

Report
1st Stakeholder Consultation Meeting
“The By-catch Management for Trawl Fisheries
in Prachaub and Chumphon Provinces”

7 November 2013, Gangpeka Resort, Tasae, Chumphon
“GCP/RAS/269/GFF”

Summary

The first local stakeholder consultation meeting in Chumphon province was held on 7 November 2013 at Hotel Kangpeka Resort, total participants 128 (invited participants 108 and 20 observers) attended the meeting.

The objectives of the meeting were to make known about the REBYC II project of Thailand to local fishers and authority, to cooperate together among fishers, stakeholder, DOF officials and RFU in planning for making operation for sea trials in mesh size enlargement activities for trawlers and to recruit voluntary fishers to accompany and demonstrate of the sea trial experiments.

The meeting was started smoothly with presentations on the results of DOF experiments which have been taken before, catches of food fish* and trash-fish* were shown in percentage of escapement* and comparison of value of the catches. Various mesh sizes cod end and cover nets were used in experiments of DOF. Anyhow for REBYCII project, the experiment on the enlargement of cod end mesh will try to using fisher's boats, both otter board and pair trawlers, in this time we expect to have more strong research works and more social and economic data. The meeting was also presented the species and sizes of fish get caught. Planning for next experiments has been shown. After discussion in details, finally they were agreed with DOF plan and will send volunteer fishers to cooperate in the experiments through DOF requesting official invitation to the Fisheries Society of Thailand. The meeting was successfully meet the objectives and then closed.

Detail of the Meeting Report

The 1st Stakeholder Consultation Meeting entitle “The By-catch Management for Trawl Fisheries in Prachaub and Chumphon Provinces” was held at the Hotel Kangpeka Resort in Tasae, Chumphon province, on 7 November 2013. One day meeting, the participants attended the meeting comprising 50 fishers from Chumphon province (included stakeholders), 30 fishers from Prachuab Kiri Khan province (included stakeholders), 20 government officials

(DOF, DMCR, local Ao Bo Tor), 2 invited speakers, 6 organizers and about 20 observers (fishers), totally 128 persons.

The objectives of the meeting were:

1. To make fishers, stakeholders, local officials to know about the REBYCTII project “GCP/RAS/269/GFF” in detail.
2. Plan and operation set together with fishers to take experiment, enlarge cod-end mesh size for trawlers.
3. Voluntary select fishers to accompany and demonstrate of the sea trial experiments.

The presentation, discussion of the meeting was summarized as following:

Mr. Suchart Sangchan (Director of Central Gulf Marine Fisheries Development Center = CMDEC) reported the chairman of the meeting (Mr. Pirochana Saikliang).

Mr. Pirochana Saikliang: Marine Fisheries Expert (representative for the Director of Marine Fisheries Research and Development Bureau) presided the meeting and gave an introduction to the meeting. The meeting intended to make the participants to know about the first year Thailand project implementation under the REBYCTII project. In Prachub Kiri Khan and Chumphon provinces, the Department of Fisheries (DOF) by CMDEC will take experiments as sea trials using fisher’s trawl boats (otter board trawl and pair trawl) in cooperation with fishers. The experiments will take place in Prachub Kiri Khan and Chumphon provinces in cooperation with fishers. The meeting shall plan and design the method of the experiments together to have the best results. Voluntary fishers to accommodate with the experiments were grateful. These will make acceptance from other fishers in the near future that, one of the management of by-catch from trawl fisheries, enlarge the cod-end mesh size will make the fisheries more sustainable and not to destroy the environment.

Text of the presentation and discussion.

Detail of the project REBYC II and implementation of the project was presented. DOF policy for enlarge mesh size cod-end and some experiments of DOF which had been done before were also presented to the meeting. Plan and method of experiment and time period to start experiment were discussed.



Mr. Suchart Sangchan report
the chairman of the meeting.



Mr. Pairochana presided the meeting.

1. Mr. Suchart Sangchan (Director of Central Gulf Marine Fisheries Research and Development Center (CMDEC) and the National Coordinator) presented the background of the project “Strategies for trawl fisheries bycatch management” (REBYC-II CTI; GCP /RAS/269/GFF) which was signed as Letter Of Agreement between FAO and DOF and how to implement the project coincided with the fishers and stakeholders. The project members are Indonesia, Papua New Guinea, Philippines, Thailand and Vietnam. The Southeast Asian Fisheries Development Center is a core center for implementation. The project time frame is four years. He also summarized the 4 components of the project which are

1. *The Policy, legal and institutional frameworks component*
2. *The Resource management and fishing operations component*
3. *The information management and communication component*
4. *The Awareness and knowledge component*

The first year of the project will be implemented all of four components, the project sites are two areas in

- 1) Area covered Prachuab Kiri Khan and Chumphon Provinces, targetting to enlarge codend mesh sizes for otter board trawlers and pair trawlers. The local responsible office is CMDEC located in Chumphon.
- 2) Area covered Trad Province, targetting to propose one area for closed area and closed season to protect fish larvae and spawners. The local responsible office unit is EMDEC located in Rayong.

Overall responsible is the Marine Fisheries Research and Development Bureau, located in Bangkok.

2. Mr. Amnauy Kongprom (Head, Marine Fisheries Station, Satul province) presented Thai fisheries status from 1992, the percentage of good fish* and trash fish* was 70:30. Within 30 % of trash fish, it comprised juvenile (small sized)

economic fish about 30-50 %. When considering the type of fishing it was apparent that about 50% of the total catches were caught by trawlers. It was found that:

Otter board trawler (small size, length overall less than 14 m)

- Catch composition comprised percentage of good fish and trash fish: 74: 26.
- Within trash fish composition 26 %, it could be identified as true trash fish and juvenile economic fish in percentage, 43:57.
- Fishing boat which has its catches 14.13 kg/hr would have economic loss about 50.89 Baht/hr.

Otter board trawler (medium size, length overall 14-18 m)

- Catch composition comprised percentage of good fish and trash fish: 46: 54.
- Within trash fish composition 54 %, it could be identified as true trash fish and juvenile economic fish in percentage, 29:71.
- Fishing boat which has its catches 41.87 kg/hr would have economic loss about 76.36 Baht/hr.

Pair trawler (normal)

- Catch composition comprised percentage of good fish and trash fish: 48: 52.
- Within trash fish composition 52 %, it could be identified as true trash fish and juvenile economic fish in percentage, 73:27.
- Fishing boat which has its catches 132.06 kg/hr would have economic loss about 333.09 Baht/hr.

Pair trawler (express)

- Catch composition comprised percentage of good fish and trash fish: 56: 44.
- Within trash fish composition 52 %, it could be identified as true trash fish and juvenile economic fish in percentage, 53:47.
- Fishing boat which has its catches 294.89 kg/hr would have economic loss about 809.93 Baht/hr.

Results from DOF experiments about cod-end mesh size enlargement could be concluded that:

1). Comparison between using cod-end meshes, 2.5 cm, 4 cm and 6 cm in percentage of fish escapement

Mesh size (cm)	Catches			
	Good fish (kg)	Trash fish (kg)	Escape (kg)	% Escape
2.5	77.2	18.7	0	0
4.0	52.6	15.0	27.4	28.9
6.0	38.1	18.9	39.1	42.5

2). Species escapement when using cod-end mesh 4.0 cm

Group of species	Escapement (%)
<i>Nemipterus</i>	12.7
<i>Priacanthus</i>	13.4
<i>Saurida</i>	53.0
Squid	20.9

3. Mesh size cod-end used in foreign countries:

In foreign countries, there are limitation of mesh size used for trawlers, examples as follow:

- Brunei 4.0 cm
- Mediterranean Sea and Black Sea 4.0 cm
- Indonesia 5.0 cm
- Oman 5.5 cm
- Bangladesh 6.0
- Myanmar 6.25 cm (4.0 cm for fishing right cooperation)
- Malaysia 3.8 cm

4. Results from fisher's boats cooperation.

DOF had cooperated with 2 otter board trawlers in 2 trips experiments, Petpairin 8 (experiment in Pranburi, Prachuab Kiri Khan) and Chokpaisarn (in Rayong province) , during 12 – 24 and 27 – 31 July 2013, altogether 12 hauls.

Table 1. Catch composition from MS 4, 2 cm and % escape.

Catches (kg) 4 cm		Catches (kg) 2 cm		% Escape*
Good fish	Trash fish	Good fish	Trash fish	
87.7	8.7	23.6	12.3	27.1

Table 2. Catch composition (kg) from OBT MS 4 and 6 cm.

Group of species	MS 4	MS 2
Squid	42.0	7.7
<i>Saurida</i>	8.2	3.6
Goat fish	3.4	8.5
<i>Silago</i>	1.2	1.9
<i>Nemipterus</i>	1.3	0.9
Shell	12.2	0.15
Miscellaneous small sized shrimp other	0.8 30.2	8.6 68.7

Table 3. Cost of catches from MS 4 and MS 2 cm (1 day - trip).

Value (Baht) MS 4	Value (Baht) MS 2	Escape (% total value)
4,190	342	7.6

Table 4. Average length (cm) of good fish from MS 4 and MS 6 cm trawls.

Group of Species	MS 4	MS2
<i>Silago</i>	13.1	7.0
<i>Nemipterus</i>	15.7	7.3
<i>Saurida</i>	23.1	11.7
Goat fish	12.1	8.8
Squid	10.2	5.0
Shell	6.6	5.6

5. Mr. Kampol Loichuan (Head, Marine Fisheries Station, Ranong province) explained DOF drafted plan to the meeting about the experiment to enlarge mesh size, how to operate the fishing boat, how to cut the net, how to take fishers to cooperate in the experiment and how to have witness by using underwater VDO record the escape fish and how to gather data on board. The experiment will be two times using 2 set of fishing boats from fisher's cooperation.

The first set will has two otter board trawlers which one will be installed 2 sizes of cod-end e.g. 4.0 with cover net 2.5 cm and another one will has only one size cod-end net with mesh size 2.5 cm, normally used by fisher. The MS 2.5 cm

fishing boat is trawling as a standard fishing to compare with the boat MS 4 with cover net 2.5 cm. The operations will take together two boats in parallel for 4 days, two times a day. The results will be compared between these two boats.

The second set will have two pair trawlers which one pair will be installed 2 sizes of cod-end e.g. 4.0 with cover net 2.5 cm and another pair will have only one size cod-end net with mesh size 2.5 cm, normally used by fisher. The MS 2.5 cm pair trawl fishing boat is trawling as a standard fishing to compare with the boat MS 4 and 2.5 cm. The operations will take together two pair boats in parallel for 2 days, two times a day. The results will be compared between these two pair boats.

Mr. Kampol also showed how to collect data on board which included fishery biology, social economic data and etc. The data will be analyzed and compared for loss and gain. Results will be presented to the next stakeholder consultation meeting for further formulation management schemes to manage by-catch caught by trawl fisheries.

After discussed for unclear issues, the speakers and chairperson have explained clearly to them. Then the meeting was agreed with the DOF plan.

Fishers who will accompany DOF to take experiments, the Fisheries Society of Paknam Chumphon will provide for otter board trawl fishers. Pair trawl fishers from Samut Sakorn, Samuth Prakarn and Samut Songkram who come to fish around Prachuab Kiri Khan and Chumphon provinces will volunteer to take experiments by official requesting to the Trawl Fisheries Society. SEAFDEC will provide technical technique at CMDEC around December 2013. It is expected to start experiment in January 2014.

6. The meeting was concluded and closed by Mr. Pirochana Saiklieng.

***Remarks:**

1. Good fish means all kinds of fresh and edible fish caught by trawlers oftenly large and medium size of fish
2. Trashfish means small size fish and rotten fish (small size fish include small size of economic fish=edible fish, and true trash fish which are small sizes).
3. Escapement means fish escape from mesh size codend and remain in the cover net.

For example when using MS 4.0 with cover net 2.5 cm; fish caught by 4.0 = 15 kg and remain in MS 2.5 cm = 5 kg then the percent escapement = $(5/(15+5))*100 = 25\%$

From Table 1

The experiment was used MS 4 cm as codend mesh and used 2 cm as cover net. Catches from 4 cm were (87.7+8.7 = 96.4 kg) and remain in the covernet (23.6+12.3 = 35.9 kg). Total catches = 96.4 + 35.9 = 132.3 Then the percentage of escapement = $(35.9/132.3)*100 = 27.1 \%$.



Discussion during the meeting.