



Stakeholder Consultation Meeting in Trat province Results on the fish larvae distribution in Trat for management

“REBYC-II CTI; GCP /RAS/269/GFF”

14 December 2015

Baan Poo Spa and Resort

Report by

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Background to REBYC-II CTI Project

The Food and Agriculture Organization of the United Nations (FAO) and the Department of Fisheries, Thailand has signed a Letter of Agreement (LOA) for the execution of the GEF supported project “Strategies for trawl fisheries bycatch management” (REBYC-II CTI; GCP/RAS/269/GFF). Thailand by the Department of Fisheries. The Marine Fisheries Research and Development Bureau are implementing the project in two areas of the Gulf of Thailand. Prachuab Kiri Khan and Chumphon is the first site and the focus of the work is on the enlargement of codend mesh sizes for trawlers. The Central Gulf Marine Fisheries Research and Development Center (CMDEC), located in Chumphon is taking the lead research role for these experiments. The second site is in Trat province, where management measures for closed areas and closed seasons are being established to protect fish larvae and spawners. The Eastern Marine Fisheries Research and Development (EMDEC), located in Rayong province, is leading this work

Understanding the spatial and temporal distribution of commercial fish larvae is important when determining trawl fishing grounds and seasons. In this connection, the Marine Fisheries Research and Development Division under the DOF organized a stakeholder consultation to present the results of the fish larvae identification and distribution study in Ao Trat in order to raise awareness of these issues with fishers and fishing gear owners. At the same time DOF gathered stakeholder ideas, problems and assessed their willingness to cooperate in the proposed Area and Season Closures of Ao Trat aimed at more sustainable fisheries.

Specific Objectives of the REBYC-II CTI Project in Thailand under the 2nd LOA.

- To present results from the fish larvae identification and distribution survey;
- Discuss implications of the study on the Area/Seasonal Closures planned for Ao Trat; and
- Agree on the area and season to be closed and what types of fishing gear prohibited.

Summary of the consultation

The 115 participants represented fishers, fisheries societies, fisher groups, the private sector experts, government agencies and observers.

Mr. Piyachoke Sinanan, senior researcher of Eastern Marine Fisheries Research and Development Center, opened the meeting and handed over to the Director of Eastern Marine Fisheries Research and Development Center (Mr. Wuttichai Wunkahard). The Director presided over the meeting and welcomed the participants, and urged them to participate for future events aimed at formulating the closed area and closed season management schemes.

Mr. Piyachoke presented a background of REBYC-II CTI project and summarized the fisheries situation in Trat province as follows:

REBYC-II CTI project's work in Trat begun in 2013 by holding a consultation meeting to consult with fishers and stakeholder to identify some areas in Trat province for fisheries management. The agreed pilot site was situated 8 miles from the shoreline. It was found that very little data on fish larvae and their distribution in the Trat area were available and it was considered important to do this research in order to inform on the protection of spawners and their recruits. The project studied fish larvae by making plankton surveys to identify fish larvae and their distribution. The project also studied the social economic condition of small-scale fishers in the area. Commercial fishers were also involved in the study.

The framework for a fisheries management plan for Trat had been proposed at the earlier consultation meetings. Results from the stakeholder study suggested that some fishers would agree with such a plan whilst others would not. For those who did agree, many were small-scale fishers who would like to have other livelihood activities in conjunction with their current fishing practices, e.g. the establishment for crab banks, mangrove planting, and natural conservation tourism. During the earlier meetings, many of the fishers did not completely agree with the proposed management scheme but might be willing if they could have new activities during the times that the fishery or certain areas were closed.

In recent years, the fisheries resources in Ao Trat have showed a downward trend, and management measures are urgently needed to protect these resources. At this meeting, there was a new opportunity to consult with the fishers again on future management and to look for with new ideas, especially for the species such as swimming crab, *Rastrelliger* mackerel, and shrimp. Requests were made to the participants to consider and comment on a management scheme for each species, in addition to the broader spatial and and seasonal closure.

As most of the participants had not been involved in the earlier meetings, an overview was given of the proposed management scheme for Ao Trat sustainable fisheries management. In order to win the confidence of the stakeholders attending the meeting, an example was given of the successful fisher involvement in the management of the short-necked clam fishery around Chang Island in 2010. In 1971 short-necked clam production was around 4,000 MT/year but decreased sharply afterwards. During 1975-1976, small catch occurred and then decreased again in 1977. Fishers believed that the clam will recover for every 5 year and will die naturally. They believed that it should be caught rather than left to die. After the DOF notification to not allow clam fishing in the Trat area in 2000, a year later the clam was more abundant, most likely supported also by the DOF's seed restocking program.

The clam catch increased further in 2002 resulting from the good cooperation between the DOF and local fishers, under agreed management measures. Clams were available until 2014 when the catch declined again. This is a good example of fisher knowledge, informing fisheries management decision-making, supported by a restocking program. Managed in this way, the clam fishery can support

sustainable fisher livelihoods. There are clear lessons to be learned from this example of co-management that apply to other sub-sectors, including trawl fisheries.

Mr. Surapong Intraprasert, President for Thai Nation Volunteer Protection at Trat, who had a purse seiner for anchovy, proposed the meeting to consider four issues during the afternoon session. These were:

- The area for closure (8 miles) from the shoreline;
- Limitations on types of fishing gear;
- The timing for the close season; and
- The size of fishing boats to be restricted.

Dr. Apichart Termwicharkorn, National Expert, presented results on his fish larvae identification and distribution study. Data collection for fish larvae was made in March, May, July, September, November 2014 and in January 2015- a total of six times in Ao Trat. Each time sampling was conducted at nine stations. Six stations were located in the coastal area from Ao Trat to Klong Yai; one station was East of Koh Chang, one station on the western side of Koh Chang; and one station, east of Koh Kuit. A total of 35 genera, 31 family, and 7 order was found. In March the fish larvae were abundant (see Tables below).

Table1. Abundant fish larvae in March

Family	Genus/species	Family	Genus/species
Engraulidae	<i>Stolephorus</i> spp.	Lobotidae	<i>Lobotess</i> spp.
Clupeidae	<i>Sardinella</i> spp.	Lobotidae	<i>Lobotessurinamen</i> <i>sis</i>
Bregmacerotidae	<i>Bregmaceros</i> spp.	Nemipteridae	<i>Nemipterus</i> spp.
Atherinidae	<i>Atherina</i> spp.	Sciaenidae	<i>Sciaena</i> spp.
Scorpaenidae	<i>Scorpaenodes</i> spp.	Drepaneidae	<i>Drepane</i> spp.
Synanceiidae	<i>Minous</i> spp.	Pomacentridae	<i>Amphiprion</i> spp.
Platycephalidae	<i>Platycephalus</i> spp.	Terapontidae	<i>Terapon</i> spp.
Latidae	<i>Lates</i> spp.	Priacanthidae	<i>Priacanthus</i> spp.
Apogonidae	<i>Apogon</i> spp.	Blenniidae	<i>Omobranchus</i> spp.
	<i>Cheilodipterus</i> spp.	Siganidae	<i>Siganus</i> spp.
		Serranidae	<i>Serranus</i> spp.
Sillaginidae	<i>Sillago</i> spp.	Callionymidae	<i>Callionymus</i> spp.
Carangidae	<i>Gnathanodon</i> speciosus <i>Scomberoides</i> spp. / <i>Caranx</i> spp. <i>Selar</i> spp. / <i>Trachinotus</i> spp.	Gobiidae	
Leiognathidae	<i>Leiognathus</i> spp.	Sphyraenidae	<i>Sphyraena</i> spp.
Gerreidae	<i>Gerres</i> spp.	Bothidae	<i>Bothus</i> spp.
Mullidae	<i>Upeneus</i> spp.	Cynoglossidae	<i>Cynoglossus</i> spp.
		Monacanthidae	<i>Aluterus</i> spp.
		Tetraodontidae	<i>Tetraodon</i> spp.

Table 2. Abundant species - Family Gobiidae, Clupeidae and Nemipteridae

	Family	Average ₃	Percent
1	Gobiidae	37	23.60
2	Clupeidae	20	12.75
3	Nemipteridae	18	11.49
4	Carangidae	21	10.68
5	Apogonidae	18	10.61
6	Blenniidae	16	9.74
7	Callionymidae	9	5.28
8	Leiognathidae	7	4.17
9	Sphyraenidae	3	1.40
10	Cynoglossidae	3	1.36

Mr. Bancha Sookkaew, Provincial Fisheries Official of Chantaburi province, presented the participatory fisheries management concept as stipulated in the new Fisheries Act of 2015. The Act includes the participation of fishers in fisheries management especially with regards to area and season closures. He then clarified the process and step for implementing fisheries management as follows:

- Gathering of data;
- Public hearing with fishers, private sector;
- Proposed management plan prepared for the Provincial Fisheries Committee;
- Proposed management plan presented to the DOF passing through a Conservation Committee or a Research Committee to consider more suitable measures;
- Proposal to the Minister of Agriculture and Co-operatives to sign a Notification;
- Publication in the Royal Gazette, to become effective;
- Awareness campaign to make people know about the new fisheries management measures, through seminars, radio and brochures.

Group discussions were then organised. The participants were divided into three groups (based on target species; Shrimp, Swimming crab and *Rastrelliger*) and asked to consider seasons, capture sizes and fishing areas. Each group elected a leader for the discussion.

Group 1. Shrimp:

The major fishing ground in Ao Trat lies between Lam Grad and Klong Yai, the Eastern part of Koh Gradard to north east of Koh Kuit, and western Koh Chang. The fishing gears used were push nets, otter board trawls, shrimp trawls and shrimp gillnets. Shrimp was caught in April to July. Most shrimp caught were *Metapenaeus* species and small *Penaeus*, ranging in size from 50-80 pieces per kg. From August to October, bigger *Metapenaeus* were caught. During November to March, bigger shrimp (30 individuals per kg) were caught in fewer numbers. The group agreed that during January to March there should be a spawning season and proposed to limit pair trawlers and shrimp trawls to fishing outside the 12 nm limit from the shoreline. The enforcement of illegal push nets should be maintained to preserve and conserve shrimp.

Group 2:Swimming crab:

The fishing grounds at Ao Trat lie between Amphoe Klong Yai and Chang Channel from the south to north of Koh Chang. The fishing gears used were crab gill nets and crab traps. Crabs were abundant in October to December but catches were less in March to June. Between October to December, females bearing eggs were more abundant. The Group proposed the following:

- No retention of females bearing eggs,
- No retention of small sized crab,
- Establishment of crab bank with the slogan, 'Don't catch one hundred, wait to catch one million'.

Group 3: *Rastrelliger*:

The Fishing grounds were from the passway of Koh Chang and Koh Kuit to the western part of Koh Chang and Koh Kiut. The fishing gear used was the mackerel gill net, purse seine and pair trawls. Mackerel were caught abundantly from October to April. The spawning seasons were from February to March and October to November. November to December and March to May were periods of recruitment of juveniles. The Group agreed to the proposal to stop fishing during the period March to April each year.

Conclusions

Mr. Wuthichai, the Director of Eastern Marine Fisheries Research and Development Center concluded that fisher and private sector stakeholders agree to have a management plan to conserve juvenile fish, including swimming crab and *Rastrelliger* spawners in Ao Trat. He thanked the participants for their contributions and closed the meeting.

Agenda

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09.00 -09.30 hr	Opening ofthe meeting by the Director of Eastern Marine Fisheries Research and Development Centre
09.30 - 09.50 hr	Background of the project REBYC-II CTI (Mr. Piyachok Sinanan)
09.50 - 10.10 hr	Management knowledge using area and season closure with participatory approaches as stipulated in the Fisheries Acts 2015. (Mr. BanchaSookkiew, Provincial Fisheries Official of Chantaburiprovince)
10.10 - 10.25 hr	Refreshment
10.25 – 10.45 hr	Results on fish larvae study using for area decision for area closure
10.45 – 12.15 hr	Group discussion
12.15 – 13.15 h	Lunch
13.15 – 14.45 hr	Group discussion
14.45 – 15.00 hr	Refreshment
15.00 – 16.15 hr	Presentation from each group
16.15 – 16.00 hr	Meeting closed by the Director of Eastern Marine Fisheries Research and Development Center