount as they are normally working for 3 to 4 hours a day after finishing their own work (mainly rubber plantation). The number of members is 185 in total but the active and regular members who are participating in this group work account for 5 to 7.

The project identified the eco-tourism business as a potentially promising one and initiated organization of an active group during the previous reporting period. The CMDEC is acting as the core institution to organize and promote such a business in collaboration with the NGO Thai Environmental Institute (TEI). The first training course in the eco-tourism was conducted on 28-31 March 2005 in a bid to stimulate the ambition among potential ventures. As a result, the group No. 6 was selected as a village which tried out the venture as a pilot case. Since then, meetings were repeated so as to start up the business. At the 3rd meeting on 17th June 2005, the committee members to lead the group were elected and the office center was sited at the Bang Wan pavilion. Following to the guidance from the CMDEC and the TEI, the new business activity in eco-tourism has just begun with the five newly opened guest houses in the village No.6.

Babylonia shell culture

The experimental Babylonia shell culture was conducted by SEAFDEC/TD aimed at testing its applicability to the area and commercial viability in August 2005 in the wake of its preliminary study in the previous reporting period. 10,600 pcs. of Babylonia shell which were hatched at the Chumphon Aquaculture Centre in July were cultured in 9 cages in front of the village No/7. The number of cages were increased to 12 as they grew. The seeds were experimentally cultured by the contractor under the agreement with the PFG with the technical supervision by the SEAFDEC/TD. The experiment is continued until they are grown to the marketable size; i.e. 120pcs per Kg. Thereafter, the commercial viability will be evaluated. It is observed that the growth rates are 135.6% and 70.8% for the first and second month respectively with the conversion rates of 20.5% and 14.6% respectively.

Crab culturing

The experimental swimming crab culturing was initiated in May 2005 by the CMDEC in collaboration of the PFG with 1,200 crabs which were brought from Crab Trap Fishers' group after two months, and found that the growth ratios were 95.9%, 246.4% and 265.2% after one, two and three months' farming respectively. Based on the above result, it should be defined that the farmed

crab should be marketed after two months fattening from the economic point of view. The detailed report is being published. However, unfortunately, the experiment resulted in being uncompleted as most crab in the cage escaped due to the breakage of the net in October. The EMDEC plans to continue the experiment in 2006 in use of two separate cages in which male and female crabs are to be kept separately.

2.4. Enhance human resources capacity building and participation

PFG

The newly formed PFG has become active with opening the new office premises in the central location of village No.1 by themselves in September. They have an internal meeting every three months when setting in the full moon.

In addition, the PFG initiated the Saving Group in May 2005. The minimum contribution of each member is 100 Baht per month and the member has increased to 89 in December. The contributions were saved in the local bank and reached to 65,029.50 Baht at the end of October. They are going to initiate the credit scheme from April 2006 with the expected interested rate of 1% per month.

Within the community social welfare scheme, the PFG made it a rule that each member should contribute Baht 100 to a member who held a funeral.

The major issues during this reporting period were centered to the registration of the PFG with the Provincial Cooperative Promotion Office (PCPO) in the Chumphon Province. The preliminary consultation was held with the project and the PCPO on 3 November and it was suggested that a training course should be organized so as to get the fishermen understand benefits of allowing the PFG registered. Following this suggestion, the project arranged the training course in the fisheries cooperative administration and function in collaboration with the PCPO from 30 November to 3 December including study tour to the fishing villages in where a registered fishermen cooperative was well functioning. The detailed report on this training course is seen in **Annex 3**. During this training course in which 34 leading members of the PFG participated, they decided to get the PFG registered with the PCPO and application was made on 30 November 2005. The notification for the registration will be given around 15 January 2006 if all required processes are passed without any delay.

The 2nd Pakklong Fishers' Group General meeting was held on 29 August with participation of 36 fishers. The detailed description is made at length in the attached **Annex 4**. In this meeting, several issues were raised and tried to solve through discussion. For example, the representative of the mullet fishing sub-group complained about the duplicated fishing area with the crab fishing. After long discussion, it was compromised in the way that the mullet fishing lasted only 3-4 months a year from June and the crab fishers group compromised that they set their traps only night time but refrained from day-time fishing during this period, while the mullet fishing would be carried out only for day time. This is a good coordination within the community base fishery resources management regime.

The other issue raised at this meeting was on the proposal that the women's groups would merge into the PFG. After discussion, the meeting agreed to the proposal. The process to do that would commence after internal meetings among members of the women's group..

Aimed at following up the proposal and decision made at the 2nd PFG general meeting, the ad-hoc

meeting with the SEAFDEC/TD and CMDEC staff was held at the project site on 2nd November. At this meeting, some pending issues were clarified as follows.

- Experimental mud-crab culturing is not taken place as it seems to be impractical in the project site.
- Proposed change of the demarcation line to the straight extension is not considered necessary at this stage.
- The FEDs installed by SEAFDEC/TD has proved their effectiveness and the PFD endorses the request made at the meeting to increase the number.

The 3rd PFG meeting was held on 21st December and the detailed report on this meeting is seen in **Annex 5**. In this meeting, it was reported that reorganization of the PFG into the so-called "Phakklong Aquaculturists Group (PAG)" consistent with the bylaws of the farmers' groups. Some members of PFG were against such a movement and preferred to stay on the present PFG. A follow-up coordination is necessary.

Local seminar

The local seminar entitled "The Guideline for Coastal Fisheries Resources Development" was held on 30-31 August 2005 at the conference room of CMDEC to which 69 participants concerning the coastal fisheries management and community development in the project operational area were present. The main purpose of this seminar lay in restoring the useful data and information obtained through the research work to the stakeholders and also reporting the current activities pursued by the project. In doing so, various presentations as listed below were made.

- ① The result of fish landing survey - CMDEC
- ② Marine environment and oceanography in LBCFM – CMDEC
- ③ Sea grass survey – MCR
- ④ Increasing the mesh size of crab traps and its impact – CMDEC
- ⑤ Enforcement activity – Enforcement Center
- ⑥ Establishment of the Pakklong Fishers' Group – SEAFDEC/TD
- ⑦ Women's group activities – SEAFDEC/TD
- ⑧ Experimental babylonia shell culturing – SEAFDEC/TD
- ⑨ Fish-seeds releasing program – CMDEC
- ⑩ Experimental crab culturing – CMDEC
- ⑪ Activity and impact of crab bank – PFG
- ⑫ Establishment of home-stay group - CMDEC
- ⑬ Installation of fish enhancement devices (FED) – SEAFDEC/TD
- ⑭ Training program – CMDEC

The detailed description on the conclusion and recommendations of this seminar are dealt at length in **Annex 6**.

National conference on Fisheries

The DOF Thailand organized the National Conference on Fisheries 2005 in July for two days in a bid to provide fisheries researchers with occasions to present their research work done in the last one year. Some topics like babylonia shell culturing and swimming crab culturing are very relevant for the project as these experiments are under way by the project. Therefore, two researchers attended this national conference. It was a bit too academic but still learning in this conference would be conducive in the practical work in the project field work. The detailed findings were compiled in a report by the participants.

Training course

The training course in the cottage scale marketing strategy and the group activity management was organized by CMDEC on 18 August, in which 20 trainees were participated. The lecturers were brought from the Chumphon Economic College for the subject on marketing promotion while from the Pathew District Office for accounting.

The training course in resources conservation for school student was organized by CMDEC for 4 days from 17 to 20 July. The target groups were students and teachers in several primary schools in the Pakklong Sub-district with the number of 30 in total. The main themes were (1) the introduction of the project activity in the Pathew District and (2) the mangrove ecology system. The training commenced with lecturing by the CMDEC researchers on 17th and was followed by the study tour to the Prachaup Kirikhan Province where had some model cases in reforestation of mangrove trees in the school program.

The Fisheries Technological Development Division (FTDD) of DOF organized the special training course in the quality control management system in fisheries products compatible with the code of good manufacturing practices (GMP) of Ministry of Health for the small scale fish processors. The course was conducted in the Prachaup Kirikan Province from 28 to 30 November 2005 and in this training course 64 trainees were participated from 14 southern provinces. 2 of them were from the women's group No.1. of the project operational area.

Pakklong Fair

The local fair was organized by the Pakklong Sub-District Office on 19-21 October with various events like boat racing, sea boxing, a concert, an exhibition etc. The project participated in the exhibition for project activity, playing games with children and screening video on tourist attraction in Pakklong.

2.5. Rehabilitate and enhance coastal resources

Installation of FEDs

The training course in preparation and installation of fish enhancing devices (FEDs) was conducted on 24-25 August following to the pre-investigation at the site for identifying the proper location and preparation work on 10 August. In this training course, 10 sets of FEDs were prefabricated and installed.

After convincing that the installed FEDs were effective, the PFG officially submit a request to the Ao.Bo.To. to finance installation of 60 sets of FEDs amounting to Baht 387,200 in 2006 on 22nd November.

Releasing fish seeds

Releasing fish fingerings were made on 10th August with 1 million of tiger shrimp, 50,000 of sea bass. This activity was arranged by Ao.Bo.To, PFG and financed by CMDEC.

Mangrove reforestation

It was initially planned to plant 20,000 mangroves per year. On 24th August, the mangrove reforestation program was jointly organized by Ao.Bo.To and PFG with the school students and teachers in the Phakklong Sub-District.

Scenery development

The District Agriculture Office and the PFG jointly arranged the tree planting along the roads in the project operational area with three kinds of flower on 10th August. In this activity, 500 nursery trees were supplied by the District Agriculture Office and the Ao.Bo.To. officer provided other expenses. In addition, the tree planting along the road side of village number 6 was made on 3rd November. In this activities, 700 nursery trees were planted.

2.6. SC and IC meetings

The 7th IC meeting was held on 30th August at the meeting room of CMDEC in which 26 participants concerning the project operation were present. The highlighted themes of discussion were the issues on organization of PFG, establishment of local enforcement unit, supports to the women's group activity especially in group No. 1 and the Sea Food Bank. The detailed description is seen in the meeting report of **Annex 7**.

The 8th IC meeting was held on 22nd December 2005 at the meeting room of the Ao.Bo.To. office in which 29 participants were present. As a featured event, the Head of Pathew District participated in this meeting for the first time in the project history. His attendance was very useful in a sense that he could coordinate numbers of issues from administrative points of view with his capacity. This meeting was chaired by the newly appointed Director, Marine Fisheries Research and Development Institute. The detailed content of discussion is described at length in the meeting report of **Annex 8**.

2.7. Others

There was an occasion to commemorate the 79 year anniversary of the DOF Thailand. As one of events, the Fisheries Exhibition was organized in the premises of the Kasetsart University on 19 – 21 September, in which the project demonstrated the activity in posters and panels. Also, the women's group of the project area sold their products in the boost allocated to the project.

The Senegalese study tour team consisting of 8 members visited the project site on 23 – 26 September to inspect activities in coastal resources management. They were quite impressed by the wide-ranged activities covering not only coastal resources management but also total community development which were self-motivated by PFG in particular. The study tour was financed by the World Bank.

3. OUTCOMES

The major outcomes produced from the above activities during this reporting period are:

Baseline survey

- Scientific data and information are disseminated among stakeholders through the local seminar.
- More extensive marine biological data and information were obtained through the regular survey.
- A new species of sea grass was discovered in the area.

Encourage and extend the CBRM concept

- The on-going mesh size control for crab trap fishing and the crab bank scheme showed a positive impact on recovery in sizes and volume of catches.
- The preparatory work on establishment of the local enforcement unit was in progress.

- The newly organized PFG coordinated the dispute with the swallow nests collectors.

Encourage local business

- Improvement of the processing premises of group No.1 was made so as to meet the standard of the GMP. As a result, the GMP was endowed to the group.
- The printing batik and tailoring shirts and bags are well marketed by the group No.6.
- The eco-tourism group was formed with the group No. 6 and the home stay business was initiated.
- The experimental babylonia shell culturing is under way closing to completion.
- The experimental crab culturing is under way closing to completion.
- The women's group participated in the 79-year anniversary of the DOF Thailand and demonstrated selling their products.

Enhancing human resources capacity building and participation

- The awareness building on CBRM among fishermen has been further developed by exposure to the local seminar in where the research data and information on the coastal resources were presented.
- The organizational structure of the newly formed PFG is further strengthened with establishment their office.
- The active discussions were exchanged among members of PFG through the general meetings held almost monthly.
- In the wake of the training course in obtaining the legal entity for the group activity, the process of registration of the PFG with the Provincial Cooperative Promotion Office in Chumphon began.
- The local seminar on "The Guideline for Coastal Fisheries Resources Development" was conducted.
- A training course in group activity management and local marketing strategy was held.
- A training course in resources conservation for the school students was conducted.
- Participation to the Pakklong fair was made.

Rehabilitating and enhance coastal resources

- Training for fabrication of FEDs and installation of 10 units were conducted. The fishermen have convinced of their effectiveness through fish catches.
- Releasing fish seeds was made for shrimp and sea bass.
- 2,000 mangrove trees were planted.
- 1,200 young trees were planted along the road side.

Committee meeting

- The project Implementation Committee meetings were held twice.

Others

- The project participated in the 79th anniversary events of the DOF Thailand.
- The Senegalese study tour team of the WB project visited the project site.

4. MAJOR CONSTRAINTS

The featured leap made in the project in 2005 lies in establishment of the PFG. The structural organization was initiated in January with the sub-groups which upheld the apex fishermen's group, the PFG, and efforts in strengthening the institutional capacity has been exerted since then. They have voluntarily initiated the saving scheme and other ventures. As a result, the capacity as an independent fishermen's group which enable to manage the coastal fisheries resource has been built up, which is commendable. The next step for them would be obtaining the legal entity by registration with the Provincial Cooperative Promotion Office (PCPO), Chumphon. To facilitate this attempt, the project organized a fishermen training course at the end of November in

collaboration with the PCO. (refer to para. 5 in the page 7). After the training, it was realized that the old PFG had to be reorganized consistent with the bylaws of the farmers' group. Some of the members have already accepted to register their memberships with the new group called " the Phakklong Aquaculturists' Group (PAG)", while others are still hesitating to do so. The best solution would be simply shifting all memberships from the old PFG to the new PAG with unanimous consensus among all members. To do that, tenacious efforts should be exerted in accounting the process of this transition to all members fully until each member realizes the benefit of obtaining the legal entity. Until otherwise, the registration process should not be hastened. The worst scenario would be a split of the PFG into two groups; the old PFG against the new PAG.

5. WORKPLAN FOR THE NEXT REPORTING PERIOD

The perspective work plan for each activity line to be pursued in the next 6 months is as follows.

Monitoring survey

- The regular marine biological, the oceanographic, the coral and the sea grass surveys are to be continued by the responsible institution.
- The particular subject surveys like the fishing ground and fishing gear are to be commenced.

Encourage and extend the CBRM concept

- Monitoring effectiveness of the Crab Bank
- Registration of the PFG and drafting internal by-laws
- Preparation work for embodiment of the local enforcement unit

Encourage local business

- Identification and initiation of potential ventures including trainings and study tours.
- Monitoring business improvement
- Standardization of products including the improvement the quality of products and of packaging materials and designs
- Continue experimental aquaculture for babylonia shell and swimming crab

Enhance human resources capacity and participation

- School training in resources conservation
- Identification of the action plan for environmental development work by the PFG and its implementation
- Various training program

Rehabilitate and enhance coastal resources

- Monitoring marine biological surveys around newly installed ARs and FEDs
- Installation of FEDs
- Releasing fish seed; crab, sea bass and crab, by DOF
- Organize and carry out various volunteer works like beach cleaning, mangrove reforestation and scenery improvement by planting trees and flowers in the villages

Project management meetings

- A Steering Committee (SC) meeting in January.
- Project Implementation Committee (IC) meetings in March and June

6. REPORTS PREPARED

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

<u>No.</u>	<u>Title of the report</u>	<u>Name of author(s)</u>	<u>Date of issue</u>
01.	Report on Participation in the Conference of Fisheries	Saivason K.	July 2005
02.	Report on the 7th Implementation Committee Meeting of ICRM-PD	Saivason K. & Sumitra R.	Sept. 2005
03.	Report on Coastal Resources Management and Rehabilitation Training Course for Students	Jirapa K.	August 2005
04.	Report on the 2 nd Pakklong Fishermen's Group Meeting	Jariya S.	Sept. 2005
05.	Travel Report – Chumphon (14-16 September)	Sumitra R.	Sept. 2005
06.	Report on Local Seminar "The Guideline for Coastal Fisheries Resources Development"	Saivason K.	Sept. 2005
07.	Report on Fishermen's Training Course in Cooperative Administration and Function	Sumitra R. & Saivason K.	Dec. 2005
08.	Report on the 3 rd Pakklong Fishermen's Group Meeting	Saivason K.	Dec. 2005
09.	Report on Local Seminar on the guideline for Coastal Fishery Resources Development	Saivason K.	Sept. 2005
10.	Travel Report – Chumphon (20-22 December)	Sumitra R.	Dec. 2005
11.	Report on the 8th Implementation Committee Meeting of ICRM-PD	Jariya S.	Dec. 2005

Annex 1

Annual activity monitoring sheet for 2005 (ICRM-PD)

Planned : 
 Executed : 

Rev. 2 on 30.08.05
 As of 30.12.05

Activity	2005												Responsible organization								Remarks					
	1	2	3	4	5	6	7	8	9	10	11	12	SEA/DEC	CM/DEC	MCR	POOF	CFUE	FTDD	DAGO	SAD		RP	PCA	SCH	PFG	
1. Monitoring survey																										
1.1. Fisheries data collection																										
1.1.1. Regular marine biological survey (monthly)																										
1.1.2. Regular marine environmental survey (every 3 month)																										
1.2. Survey on particular topics and subjects																										
1.2.1. Monitoring survey on collapsible crab trap fisheries management																										
1.2.2. Survey on coral and sea grass (every 2 months)																										
2. Encourage and extend LBOPM concept																										
2.1. Reorganize & promote Crab Bank																										
2.1.1. Reorganization of Crab Fishers' Group (CFG)																										
2.1.2. Monitoring management of CFG																										
2.1.3. Internal evaluation of CFG																										
2.2. Recognize fisherman's group																										
2.2.1. Preparatory work on forming fisherman's groups (FG)																										
2.2.2. Organizing fisherman's groups																										
2.2.3. Monitoring management of FGs																										
2.3. Review and embody zoning arrangement																										
2.3.1. Review on validity of present zoning arrangement																										
2.3.2. Formulation of new zoning arrangement, if necessary																										
2.3.3. Promulgation process of new zoning arrangement																										

Activity	2005												Responsible organization							Remarks					
	1	2	3	4	5	6	7	8	9	10	11	12	SEA/DEC	CM/DEC	MCR	PDOF	CFUE	FTDD	DAGO		SAO	RP	PCA	SCH	PFG
2.4. Embedment of local enforcement measures																									
2.4.1. Preparatory work on organization of local enforcement unit																									
2.4.2. Preparatory work to put LEU into action																									
2.4.3. Functioning LEU																									
3. Encourage local business																									
3.1. Expansion of local business																									
3.1.1. Identification of potential local business																									
3.1.2. Introduction and demonstration of local business																									
3.1.3. Monitoring business improvement																									
3.2. Standardization of products																									
3.2.1. Investigation of current practices for production																									
3.2.2. Training and/or advices for improvement and follow up																									
3.2.3. Application for Good Manufacturing Practice (GMP)																									
3.3. Improvement of group managements																									
3.3.1. Identification of group management problems																									
3.3.2. Training and/or advices for improvement and follow up																									
3.4. Expansion of marketing channels																									
3.4.1. Investigation on marketing channels and promotion opportunities																									
3.4.2. Training and/or advices for marketing promotion																									
3.5. Promotion of amaranth in aquaculture																									
3.5.1. Continue Babylonia shell culture development																									
3.5.2. Continue efforts in artificial feeding for cage culture																									

Activity	2005												Responsible organization							Remarks					
	1	2	3	4	5	6	7	8	9	10	11	12	SEAFDEC	CMDEC	MCR	PDOP	CFUE	FTDD	DAGO		SAO	RP	PCA	SCH	PFG
4. Enhance human resources capacity building & participation																									
4.1. Restoration of success results																									
4.1.1. Stakeholders' workshop on research results																									
4.2. Awareness building on coastal resources conservation																									
4.2.1. Fishermen's workshop on CBRM																									
4.2.2. Study tour for eco-tourism																									
4.2.3. Training for school students in CBRM																									
4.3. Participation in environmental conservation & development work																									
4.3.1. Identification of action plan for environmental development work																									
4.3.2. Workshop on the impact given by environmental development																									
4.3.3. Implementation of environmental development work																									
5. Rehabilitate and enhance coastal resources																									
5.1. Improvement of marine habitat																									
5.1.1. Monitoring marine biological survey on ARs																									
5.2. Fish restocking program																									
5.2.1. Releasing fish seeds																									
5.2.2. Monitoring marine biological survey on released fish																									
5.2.3. Experimental restocking of FEDs																									

Activity	2005												Responsible organization							Remarks			
	1	2	3	4	5	6	7	8	9	10	11	12	SEA/DEC	CM/DEC	MCR	PDOF/CFUE	FTDD/DAGO	SAO	RP		PCA	SCH	PFG
	5.3. Improvement of coastal environment																						
5.3.1. Beach cleaning																							
5.3.2. Scenery development (e.g. tree planting)																							
5.3.2. Mangrove reforestation																							
6. Committee Meeting																							
6.1. Steering Committee meeting																							
6.2. Implementing committee meeting																							

- SEA/DEC: South East Asian Fisheries Development Centre / Training De
 - CM/DEC: Chumphon Marine Fisheries Research and Development Centre
 - MCR: Chumphon Marine and Coastal Resources Research Centre
 - CFUE: Chumphon Fisheries Enforcement Unit / DOF
 - RP: Royal Project
 - SCH: School
 - FTDD: Fisheries Technological Development Division / DOF
 - PDOF: Provincial Fisheries Department Office / DOF
 - SAO: Sub-district Administration Office(Ao.Bs.To)
 - DAGO: District Agriculture Office
 - PCA: Prachaunkirakan Coastal Aquaculture Research and Development C
 - PFG: Pakklong Fishermen's Group

- I: Implementing agency
 - S: Supporting agency
 - P: Participating agency

Annex 2

Travel Report - Chumphon

14-16 September 2005

Sumitra Ruangsivakul
19 Sept. 2005

Objectives

- To discuss on package development and accounting with Women's group No. 1
- To inform the ICRM-PD exhibition in DOF's birthday fair to women's group no. 1 and 6, and bring their products to sell at DOF's fair on 19-21 September 2005.
- To inform the WB's visiting on 24-25 September to PFG and Women's group.
- To collect data of babylonia shell experiment and some data from crab bank.
- To participate the PFG meeting and agency concern on fishing ground around bird nest island.

Agenda content

14 September 2005

Meeting with Women's group no. 1

- The first proposed, discussion on problem from the local seminar, this problem discussed with Leader group, leader assistant of women's group no. 1 and SEAFDEC's staff, the leader of the group informed that, the sewing machine will be supported by Rural Development Department, the price is 50,000 baht. The problem on packaging, she explained on her package that, the package was two levels, depend on the marketing channels. The products in Chumphon will be cheap, so package is not good quality, but she will check the products in Chumphon every two weeks. The package for festival fair will be good quality, but the price of products will be expensive. More information, group can sent and sell products in Chumphon and Bangkok's fair very high number at last month.
- The second proposed, invited group to sell products at DOF's birthday fair on 19-21 September 2005, but the products of this group will be bring by Chumphon Fisheries Provincial to sell that fair already.
- The third proposed, WB will be visited this group on 25 September, leader group said that, she will be study tour to northeastern part on 25-30 September by Ao.Bo.To. The Assistant leader of the group will take charge of this duty.

15 September 2005

PFG visiting

- PFG's chairman informed that, there are four responsible works in this time; the first work, he has to survey the volunteer fishermen in Pakklong Sub-district to register on fishing boat. This program will assist fishermen to take loan from the bank by using the fishing boat registration. FA (Fishermen Association) in Chumphon Province was action this program.

- The second work, PFG's member requested a permanent office from Ao.Bo.To. at the same office of enforcement unit, after Ao.Bo.To. approved the budget in next year.
- The third work, the walk way in mangrove forest in Pakklong Sub-district. In the last two years ago, the walk way built by Thai Environment, but it was destroy now. The new walk way approved by Ao.Bo.To., but the owner of area to pass to mangrove walk way was not allow to build. PFG try to find the new area for build the walk way.
- The fourth work, discussion on fishing ground near bird nest island, the representative of bird nest business said that, only fishing boat from Pakklong Sub-district can fishing, but fishing boat from outside can not come to fishing near bird nest island. How to know what boat is in Pakklong and what boat come from outside.
- PFG informed on Pakklong boat racing festival, this festival will be held on 19-21 October 2005, by invited ICRM-PD project to arranged the exhibition on resource conservation and resource enhancement. The festival have boat racing, each fishing gears sub-group sent team to this racing, and they requested T-shirt for boat racing from SEAFDEC, the number of t-shirt is 200 pieces, the price is 100 baht per piece.

Data collection on babylonia experiment

- The data collection will be collect two ways, the first way will be follow by Mr. Etoh. There are 4 data to collecting, weight the total of shell is 100 g. and count the number of shell in 100 gm. Each shell will be weight, and calculate average weight of one shell. The period of data collection is 2 weeks per time. The last of data is weight of feed in two weeks.
- The second way, follow by Ms. Jirapa, there are 2 data to collecting, 30 shells of each cage will be weight and measure size of each shell. There are 9 cages to recorded, the total of shell was 270 pieces.
- 100 gm of shells can count 89 shell, the average weight of shell is----- . The weight of feed is 14.4 kg (started from 26 August to 15 September).
- From observation, the condition of shell is not well growth, the size different, may be more feed by give 2 times per day. The cage was dirty with sea weed, Mr. Natea requested new cage for move shell to new cage, and clean old cage and collect identical sizes of shells to culture in the separate cage.
- SEAFDEC will be build 3 new cage to him, the new cage can use the budget of babylonia experimental activity.

16 September 2005

PFG's meeting on fishing ground around bird nest (Rang Island)

Objectives:

- Fishermen would like to clear the conflict between fishermen and bird nest company.
- Fishermen would like to change some regulation.

Participants:

- Deputy of Chumphon Provincial Officer, Representative of bird nest company and Province (he is committee of bird nest tax)
- Pathew District Officer
- Pathew District Fisheries Officer

- Policeman
- Leader of Pakklong Sub-District
- Ao.Bo.To. Pakklong Sub-district
- One officer from enforcement unit
- 2 Officers from CMDEC
- 3 Officers from SEAFDEC/TD
- 50 fishermen

Meeting contents:

- Leader of PFG, Mr. Wara informed the background of this meeting that, fishermen was shoot by bird net company, when they was fishing near Rang island in night time. So fishermen in Pakklong Sub-district would like to know the regulation of bird nest have permitted with Ao.Bo.To. Pakklong.
- Officer from Province and representative of bird nest company informed that, there are 3 islands of Pakklong Sub-district have concession, company will be pay 893 million baht of tax in 5 years to Province, and Province will pay 60 million baht per year to Ao.Bo.To. Pakklong.
- The main regulation of bird nest company to fishermen, to prohibited fishing 500 m. far from island, especially in night time, because the light of fishing will be disturbed bird come to island.
- Fishermen requested to changed some regulation that,
 - The area for fishing may be prohibited is 300 m. far from island,
 - Around island make signal by flag and light to show the area for prohibited.
- Committee of bird nest tax made the new regulation for fishermen that,
 - Fishermen must decrease power of light, and number of light (from 3 line to 2 line of light), when they come to fishing near island.
 - Fishermen don't come to fishing near the front of cave, because bird will be come to cave in night time.
 - Squid cast net don't come to fishing in 500 m. far from island, because the light of this gear is too strong.
- The comment from meeting between company and fishermen that,
 - Please use flag, buoy and light at the four area around island, but company comment that many buoy was cut any time.
 - If company shoot gun to fishermen, how to do? Policeman said that, fishermen informed to police anytime, but fishermen must have evident.
 - Fishermen give idea on the protect area around island that, may be install ARs around island, representative of company agree this idea, but the area for installation may be discuss in committee meeting.

Annex 3

REPORT ON FISHERMEN'S TRAINING COURSE IN COOPERATIVE ADMINISTRATION AND FUNCTION ICRM-PD 29 November to 3 December 2005

Sumitra Ruangsvakul
Saivason Klinsukon
26 December 2005

1. Background:

The project organized a fishermen's training course in "The steps toward the legalization of the fishermen's cooperative society" in collaboration with Cooperative Promotion Officer (CPO) of Chumphon Province from 29th November to 3rd December 2005. This training course included the study trip to Bang Pat Fisheries Cooperative at Phangnga Province which is recognized as a fishermen cooperative with tangible success in group management. The experience and knowledge gained through their past activity are certainly conducive for then newly formed Phakklong Fishermen's Group (PFG). In addition, the visit to the Shrimp Central Market was made. This was operated at Klong Kien Sub-District, Phangnga Province, by a fishermen's group imparting fishermen stable income through their central marketing system.

2. Objectives:

- Training the leading fishermen of the PFG in administration and function of the fishermen's group
- Proceed the processing of application for the fishermen's group under the CPO of Chumphon Province

3. Agenda and itinerary the training course:

29 November 2005

0800-1500	Move SEAFDEC/TD staff to Chumphon Province
1530-1700	Discussion and preparing training program and venue with PFG
1800-1900	Discussion with Head of Group Forming, Chumphon Cooperative Promotion

30 November 2005

0900-1100	Lecturing the steps toward legalization of fishermen's group
1100-1200	Election the committee members for registration
1300-2000	Leave from Chumphon to Phuket Province

1 December 2005

0730-0900	Leave from Phuket to Bang Pat Fisheries Cooperative, Phangnga Province
0900-1200	Visiting and discussion with Chairman and Committee of Bang Pat Fisheries Cooperative

1430-1600	Visit Phuket Aquarium
<u>2 December 2005</u>	
0730-0900	Leave from hotel to Ban Klong Klean, Phangnga Province
0900-1200	Visiting and discussion with Chairman and committee of Shrimp Central Market Net Work at Ban Klong Klean
1200-1900	Move for Chumphon Province

5. The results

5.1. Training in the steps toward legalization of fishermen's group, 30 November 2005

List of participants

SEAFDEC/TD

1. Mrs.Sumitra Ruangsivakul
2. Ms.Saivason Klinsukhon
3. Ms.Rattikarn Pongjit(staff at project site)

CMDEC/DOF

1. Ms.Thitiporn Supanirun

Chumphon Cooperative Promotion Office

1. Ms.Supavadee Pattanakit

Fishermen's group

- | | |
|--------------------------|------------------------------|
| 1. Mr.Chang Phungphueng | 21.Mr.Somjai Promkate |
| 2. Mr.Wichean Titada | 22.Mrs.Mean Promkate |
| 3. Mrs.Bunaoun Somsorn | 23.Mrs.Aoumporn Bunnak |
| 4. Mr.Jedsada Saad | 24.Mrs.Kotchamon Titada |
| 5. Mr.Wara Kateaumpai | 25.Mr.Saman Rattanapakdee |
| 6. Mr.Tippavan Noratod | 26.Mr.Aim Poyeam |
| 7. Mrs.Douarung Noratod | 27.Mrs.Wachira Rattanapakdee |
| 8. Mr.Aumphon Sritongkul | 28.Mr.Nara Wanyanit |
| 9. Mr.Mana Noratod | 29.Mr.Somchok Promkate |
| 10.Mrs.Jaree Srisaksuna | 30.Mrs.Ooy Yusuk |
| 11.Mrs.Warin Katekaew | 31.Mr.Kijja Janpathew |
| 12.Mr.Prawit Panmong | 32.Mr.Wichai Wichapanit |
| 13.Mr.Anu Suntorn | 33.Mr.Wirat Saelim |
| 14.Mr.Chumphon Saemoon | 34.Mr.Adisak Saeheng |
| 15.Mr.Montri Bunmueng | 35.Mrs.Sucheap Kullamat |
| 16.Mr.Jarae Kulapsri | 36.Mr.Winai Katekaew |
| 17.Mr.Bunsong peansanong | 37.Mr.Suppasak Saikate |
| 18.Mr.Read Sangploy | 38.Mr.Ponrat Petchdee |
| 19.Mr.Winai Sakulnum | 39.Mrs.Saifon Petchdee |
| 20.Mr.Songkarn Janpetch | |

Content of Meeting

- Mrs. Sumitra explained the background of Integrated Coastal Resources Management in Pathew District (ICRM-PD) that, this year the project focused on encourage fishers' group to fisheries management and resource rehabilitation. Now the Pakklong Fishermen Group (PFG) shows their success in resource management. The next step of this group may be registration with an appropriate government institution.
- Ms. Supavadee Pattanakit, Head of Group Forming, Chumphon Cooperative Promotion, explained the comparison between illegal group and legal group to fishermen.
- More information of this lecture, she explained the steps toward legalization of fishermen's groups, the structure of cooperative, merits and demerits of cooperative. She proposed farmers' group to fishermen, because the farmers' group is small group and simply a group. The farmers' group will have a few members and received government's support. Fisheries Cooperative should be a big group with a lot of business activities. In fact, the government supports the farmers' group more than fisheries cooperative, because a farmers' group consists of poor farmer.
- Ms. Supavadee described merits and demerits of farmers' group, after registration that, group will receive supports from the government and other organization, like equipment, accounting inspection, training and knowledge. The demerits of registration are that, the committee does not seriously work and the members do not collaborate working in group. As a result, the group can not succeed.
- The fishermen's group agreed in registration with a farmers' group. The name of group is Pakklong Farmers' Group (PFG). The location of group is 52/2 Mo.1 Pakklong Sub-district, Pathew District, Chumphon Province. The fee is 100 Bath for new member. There are 34 members at the first time. Among those the committee have 7 members. The value of share is 10 bath/share, one member can not buy share more than 1/5 of total.
- The name of committee of Pakklong Farmers' group

Mr. Wara Kateaumpa	Chairman
Mr. Winai Katekaew	Vice Chairman
Mr. Wichean Titada	Member
Mr. Aumphon Sritongkul	Member
Mr. Jedsada Saad	Member
Mrs. Bunaoun Somsorn	Secretary
Mrs. Aoumporn Bunnak	Treasurer
- The next meeting will be held at site again, after group registration is completed. Head of Group Forming of Chumphon Cooperative Promotion is to explain the regulation and activity of Farmers' group to the members.
- The meeting closed at 1130 hr.

5.2. Study trip to Bang Pat Fisheries Cooperative, Phangnga Province

List of participants

SEAFDEC/TD

1. Mrs.Sumitra Ruangsivakul
2. Ms.Saivason Klinsukhon
3. Ms.Rattikarn Pongjit(staff at project site)

CMDEC/DOF

1. Ms.Thitiporn Supanirun

Fishermen's group

1. Mr.Wara Kateaumpai
2. Mr.Chang Phungphueng
3. Mr.Tippavan Noratod
4. Mr.Mana Noratod
5. Mr.Adisak Saeheng
6. Mr.Ponrat Petchdee
7. Mr.Winai Katekaew
8. Mr.Somjai Promkate
9. Mrs.Wachira Rattanapakdee
- 10.Mrs.Aoumporn Bunnak
- 11.Mrs.Bunaoun Somsorn
- 12.Mrs.Kotchamon Titada

Bang Pat Fisheries Cooperative, Phangnga Province

- | | |
|------------------------------|------------------------------------------------------------|
| 1. Mr. Paiboon Panichsongkoh | Assistant, Phangnga Cooperative Promotion |
| 2. Mr. Suvicha | Head of Mobile Cooperative Promotion,
Phangnga Province |
| 3. Mr. Yusok Malasri | Chairman of Bang Pat Fisheries Cooperative |
| 4. Mr. Sutthipong Sunglang | Treasurer, Bang Pat Fisheries Cooperative |

Meeting and Discussion

- Mr.Yusok, Chairman of Bang Pat Fisheries Cooperative explained the history of Bang Pat Fisheries Cooperative that was established in 1998. Initially, there were 32 members, and 39 of members now. The mostly members is fishermen on crab gill net, cage culture and processing on shrimp paste.
- In 2004, Bang Pat Fisheries Cooperative received the budget from the OTOP channels, Baht 700,000 for glossary. The main products of this group was shrimp paste, after tsunami disaster to this area, the resource was decline.
- The problem of cooperative came from the committee. Sometime, the committee was not seriously working and the members are not in collaboration in working in group. The new committee will be selected.
- The second problem of cooperative was loan. When the members borrowed loan from cooperative and they did not return to the group. For this, the problem can be solved by law.

- The strong point of fisheries cooperative, after registration, the group receives supporting on budget and some equipment from the Cooperative Promotion Department, Government agency concerned, DOF, Ao.Bo.To., Agriculture Bank, Agricultural Cooperatives , Wildlife Fund of Thailand and FAO.
- After Tsunami disaster, the group received 10 engines of Yanmar made from the Wildlife Fund of Thailand; the price of each engine was 36,000 Baht. The members can receive engines on credit without interest. The refund payment is 1,000 Bbaht per month.
- More information by Mr. Paiboon, Assistant, Phangnga Cooperative Promotion on the merit of cooperative that,
 - Do not pay tax to government
 - Cooperative system will return any profit to the members
 - Government will support the cooperative with accounting inspection

5.3. Study trip to Central Market at Klong Kien Sub-district, Phangnga Province on 2 December 2005

Content and Discussion

The meeting started on 09.30AM at Klong Kien Sub-district Administrative Organization (Ao.Bo.To.)

- Mr. Prasert, Deputy, Ao.Bo.To. Klong Kien welcomed the fishermen from Chumphon. He introduced the committee of shrimp central market network that;
 - Mr. Worachat Tanabut Chairman of Shrimp Central Market Network of Klong Kien Sub-district
 - Mr. Teerayut Kovit Vice chairman
 - Mr. Supparad Extension Officer, DOF in project site
- Mr. Worachat, Chairman of Shrimp Central Market Network explained the history of central market activity that, in 1996, the BOBP project established Community Based Fisheries Management (CBFM) project at Klong Kien Sub-district. The main product of this area was shrimp which can be caught whole year round.
- This project started and implemented activities that;
 - Every two month called the leader meeting of the village, collecting information on problem and discussion with solution
 - Mangrove Reforestation, Crab conservation, Sea-grass zoning, these activities will be awareness on resource conservation.
 - The main problem of this area: trawlers and push netters, track force of this group cooperated with provincial and DOF to protected fishing ground, now this problem has improved, the resource increasing.
 - The second problem, if the resources increased, but the price of products were remained at low price. In 1999, the shrimp central market activity was implementing. The first area was village no. 7 (Ban Had Sai Peuk Hoi), one village of project site. Now this activity have implemented at village no. 4, village no. 1 and village no. 8 respectively. The group regulation will be used the same.
 - In 2002, this area has established the shrimp central market net work. The reason to established net work lies in that the benefit of worker in each group was a big money per

month, some member would like to work this position. The committee of each group have meetings to discuss on this issue. The last of discussion was that; big group can be cut to small group (not less than 10 fishing boats), but must apply the same regulation.

- Mr. Teerayut Vice Chairman of Net Work, explained the group management on central market that;
 - The shrimp central market net work in this time is composed of many sub-groups, each group must have fishing boat less than 10 fishing boats. One group has a committee, which is composed of a chairman, a vice chairman, a secretary, a treasurer and a marketing person. The chairman of each group will be one member of committee of net work.
 - The employee (worker) of each group, came from the middleman. He must work as a weight recorder and accountant.
 - The group regulation on shrimp selection, there are 5 sizes of shrimp as follows as; the size of 10 shrimps was No. 1, 20 shrimps was No. 2, 30 shrimps was No. 3, 40 shrimps was No. 4 and more than 50 shrimps was No. 5.
 - The benefit of group came from member and the increasing of weight. The member pay 3% of commission to the group. The profit of group will be paid to worker and return to member every six months.

- Mr. Supparad, Extension officer, the DOF, explained more on the future plan that; adding aquaculture group in the net work, the main culture was grouper cage culture, providing materials and some necessary equipment to member, return fund to the group only 40% of each member.
- In 2004, Children of the sea project established in this area, the main objectives was improving living standard of fisheries community, the first year program have done, by providing the lunch to school, and arrangement the program on environment to school.
- The future plan of this project will extend this program to all schools of Klong Kien Sub-district.
- The questions from Chumphon site to Shrimp Central Market Net Work;
 - How to inform group at the first time, BOBP project provided the budget to discharge a debt from middleman. But the debt of fishermen is small, about 7,000 – 8,000 baht per fishermen. The first group established, there was 21 member, only 8 fishermen had debt.
 - How to sale products, and what kind of products to sale, the representative members of marketing called middlemen for auction, the main of products were shrimp, swimming crab and eligo fish, but the group uses only shrimp to auction.
 - In case of Chumphon, it is different of products and fishing cost. Please introduced the system to Chumphon, Initially, the group must have more fund to rotation, and member will be return fund to the group by punctuality.
 - Where the money pay to worker of group, the benefit is received at 3% from members when he sells shrimp to the group and the weight of shrimp will be increased from freezing. The profit will be provided to worker at 40%, 60% will be keep in group, every 6 months will be given to member 50% and committee 50%.

Annex 4

Report on the Second Pakklong Fishermen's Group Meeting on 29th August 2005

Jariya Sornkliang
5th September 2005

1. Background

In the wake of the 1st PFG meeting held on 22nd March, the 2nd PFG meeting was organized at the Community House in the Pakklong Sub-district on 29th August 2005 to discuss numbers of management issues encountered by the PFG.

2. List of participants

<u>Name</u>	<u>Sub-group</u>	<u>Position</u>
01. Mr. Vichean Tithada	Squid-Anchovy cast net	Sub-leader
02. Mr. Vinai Ketkaew	Mackerel gill net/Squid cast net	Committee
03. Mr. Chaiwat Lhoajinda	Coastal Fishermen	Leader
04. Ms. Pranom Boonchoo	Squid-Anchovy cast net	Sub-leader
05. Ms. Varin Ketkaew	Squid-Anchovy cast net	Sub-leader
06. Mr. Sakol Phongphaw	Mackerel gill net/mussel culture	Member
07. Mr. Jadsada Sa-ard	Crab gill net	Committee
08. Mr. Dum Chaivisit	Crab trap	Committee
09. Ms. Jinda Thongchum	Crab trap	Secretary
10. Mr. Lim Hongpan	Crab trap	Member
11. Mr. Pisarn Jeenthanom	Crab trap	Sub Leader
12. Ms. Pornpen Srithongkul	Squid-Anchovy cast net	Sub-leader
13. Mr. Jang Phungpheang	Crab trap	Secretary
14. Ms. Malai Phungpheang	Crab trap	Leader
15. Mr. Jongkol Phajonpichit	Women's group No.6	Member
16. Mr. Sawang Krairarai	Women's group No.6	Advisor
17. Mr. Somboon Chajae	Squid-Anchovy cast net	Sub-leader
18. Mr. Prasong Khaosa-ard	Crab trap	Member
19. Mr. Payao Srijan	Squid trap	leader
20. Mr. Rheed Sangploy	Mussel culture	Sub Leader
21. Mr. Surin Laenthong	Coastal Fishermen	Committee
22. Ms. Areeya Vichaidit	PFG	Secretary
23. Ms. Pimphan Thippawan	Women's group No.4	Member
24. Ms. Sangjan Ubonkarn	Women's group No.6	Member
25. Ms. Yupin Thongreang	Women's group No. 1	Member
26. Mr. Pravit Panmoung	Squid-Anchovy cast net	Sub-leader
27. Mr. Manot Prathatpiboon	Head of village No.1	Member
28. Ms. Vanna Somsorn	Squid-Anchovy cast net	Sub-leader
29. Mr. Vachira Rattanapakdee	Mussel culture	Committee
30. Ms. Reamjit Treenunthawan	Squid-Anchovy cast net	Sub-leader
31. Mr. Natee Yoosuk	Fish culture	Member
32. Ms. Vanna Petdee	Women's group No.1	Leader

33.Ms.Uthit Chatan	Women's group No.1	Member
34.Mr.Anuwat Numma	Ao.Bo.To Member from village No.7	
35.Mr.Somthawin Khoasa-ard	Ao.Bo.To Member	
36.Mr.Yud Petdee	Mussel culture	Member

3. Content of the discussion

Item 1: Opening address by Mr.Etoh

Mr.Etoh informed that the first Pakklong Fishermen Group (PFG) meeting was arranged on 22 March 2005. This meeting is the second one. The PFG meeting should be arranged at least twice a year. There is a PFG pamphlet describing its organization, responsibility, activity and structure. The pamphlet will be updated every year. In Japan, it passed 50 years to become the present status of fishermen's group. In Chumphon, the PFG has just started and need many years to develop. The next step of this group is to make a regulation and register with the authorities enabling to request some funds from the government and other organizations. Fishermen should participate in development work through the brainstorming process to finding solutions.

Item 2: Babylonia culture by Ms.Jirapa Komhongsa

Because Babylonia can be sold at high price and marketed widely and found in natural in Pakklong, it is considered suitable to culture Babylonia here. Therefore, Babylonia culture experiment has carried out by SEAFDEC in cooperation with the aquaculture sub-group. It was started on 25th of August 2005.

Recommendations and Discussions

- 1) Fishermen proposed the project of cockle and mud-crap culture.
- 2) Fishermen proposed the project of mussel culture. The mussel culturing has been tried out without success because of the marketing problem.
- 3) Mr.Jang Phuangpheang asked on how long Babylonia culturing should last. The answer was 6 months.
- 4) Mr.Swang Krairarai proposed that some fishermen did not know about Babylonia. The fishermen should be taken the Babylonia culture farm by the project.
- 5) As no Babylonia culturing in a cage has been made in Pakklong area, this is the first experiment here. So it should be waited the result from this experiment as most Babylonia culture is commonly done in pond in other parts of Thailand..

Item 3: Installation of FED by Ms.Sumitra Ruangsivakul

The 9 units of FED were installed on 24th of August 2005 in the position from Kho Lung to the south. It is a collaboration work between SEAFDEC and PFG. The objectives of FED lie in enhancement of fish habitat and protection from trawlers' encroachment.

Recommendations and Discussions

- 1) Fishermen wanted to increase FEDs.
- 2) Mr.Jang Phuangpheang proposed that more FEDs to be installed in the north of Kho Lung.
- 3) Fishermen are concerned about the durability of FED in service.

Item 4: Crab bank by Ms.Sumitra Ruangsivakul

The Crab bank was initiated by the project of Mangrove Conservation in Thumgnaha Bay network. Under this project, it was planned to restore the mangrove forest in Thungmaha Bay. The Thailand Environment Institute and the Mangrove Sustainable Conservation and Enhancement in Thumgnaha Bay network are the organizations which started Crab Bank. Today, the Crab Bank is receiving budget from DOF and Ao.Bo.To.

Recommendations and Discussions

- 1) Mr.Jang Phuangpheang said that Ao.Bo.To. supports building ponds to keep crabs. In June 2004, He got 216 pieces of mother crabs from members, while he got 1,200 pieces of mother crabs in June 2005.
- 2) Fishing ground of crab overlaps with the mullet gill net fishing area. The solution is that crab trap fishing is carried out in day time while mullet gill net fishing is done in night time.
- 3) Changing bottom mesh size of crab traps to 2.5 resulted in catching bigger size of crabs.
- 4) The experiment of crab culturing showed the positive result which could market crabs with the size of 10 pieces/kg at 170Bath/kg.

Item 5: Women's group by Ms.Jariya Sornkliang

There are 3 groups in Pakklong. Those are Women's group No.1 producing anchovy Products, Women's group No.4 producing snacks and dealing with decoration at various ceremonys, and women's group No.6 producing Batik products. This presentation suggested that the Women's group should work under the PFG. As a result, the women's group agreed to join to the Pakklong Fishermen Group

Item 6:Other information

- 1) Department of Skill Development under the Ministry of Labour and Welfare will take the committee of women's Group No.6 to Ayutthaya province.
- 2) The PFG should join to the activity of the Eco-tourism group.
- 3) DOF should allow the member of mussel group to allocate separately a mussel culture area.
- 4) There are the 600 rai area for mussel culture in Pakklong.
- 5) Mr.Jang Phuangpheang asked some areas for crab culturing because a good result was obtained from the experiment.
- 6) The Batik's group asked a sew machine to make Batik's products for increased income to members.

Item 7: Closing address by Mr.Etoh

He expressed his thanks to fishermen for attending this meeting. Fishermen should propose any problems arisen to the PFG meeting through the committee of each sub-group. Because, everything must be requested from the leader of PFG to the government and other organizations.

Annex 5

Report on the 3rd Pakklong Fisherman's Group meeting on 21st December 2005

Saivason Klinsukhon
4th January 2006

1. Background

In the wake of the 2nd PFG meeting held on 29th August, the 3rd PFG meeting was organized at the Community House in the Pakklong Sub-district on 21st August 2005 to discuss numbers of management issues encountered by the PFG.

2. List of participants

SEAFDEC/TD

1. Mr.Sei Etoh
2. Mrs.Sumitra Ruangsivakul
3. Ms.Jirapa Kamhongsa
4. Ms.Jariya Sornkliang
5. Ms.Saivason Klinsukhon
6. Ms.Rattikarn Pongjit(staff at project site)

CMDEC/DOF

1. Mrs.Nopparat Nasuchon
2. Ms.Thitipon Supaniran

PFG's Group

<u>Name</u>	<u>Sub-group name</u>	<u>Status</u>
01. Mr. Wara Kateumpai	Squid-Anchovy cast net	Chairman of PFG
02. Mr. Vichean Tithada	Squid-Anchovy cast net	Sub-leader
03. Mr. Vinai Ketkaew	Mackerel gill net/Squid cast net	Committee
04. Mr. Jadsada Sa-ard	Crab gill net	Committee
05. Ms.Jeamjit Krairarai	Women's group No.6	Leader
06. Mr.Pravit Panmoung	Squid-Anchovy cast net	Member
07. Mr. Somchat Somsorn	Squid-Anchovy cast net	Committee
08. Mr.Vachira Rattanapakdee	Mussel culture	Committee
09. Mr. Natee Yoosuk	Aquaculture	Sub-leader
10. Mr. Thippawan Noratod	Squid-Anchovy cast net	Sub-leader
11. Mr. Umpon Sritongkul	Squid-Anchovy cast net	Committee
12. Mr. Montri Bonmeung	Squid-Anchovy cast net	Member
13. Mr. Chaleau Bonchu	Squid-Anchovy cast net	Sub-leader
14. Ms. Heag Saeghoua	Women's group No.6	Member

15. Ms. Pensri Yoosuk	Women's group No.6	Member
16. Ms. Utai Uchanon	Women's group No.6	Member
17. Ms. Saloua Sokchana	Women's group No.1	Member
18. Ms. Nipa Kaewtong	Women's group No.1	Member
19. Mr. Jeerawat Suwanbut	Aquaculture	Member
20. Mr. Cheaud Kaewmanee	Aquaculture	Committee
21. Mr. Chumphon Semul	Squid-Anchovy cast net	Sub-leader
22. Mr. Wirat Saelim	Squid-Anchovy cast net	Sub-leader
23. Mr. Paitoon Saelee	Squid-Anchovy cast net	Sub-leader
24. Mr. Jamnong Srijan	Squid crab	Sub-leader
25. Mr. Wichai Wichapanit	Squid-Anchovy cast net	Sub-leader
26. Mr. Taewan Pornwiladsiri	Aquaculture	Member

3. Content of discussion

Item I : Opening by Mr. Etoh

Mr. Etoh expressed his appreciation recognition of the marked progress made by the Pakklong's Fisherman Group (PFG). The group activity by PFG gives numbers of benefits for people in project area. The next step is the legalization of PFG entity. When the PFG gains the legal entity, this group will receive considerable amounts of support from the government and other organizations.

Item II : Status of membership by Ms. Saivason

Ms.Saivason explained the status of membership in PFG. The structure of PFG have 7 groups that were the squid cast net group, the squid trap group, the crab gill net group, the crab trap group, the mackerel gill net group, the Thumtong fisherman's group and the aquaculture group.

Recommendations and Discussions

For the proposed registration, the consensus has not been reached among all members and more deliberation is required.

Item III : Status of saving by Ms. Saivason

Ms. Saivason explained savings of PFG. The PFG established the saving group on 1 July 2005. The initial membership is 71 with the savings of 8,300 Bath. Every month, the member deposit money in group. The minimum saving money is 100 Bath. The savings are deposited in bank. After 1 year, the member can borrow money from the group. Now, the number of member has reached to 89 persons with the saved money of 65,029.50 Bath.

Recommendations and Discussions

- 1) After registration of the group, the members need to remove saving money in the saving group to the new registered in case that the new registered group would be organized.

Item IV : Legalization of PFG entity

Ms. Saivason reported the training in legalization of PFG and study trip on 30 November to 2 December 2005. The training in legalization of PFG entity, Ms.Supavadee Pattanakit, Head of Group Forming, Chumphon Cooperative Promotion, explained the steps toward legalization of fishermen's groups, the structure of cooperative, merits and demerits of cooperative. From the training, it was understood that the name of PFG should be registered as the farmers' group. The

name of group is Pakklong Farmers' Group. The location of group is 52/2 Mo.1 Pakklong Sub-district, Pathew District, Chumphon Province. The entrance fee is 100 Bath for new member. There are 34 members at first time to join the newly registered group and 7 committee members were selected. The value of share is 10 Bath/share, one member can not buy share more than 1/5 of total.

The study trip was made in Phangnga Province to the Bang Pat Fisheries Cooperative and the Central market at Klong-Kien Sub-district. The study trip was conducted with the member of 12 persons.

Recommendations and Discussions

- 1) The group has to change the name as s Aquaculture Farmers' Group.

Item 5 : Babylonia Experiment by Ms. Jirapa

Ms. Jirapa explained the experimental babylonia culturing since 25th August 2005. The experiment was cultured babylonia shell in 9 cages. The number of babylonia shells was 10,600 pcs., cage no. 1-8 had 1,200 pcs/cage and cage no. 9 had 1,000 pcs./cage. The aquaculture group is responsible for culturing babylonia shell that's to give feed, record feed/day and cleaning cage.

The result of babylonia experiment

- On 25th August 2005, number of babylonia shell had 2,083 pcs./kg. and average length had 1.39 cm.
- On 25th September 2005, number of babylonia shell had 885 pcs./kg. and average length had 1.77 cm.
- On 25th October 2005, number of babylonia shell had 518 pcs./kg. and average length had 2.03 cm.
- Now, the total babylonia shell have 8,350 pcs. and the survival rate is 78.77%.

The problem of babylonia experiment

- The cage was broken because of the strong wind by monsoon. So, SEAFDEC repaired cages.
- The monsoon season, the fisherman can not give feed for babylonia shell because the wave is strong.

Recommendations and Discussions

- 1) The shell culture can take place only during the out-of monsoon seasons between February to October.
- 2) Mr.Etoh stated the experiment on babylonia shell culturing needs to repeat as it was incomplete.

Item 6 : FED Installation

Recommendations and Discussions

- 1) Mr.Etoh asked PFG the necessity of expansion of the zoning demarcation. The PFG expressed that it may not be wise choice as it may be disturbing the anchovy fishermen group.
- 2) The PFG wants more FEDs to be installed in Thumtong area. But a part of this area is incorporated in the protected area by the Navy. Needs more deliberation.

Item 7 : Crab culture experiment by Mrs. Nopparat.

Mrs. Nopparat explained crab culture experiment. The experiment failed because the crab had survival rate was only 5%. The CMDEC want to repeat once more in the next year with separate cages by sex.

Recommendations and Discussions

- 1) The experiment will be repeated next year again.

Item 8 : The women's group activity by Ms.Jariya

Ms. Jariya explained the women's group activity. There are 3 groups in Pakklong existed. The Women's group No.1 produces mainly anchovy Products. The Women's group No.4 produces snacks and decorates the funeral and wedding and the women's group No.6 have Batik product.

Recommendations and Discussions

Mr. Etoh asked the women's groups if they want the groups to be under PFG? The women's group will discuss among them and seek decision.

Item 9 : Others

Recommendations and Discussions

- 1) The consensus on registration of the PFG should be reached first of all. To do that, the 4th PFG meeting should be held soonest.

Annex 6

Report on Local Seminar on the guideline for Coastal Fishery Resources Development

On 30th – 31st August 2005
At the conference room of CMDEC, Chunphon

Saivason Klinsukhon
12th September 2005

1. Background

Under the Integrated Coastal Resource Resources Management Program, SEAFDEC/TD and Department of Fisheries (DOF). Thailand collaborated in formulating and planning a collaborative coastal fisheries management project. One aim of the collaborative project is to promote and achieve the sustainable use of resources. The second aim is community participation. The duration of project is a five-year plan (2001-2006), this is the second phase, which focuses on human development, especially on fishers' groups in the project site.

The seminar was held for discussions on activities between fishers' groups and the project, and that the result of this seminar would be used to develop a plan for next year.

2. Objectives

- To advise the project activities to the community
- To evaluate and recommend ways of advancement in each activity
- To exchange experiences between fishermen, government staff and the project staff

3. Agenda and time table

30th August 2005

09.00-09.30	Registration
09.30-10.00	Opening <ul style="list-style-type: none">- Report by the Director of CMDEC- Opening by the Bureau of the Department of Fisheries
10.00-10.30	Coffee break
10.30-12.00	Progress of Base line survey <ul style="list-style-type: none">- Landing surveys- Environment surveys- Review the results of monitoring collapsible crab traps
12.00-13.30	Lunch
13.30-14.15	Progress of Extending and encouraging the LBCFM concept <ul style="list-style-type: none">- Re-organize fisher's group in Pakklong sub-district- The function of the Pakklong Fisherman Group- The structure and action of the enforcement unit
14.15-15.00	Progress of Encouraging local business <ul style="list-style-type: none">- Progress on the women's group

	<ul style="list-style-type: none"> - Encourage Babylonia shell culture - Experiments on swimming crab - Eco-tourism
15.00-15.30	Coffee Break
15.30-16.00	Progress on Developing extension methodologies
18.00-19.00	Dinner
31st August 2005	
09.00-10.00	Progress of Rehabilitating and enhancing coastal resources <ul style="list-style-type: none"> - Implementing FED - Releasing fish seed - Mangrove forestation - Scenery development
10.00-10.30	Coffee break
10.30-11.30	Summary, Conclusion and Recommendations
11.30-12.00	Closing
12.00	Lunch

4. List of participants

SEAFDEC/TD side

- Sei Etoh
- Sumitra Ruangsivakul
- Jirapa Kamhongsa
- Jariya Sornkliang
- Saivason Klinsukhon

Department of fisheries

- 1 Specialist of DOF
- 1 Director of CMDEC
- 10 staff officers from CMDEC
- 10 staff officers from DOF
- 2 staff officers from CFEU

Others

- 2 staff officers from MCR
- 2 staff officers from SAO
- 30 fishermen from Pakklong sub-district
- 15 from the women's group of Pakklong sub-district
- 1 teacher from Pakklong sub-district

5. Seminar content

5.1. Base line survey

5.1.1. The status of fisheries Resources in Pakklong Sub-District

In 2005, the catch ratio of total aquatic animals had decreased but the catch of target aquatic animals was like last year. So, the fisherman obtained income similar to last year. The catch ratio has decreased in crab traps.

Answer-Question of aquatic animal product activity

- 1) DOF released fish seed. Why is there a decrease in catch ratio?
 - There are several factors in a decreased catch ratio.

- 2) Are foreign fishing boats coming to the project area?
 - In 2004, foreign boats came into the project area but at the present this is not clear.
- 3) Is there an increase in numbers of boats and crab traps?
 - The boats have not increased but crab traps have increased by 4-5 to each boat.
- 4) Is there conflict between the crab gill net group and the crab trap group?
 - When the project started there was conflict but at present there is no problem.
- 5) Are there aquatic animals collected from the fish landing center?
 - Yes. The data is analyzed every month but at present there is little collaboration from the fishers.

Recommendation

- 1) DOF should ensure the release of aquatic animals.
- 2) The Community should collaborate to protect resources.
- 3) The Pakklong Fishermen's Group should control boats and resource enhancement.
- 4) The catch ratio is decreased because waste water is released into the sea
- 5) The catch ratio is increased or decreased depending on the numbers of boats.

5.1.2 Environment survey

The water quality in the project area has standard values for aquaculture. MCR found new species of sea grass which is *Halodule pinifornia*. The last year they found *Enhalus acoroides* and *Halodule univervis*. *H. pinifornia* and *H. univervis* have different leaves. In *H. pinifornia* the top leaves have several curves but in *H. univervis* of top leaves are like horns.

Answer-Question of environmental survey activity

- 1) From data, station 5 has low water quality and this station released fish seed. Is there a result of the survival ratio?
 - Water quality in station 5 has standard values for aquaculture.
- 2) Do you have water samples collected in the canal?
 - No.
- 3) Why are you collecting water sample only once every 2 months?
 - Previously, the analysis is every month but the value of water quality is not different. So, they now collect water samples once every 2 months.
- 4) What is the sea-grass index?
 - It point to water quality. If somewhere sea-grass is found that indicates good water quality.
- 5) How big is the area where sea-grass is found?
 - 15,000 square meters.

Recommendations

- 1) If water changes color a water sample should be collected for analysis.
- 2) There should be an increase in collecting samples in the canal.

5.1.3 Review the result of monitoring collapsible crab traps

The mesh size of crab traps is changed from 3.18 centimeters to 6.35 centimeters. After the mesh size was changed the results have shown an increase in swimming crab size.

Answer-Questions on the results of monitoring collapsible crab traps

- 1). Has the catch of fishermen using the changed mesh size been evaluated?
 - The fisherman are now content.

Recommendation

- 1) Fishermen should collect their own data, then send it to the staff for analysis.
- 2) Fishermen should have the fishery zone explained to them.

5.2. Extending and encouraging the LBCFM concept

5.2.1 Re-organize the fisher's group in Pakklong sub- district

The Pakklong Fisherman Group is divided into 7 groups, these are the crab trap group, crab gill net group, squid trap group, squid cast net group, mackerel gill net group, anchovy surrounding net group and the aquaculture group. On 29th August 2005, The PFG meeting accepted a women's group. So, in future the Pakklong Fisherman Group has 8 groups.

Recommendation

- 1) The fisherman should register their group because it is the law now.
- 2) The fisherman should keep accounts because it allows a reverse check.
- 3) The DOF is expecting the further evolution of the ICRM-PD project. The future, resources depend on the collaboration of the community.

5.2.2 The function of the Pakklong Fishermen's Group

The activities implemented in 2005

- 1) Fishery enforcement activity
- 2) Experiments on grouper by comparing fresh feed and artificial feed
- 3) Experiment on Babylonia shell in cage cultures
- 4) Releasing fish seed and mangrove reforestation
- 5) Scenery development
- 6) Implementing FEDs
- 7) Experiments on swimming crab in cage culture
- 8) To collect data of catching aquatic animals
- 9) Eco-tourism
- 10) Children training in the project area

5.2.3 The structure and action of the enforcement unit

The enforcement unit has a survey every month. Then, there is training for children and the community.

5.3. Encourage local business

5.3.1 Progress of the women's group

There are 3 women's groups in Pakklong, these are the women's group in village No.1, 4 and 6. The women's group No.1 produces processed anchovy. The women's group No.4 produces biscuits and making artificial flowers for cremations. But the women's group No.4 is making a rubber plantation. They are producing the product when they have free time. The women's group No.6 is making batik printing. They produce shirts, handbags and handkerchief. They have a very high income.

Recommendation

- 1) The Product of women's group No.1 should improve their raw material, quality and packing.
- 2) The women's group No.1 should improve their group structure.

5.3.2 Encourage Babylonia shell culture

On 24th August 2005, SEAFDEC released Babylonia shell in 9 cages. The Aquaculture group is implementing the experiment.

5.3.3 Experiments on swimming crab

From experiment is known that 2 month is a suitable culturing period. The swimming crab is grown and is of large size.

Recommendation

- 1) DOF should increase the frequency of random sampling.
- 2) The random sampling should consider the period of shell molt.

5.3.4 Eco-tourism

The Pakklong Fisherman Group set up an implementing committee. These are divided into activities that are home stay, car, boat and food undertaken by people in the village.

5.3.5 Crab bank project

In 2005, the crab bank has increased the swimming crab.

Recommendation

- 1) Fisherman should improve data collection.

5. 4. Enhance human resource capacity building and participation

- On 28th-31st March 2005, Eco- tourism training by PFG and a study tour in Surattani Province.
- On 8th-10th June 2005, Resources management training by PFG and a study tour in Surattani Province.
- On 17th-20th July 2005, Protection of resources training by student and teachers. With a study tour in Prachaubkirikan Province.
- On 18th-19th August 2005, Market training by PFG

Recommendation from the meeting

- 1) The advice is to set a study tour to Youlnoi Island.

5.5. The paper publishing

SEAFDEC and DOF have publishing 41 papers, brochures and posters.

5.6. Rehabilitation and enhancement of coastal resources

5. 6.1 Installation of FEDs

On 24th August 2005, SEAFDEC laid down 10 FEDs. SEAFDEC will collect data next month.

Answer and question of implementing FED activity

- 1) Do you need the permission the Harbor Department?
 - Not sure because the fishery province asked SEAFDEC to help lay down FEDs.
- 2) What is under the buoy? Why is it there?
 - It is net. Because it attracts aquatic animals.
- 3) How long do FEDs remain workable?
 - 3 years.

Recommendation

- 1) Fisherman should select new fishing gear because FED can increase resources and provide habitats for aquatic animals.

5.6.2 Releasing fish seed

- On 3rd of May 2005 released 600,000 banana shrimp, 24,000 sea bass and 3,700 swimming crab (Total 627,700).
- On 10th of August 2005 released 1,000,000 Tiger shrimp and 50,000 sea bass (Total 1,050,000).

Answer and question of releasing fish seed activity

- 1) Do you have follow up data on fish seed release?
 - DOF collect every month but at present cannot follow up the release of fish seed.
- 2) Do you check water quality in fish seed releasing area?
 - DOF checks every 2 months.

Recommendation

- 1) Fish seed should be released in mangrove areas.
- 2) DOF should add a station to collect water samples.
- 3) DOF should follow up fish seed by the cutting tail fin.

5. 6.3. Mangrove forestation

Each year 20,000 mangroves have grown. On 24th August 2005. The student, teacher and PFG had grown 800 mangroves.

5. 6.4. Scenery development

Since 2005, SEAFDEC can grow 3 types tree, which are Thongulrai, Hangnokyoug and Kemcheng.

Annex 7

**Report on
The 7th Implementing Committee Meeting (IC) of ICRM-PD**

On 30th August 2005

At CMDEC, Chumphon, Thailand

Saivason Klinsukhon
Sumitra Ruangsivakul
5th September 2005

1. Background

Under the Integrated Coastal Resource Resources Management Program, SEAFDEC/TD and Department of Fisheries (DOF), Thailand, collaborated in formulating and planning the collaborative coastal fisheries management project. An aim of the collaborative project is to promote and achieve sustainable use of coastal marine resources. The second aim is community's participation. The duration of project is five years (2001-2006) and this time is the second phase, and focus on human development, especially on fishers' group in project site.

The meeting held for discussion on activities in collaboration with the fishers' group and the project and the result will be developed in the next year's plan.

2. Objectives

- To impart the progress of activities to the community
- To evaluate and recommend of each activity
- To exchange the experience between fisherman, government's staffs and project's staffs

3. Agenda

09.00-09.30	Registration
09.30-10.00	Opening - Reporting of the 1 st IC meeting by director of CMDEC
10.00-11.30	Report the progress and problem of each activity from March to July 2005 1. Base line survey 2. Extend and encourage LBCFM concept 3. Encourage local business 4. Enhance human resource capacity building and participation 5. Rehabilitate and enhance coastal resources
11.30-11.45	Other issues
11.45-12.00	Summary, conclusion, recommendation and close meeting

4. List of participants

SEAFDEC/TD side

- Sei Etoh
- Mrs. Sumitra Ruangsivakul
- Ms. Jirapa Kamhongsa
- Ms. Jariya Sornkliang
- Ms. Saivason Klinsukhon

SEAFDEC/Secretariat

- Ms. Naramon Tamtim

Department of Fisheries

- Dr. Mala Supongpan
- Mr. Pajongjit Boonnun
- Mr. Thanadol Jankwan
- Ms. Varatip Somboonrit
- Mrs. Sukajit Dain
- Mrs. Nopparat Nasuchon
- Mrs. Jinda Petchkumnund
- Ms. Sonsani Srijanham
- Ms. Thitiphon Supaniran

Chumphon Marine and Coastal Resources Research center (MCR)

- Ms. Nattavadee Nokkate

Representative from the PFG

- Mr. Manot Prathedpiboon
- Mr. Payoau Srijan
- Mr. Anurak Reuangtummarong
- Mr. Surasak Jangpetch
- Ms. Prapa Desamut
- Mr. Srirot Kongtalae
- Mrs. Vassana Nuaim
- Ms. Audomvan Pomsavai

5. Meeting contents:

General Information

1. Dr. Mala Supongpan, Director of Marine Fisheries and Research Development Institute, explained the background of project that, started from 2001-2006. There are two committee, Steering Committee(SC) and Implement Committee (IC), SC will be held one time per year and IC will be held four time per year.
2. DOF re-organized charge of DOF by change director of Marine Fisheries and Research Development Institute, from Dr. Mala to Mr. Thaweeb, so the chairman of IC will be changed in next IC meeting.
3. Local seminar will be held on 30-31 August, this seminar will give cloth bags which were made by women's group no. 6 in project site.

Progress on activities in March –June 2005

There are 5 activities

5.1. Base line survey

5.1.1. Landing survey

There are aquatic resources surveyed every month around 5 days per month. There are 8 types of fishing gear surveyed are crab trap, squid cast net, shrimp trammel net, Mackerel gill net, squid trap, silver mullet gill net, crap gill net and anchovy cast net. The main fishing gears are crab trap, squid cast net, shrimp trammel net and mackerel gill net. The result of this survey will be present at local seminar.

5.1.2. Environmental survey

There are 4 times in year, to collected water samples in April, June, July and August. The samples analyze water qualities and category plankton. The water qualities are pH, depth, dissolve oxygen, turbidity, nitrite, nitrate, ammonia, phosphate, temperature, salinity and total suspended solids. Results of water qualities are standard for aquaculture. Plankton is not yet category, because MCR has busy. Report of category plankton has presented next year.

MCR find sea grass new species. It is *Halodule pinifornia*. The last year found *Enhalus acoroides* and *Halodule univervis*. *H. pinifornia* and *H. univervis* have different leafs. *H. pinifornia* of top leafs have several curve but *H. univervis* of top leafs like horn.

5.1.3. Monitoring on collapsible crab trap

After change mesh size of bottom of crab trap, the improvement by fishermen can be estimated on crab are big size than before changing.

5.2. Extend and encourage LBCFM concept

5.2.1. Re-organize fisher's group in Pakklong sub-district

Pakklong Fisherman Group(PFG) divided 7 groups, that's crab trap group, crab gill net group, squid trap group, squid cast net/Anchovy cast net group, mackerel gill net group, Thamtong group(village no. 3) and aquaculture group. On 29th August 2005, PFG meeting had accepted women's group. So, the futures Pakklong Fisherman Group have 8 groups.

5.2.2. Review on validity of present zoning arrangement

- The zoning fishery had 3 kilometers from shore. It likes the last IC meeting.
- Mr. Tanadol, Officer from Fisheries Provincial give more information on zoning that, the line of demarcted zone may be changed to straight line, will be convenient for fishermen .

5.2.3. Prepare work on local enforcement unit

- The staff of CFEU informed that, his unit (Chumphon) have set enforcement team, composed 30 fishermen volunteer and 4 DOF's staff. This team will be rotated to survey 10 days per month, the area is Prachuap Kirikan,, Chumphon and Surattani.
- Fishermen would like to establish an enforcement unit brance in Pakklong Sub-district like Bangsapan project. Next year, Ao.Bo.To approved the budget on enforcement unit, so the brance will be set in the next year.
- Mr. Payao, member of PFG committee informed to the enforcement unit that, now the problem from trawl was a few in project site, but anchovy purse seine have problem for small scale fisheries. Please consider on this problem, Mr. Tanadol, Officer from Fisheries Provincial gave

- more information on this gear that, anchovy purse seine in daytime will be consider on mesh size, anchovy purse seine in night time is illegal.
- Enforcement unit said that, anchovy purse seine is small-scale fisheries, but enforcement unit will focus on commercial fisheries, this problem may use social rule to decision.
- The chairman advise training fisherman about fishery laws and education of fishery laws.

5.2.4 Crab bank by Prof. Fushimi visiting

SEAFDEC invited Prof. Fushimi from Japan to visit the project site on coastal aquaculture. He had to educated crab bank. The report on Fushimi's observation will be presented later.

5.3. Encourage local business

5.3.1 Progress on women's group

Products of women's group in No. 4 and 6 have success, but products of women's group No.1 have a problem. The women's group No.1 can not produce standard products. For the production, this group used a raw material not good and anchovy is not fresh.

From the meeting, the organization accepted to help women's group No.1 by support machine and introduce production.

5.3.2. Expand market

- The products produced by women's group do not reach to the standard, so SEAFDEC not expand market but it gives budget of expand market help production of women's group No.1.
- Fisheries Technology Development Department (FTDD) informed on marketing channel that, now DOF and Provincial will support to the marketing, by invited women's group to sell products at festival and fair in every month.

5.3.3 Experiment on swimming crab in cage culture

- Started experiment on 25th of May 2005. There are 1,200 crab released in cage size 10 x 10 meter. Size of crab released is 45 pieces/kg.
- Results
 - 1 month crab size increase to 23 pieces/kg
 - 2 month crab size increase to 13 pieces/kg
 - 3 month crab size increase to 12 pieces/.kg
- From result 2 month is suitable for culture because crap high grow up. After 2 month do not break even for culture.

5.3.4. Experiment on fish cage culture by artificial feed

There is not experiment because CMDEC can not provide fish seed.

5.3.5. Experiment on Babylonia shell culture

On 24th August 2005, SEAFDEC had released Babylonia shell in 9 cages. Aquaculture group is implement experiment.

5.3.6. Echo-tourism planning

There are meeting 3 times in May and June. From meeting there are set up implementing committee. Head of sub-district is advisor. Pilot village is village No. 6 (Baan Bon Rai). Already established committee of this village and set accommodation fee.

5.4. Enhance human resource capacity building and participation

- On 28th-31st March 2005, Echo- tourism training by CMDEC and study tour in Surattani Province.
- On 8th-10th June 2005, Resources management training by CMDEC and study tour in Surattani Province.
- On 17th-20th July 2005, Protection resource training by CMDEC. They were study tour in Prachaubkirikan Province.
- On 18th-19th August 2005, Market training by CMDEC.

5.5. Rehabilitate and enhance coastal resource

5.5.1 Implement FED

On 24th August 2005, SEAFDEC laid down FED 10 set. SEAFDEC will collect data next month.

5.5.2. Releasing fish seed

- On 3rd of May 2005 released banana shrimp 600,000 pieces, sea bass 24,000 pieces and swimming crab 3,700 pieces (Total 627,700).
- On 10th of August 2005 released Tiger shrimp 1,000,000 pieces, sea bass 50,000 (Total 1,050,000).

5.5.3. Scenery development

Since 2005, SEAFDEC can grow 2 types tree that's *Delonix regia* and *Tecoma stans*.

On 10th August 2005 to grow *Delonix regia* and *Tecoma stans* 500 pcs.

5.5.4 Mangrove reforestation

The each year has grown 20,000 mangroves. On 24th August 2005, The student, teacher and PFG had grow 800 mangroves. Other mangroves, they will grow on special days.

Others

1. Aquaculture zoning

- There are questions from PFG meeting that, may be divided area of green mussel to 20 members for culture or not. This activity will be concern with sea food bank of Fisheries Provincial, DOF.
- Officer from Provincial informed on sea food bank that, the plan of this year was training, in Pathew have 37 members to training already. And the plan of sea food bank will be divided the area to each member. On 1-4 September 2005, representative of fisheries provincial will go to Pathew district and give information on the area to fish farmers.
- More information on sea food bank is that old farmers in each area will be old member of sea food bank, and new farmer will be listed the name in this activity.

2. The information of Enforcement Unit

- When this team go to work and visit fisheries community, he will give the law fisheries to community.
- Some problem on this team, they would like to know that, when they go to work in site, where is responsibility on this duty.

3. The fishermen want to divide green-mussel zone because member in group is increasing.

Annex 8

Report on The 8th Implementing Committee Meeting ICRM-PD

Venue: The meeting room of Ao.Bo.To.
Date: 22nd December 2005

Prepared by Jariya Sornkaing
29th December 2005

1. List of Participant

01.Mr.Taweep Boonvanich	Chairman
02.Mr.Vannakiet Thupthimsang	MCR, Director of Research and Development Environment, Phuket
03.Mr.Peera Oasomboon	Director of CMDEC
04.Ms.Noparat Nasuchol	CMDEC
05.Ms.Thitiporn Supaniran	CMDEC
06.Mr.Tanadol Chantakhuan	Provincial Fishery Office, DOF
007.Mr.Suthino Limsurat	Costal Aquaculture Station, Chumphon
08.Ms.Phajongjit Boonnhun	District Fishery Office
09.Ms.Vaewta Ardhan	Provincial Administration Office (Ao.Bo. Cho)
10.Ms.Ammara	- do -
11.Mr.Preecha Prodtong	Head, District Office, Pathew
12.Mr.Narathip Pianjring	Royal Project
13.Mr.Somporn Dachpakdee	Chumphon Fishery Enforcement Unit
14.Ms.Varathip Somboonrit	Fisheries Technological Development Division, DOF
15.Ms.Summana Khachornvattakul	MCR, Chumphon
16.Mr.Suchart Yadum	Head of Sub-District Office, Pakklong
17.Mr.Kamol Sak Ratsamepong	Director of Pakklong school
18.Mr.Vichian Tithada	PFG
19.Mr.Varah Katumpai	PFG
20.Mr.Payoa Srijang	PFG
21.Mr.Asthakorn Tannuang	Ao.Bo.To. Office
22.Mr.Nipon Danglas	Ao.Bo.To. Office
23.Mr.Sumaung Malirum	Head of village No. 6
24.Mr.Sei Etoh	SEAFDEC/TD
25.Ms.Sumitra Ruangsivakul	SEAFDEC/TD
26.Ms.Jirapa Komhongsa	SEAFDEC/TD
27.Ms.Napach Pongjit	SEAFDEC/TD
28.Mr.Saivasan Klinsukol	SEAFDEC/TD
29.Ms.Jariya Sornkliang	SEAFDEC/TD

2. Content of Discussion

Agenda I : Information from the chairman

- The chairman, Mr.Taweep, introduced himself first as this was the first occasion of chairing the IC meeting which was taken over from Dr. Mala.

- The chairman expressed his special thanks to the Director of MCR, Mr.Vannakiet Thupthimsang, for his participating in the meeting.
- The major objectives of this IC meeting lie in reporting project progress in the last trimester in 2005 and action plan for the next trimester of 2006.
- Mr. Vannakiet Thupthimsang gave information about other projects in Chumphon.

Agenda II : Endorsement of the 7th IC meeting minutes

- The minutes of the 7th IC meeting was endorsed, only the list of participants appeared in the minutes needs to be corrected.

Agenda III : Reporting the project progress during the last trimester

1. Monitoring survey :

- MCR reported that the result of regular marine environmental survey had been reported in the last Seminar on Direction of Coastal Resources Management and Development under the ICRM-PD project which was held from 1-2 September 2005. The first draft of this report is under process for publication.
- In principle, the local villagers and others concerned can get all information of the project through the Seminar that will be organized every year.
- Mr.Preecha Prodtong (Head of Pathew District) said sorry about his first participation in the 8th IC meeting. He appreciated in disseminating information to the local villagers. He also commented that the current ICRM-PD project should work in line with Thailand Development Plan such as promotion of tourism. He also informed the meeting that there is one interested species of bivalve namely: *Phalium bandatum* Perry (Banded bonnet) found in Bomao village.

Crab Bank

- Mr.Vannakiet said that the original objective of Crab Bank project is to encourage fishermen on crab conservation.
- Mr.Peera also informed that fishing effort at present situation is suitable and very good for crab conservation.

2. Pakklong Fisher's Group (PFG)

- Mr.Preecha Prodtong, Head of Pathew District and Ao.Bo.To support the Pakklong Fisher's Group (PFG) by giving loan (Gay Typhoon Fund) for group business, however the group have to submit the business proposal for approval.

3. Zoning arrangement

- Fishermen satisfied boundary 3,000 meter from the shore.

4. Enforcement unit

- Mr.Somporn, officer of the Chumphon Fishery Enforcement Unit informed the meeting about the training on fishery offence has been conducted for fishermen in 2005. In next year 2006, They plan to organize another Training Course on Coastal Protection Group in May. The training will be conducted into two times for fishermen.
- Mr.Varah, head of the Pakklong Fisher's Group requested the patrol boat from Enforcement unit to work in the Pakklong area. However, Mr. Taweeep suggested that the Fisher's Group should protect the area by themselves.

5. Encourage local business

- Mr.Preecha Prodtong suggested the ICRM-PD project leader to consider/promote on culture of *Phalium bandatum Perry*.
- With regard to the support of local business, SEAFDEC will provide some materials to improve product packaging to the Women group,
- Ms.Varathip, officer of Fisheries Technological Development Division (FTDD) informed the meeting that FTDD organized the Training course on Hygiene for Anchovy Products for Woman group No.1 last month
- Mr.Preecha Prodtong gave his own opinion that now there are many organizations separately working in the area, there are lack of coordination between organizations. With this regard, he plans to invite all organizations concerned to meet and discuss for good coordination in future. He also implied that from now if any organization come to work in the Pakklong area should at least inform to the District.

6. Resources enhancement

- With regards to this issues it was reported that SEAFDEC has installed 10 sets of FED in August 2005, but now the FED are remaining only 6 sets without detecting any real cause.
- Fishermen proposed to Ao.Bo.To on the need of 60 sets of FED to cover their boundary of 3,000 meter. However, the request is not yet agreed due to maintenance cost may occur again in future.

Agenda IV :Work plan of 2006

- CMDEC will conduct the training course on resources conservation for student in July 2006.
- CMDEC will do the experiment on sea bass culture in March of 2006. There are twelve cages in the experiment with separate 2 types of feed: fresh feed and dry feed for each 6 cages.
- CMDEC will continue the experiment on swimming blue crab culture in 2006 using another method which will different from the experiment in 2005..
- CMDEC plan to release the fingering fishes in the coastal area in February 2006.
- Village No. 6 is selected as a pilot village for Home stay project, in this connection, there is a plan or study tour from Chanthaburi province to visit Paklong project and will have home stay at Village No.6.
- MCR will start collect environment data in February.
- 2006 is the final year of the project. Therefore SEAFDEC will employ a out-source consultant to carry out the project terminal evaluation.

Others

- Mr.Taweep implied that every activities in the project should be clear for evaluation
- Mr.Narathip informed the meeting that this project was supported by the Royal Project around 1,134,479 Bath in 2005

Closing by Chairman(Mr.Taweep)

- Mr.Taweep want to know all budgets of each activity that support to this project.
- Then he thanked all participants and closed the meeting.

Annex 9: Account sheets for Women's Group activity

Table 1: Account sheet for Women's Group No.4 in 2005: Snack processing

Month 2005	Gross income (Baht)	Expenses (Baht)				Income W/O labour cost (Baht)	Share divided	
		Raw material	Transport	Others	Sub-total		Member	Amount (Baht)
January	1,120	600	75	0	675	445	8	56
February	1,208	600	75	40	715	493	8	62
March	0	0	0	0	0	0	0	0
April	1,200	740	50	40	830	370	8	46
May	0	0	0	0	0	0	0	0
June	2,400	1,480	0	40	1,520	880	4	220
July	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0
September	1,060	610	0	40	650	410	0	0
October	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0
Total:	6,988	4,030	200	160	4,390	2,598	28	384
Average:	1164.7	671.7	33.3	26.7	731.7	433.0	4.7	63.9

Table 2: Account sheet for Women's Group No.4 in 2005: Snac processing

Month 2005	Gross income (Baht)	Expenses (Baht)				Income W/O labour cost (Baht)	Share divided	
		Raw material	Transport	Others	Sub-total		Member	Amount (Baht)
January	4,700	1,200	0	0	1,200	3,500	-	-
February	3,000	1,305	0	0	1,305	1,695	-	-
March	3,000	1,000	0	0	1,000	2,000	-	-
April	700	200	0	0	200	500	-	-
May	3,000	1,000	0	0	1,000	2,000	-	-
June	7,500	2,000	0	0	2,000	5,500	-	-
July	0	0			0	0	-	-
August	0	0			0	0	-	-
September	0	0			0	0	-	-
October	0	0			0	0	-	-
November	0	0			0	0	-	-
Total:	21,900	6,705	0	0	6,705	15,195	-	-
Average:	3650.0	1117.5	0.0	0.0	1117.5	2532.5	-	-

Table 3: Account sheet for Women's Group No. 6 in 2005

Month 2005	Gross income (Baht)	Expenses (Baht)				Income W/O labour cost (Baht)	Share divided	
		Raw material	Transport	Others	Sub-total		Member	Amount (Baht)
January	65,250	36,600	150	30	36,780	28,470	6	4,745
February	37,800	20,060	100	30	20,190	17,610	7	2,516
March	19,939	9,760	100	30	9,890	10,049	7	1,436
April	24,180	12,420	50	30	12,500	11,680	6	1,947
May	21,200	12,870	50	30	12,950	8,250	7	1,179
June	18,126	12,071	50	30	12,151	5,975	5	1,195
July	13,950	7,767	0	0	7,767	6,183		
August	39,000	31,370	0	0	31,370	7,630		
September	56,250	37,500	0	0	37,500	18,750		
October	17,550	11,700	0	0	11,700	5,850		
November	30,150	20,100	0	0	20,100	10,050		
December								
Total:	343,395	212,218	500	180	212,898	130,497	38	13,017
Average:	57,232.5	35,369.7	83.3	30.0	35,483.0	21,749.5	6.3	2,169.4

Note: The shares obtained during July to December are not available.