



## **The Meeting on Marine Fisheries Management and Fisheries Acts 2015 related to Trawl fisheries and By-catch Management REBYC-II CTI; GCP/RAS/269/GFF)**

Asia Airport Hotel, Patum Thani province  
20 August 2015

*Report by Dr. Mala Supongpan*

### **1. Background to the Meeting**

The Food and Agriculture Organization of the United Nations (“FAO”) and the Department of Fisheries, Thailand have signed the Letter of Agreement (LOA) for the execution of the GEF supported project “Strategies for trawl fisheries by-catch management” (REBYC-II CTI; GCP/RAS/269/GFF) which is funded by the Global Environment Facility (GEF). The Food and Agriculture Organization, Southeast Asian Fisheries Development Center are implementing the project. Which works with the five participating countries (Indonesia, Papua New Guinea, Philippines, Thailand and Vietnam).

Under the project work plan for Thailand, the Department of Fisheries, Marine Fisheries Research and Development Bureau is implementing the project at two sites; Prachuab Kiri Khan and Chumphon. The Central Gulf Marine Fisheries Research and Development Center (CMDEC), located in Chumphon is taking the lead in research into trawl fisheries and enlarged cod-end mesh size experiments. The second site in Trad province, is being used to pilot management measures for closed areas and closed seasons, to protect fish larvae and spawners. The Eastern Marine Fisheries Research and Development (EMDEC), located in Rayong province is taking the lead for this research work. Research at both project sites involves the participation of stakeholder and the DOF actively seeks cooperation between officials and stakeholders, in data sharing, analysis & presenting results for improved understanding between fishers and officials.

Thailand’s new ‘Marine Fisheries Management and Fisheries Act 2015’ was brought into force in on 27<sup>th</sup> June 2015. This was the first significant change in Thailand’s fishery laws since 1947. The new fishery law is essential knowledge for those researchers, enforcement persons, fishers, and the private sector.

### **2. Objectives of the Meeting**

The meeting focused on trawl fisheries and by-catch management and was an opportunity to develop recommendations, orientate policies and for on-going management for trawl fisheries and by-catch management n Thailand.

The meeting objectives were as following:

- Present and discuss International agreements and regulations relating to marine fisheries;
- Present and discuss current Thai marine fisheries trends and international requirements;

- Discuss the New Fisheries Act relating to trawl fisheries and By-catch Management, including mesh size regulations, closed areas and closed seasons.

### 3. Summary of Meeting:

The Marine Fisheries Research and Development Division was the responsible unit for the meeting. The Number of Participants at the meeting was 58 (Fishers 19, WWF 3), researchers 25 (researchers 23; Thai Navy- So Po Mo Po 1),

The meeting centered on presentations from 4 key fisheries specialists;

**3.1. Mr. Somsak Chullasorn**, DOF consultant, presented the current situation of commercial fisheries, including purse seines to catch pelagic fish, trawlers to catch demersal fish, squid cast nets with light to catch squid and anchovy, and purse seines to catch anchovy.

For purse seines, the target species were Indian mackerel and Indo-Pacific mackerel, and the minor target was *Sardinella*. Trawlers targeted demersal fish groups with the percentage of captured fish divided into two groups; good fish (for consumption) and trash fish (for fish meal) which was usually a ration of around 70:30. The 30 % trash fish composition comprised of juvenile economic fish, about 30-50 %. About 50% of the captured fish from Thailand's marine waters were caught by otter board and pair trawlers.

The international requirements for exporting fish products from Thailand are facing problems through the lack of actions to address IUU Fishing and comply with other international agreements. Fishers, fish processors and government concerned agencies have to be made more aware to these and fishing practices conducted in sustainable ways and in accordance with the international norms.

**3.2. Mr. Suchart Sangchan**, Director of Andaman Sea Fisheries Research and Development Center gave ideas on how to establish seasonal and area closures; the present status of small-scale fisheries in the Andaman Sea and Phang-nga Bay; how groups are established to protect coastal resources. The new Fisheries Act (2015) defines the area for small-scale fisheries as: small boats of less than 5 GT fishing within 12 nm from shoreline. Large-scale fishing uses larger boats, (5-15 GT) and fishing areas 15 nm from the shoreline.

Typical small-scale fishing gear types are: Gill nets for fish, crab and shrimp and fish traps. Angling is classified as hook fishing for fish by hand; trolling is also a form of angling and is done to catch fish, as are long lines. Efforts have been made to involve small-scale fishers in fisheries management for more than 20 years and stakeholders have participated in more than 20 DOF projects.

**3.3. Dr. Mala Supongpan**, the National Technical Official of the Thailand project REBYC-II CTI project pointed out that marine fishes are for every one and are concerned with food security and food safety. Marine fishes are also concerned with economic development, social employment, ecosystem and recreation. The new Marine Fisheries Management measures are intended to manage fisheries in more sustainable ways to serve all needs and secure future food supplies. Fisheries management issues are also concerned with managing people who fish; natural conservation and well-being of the ecosystem, rationalization of fisheries; social community and employment. The usable stock concept involves recruitment and growth of stocks and natural mortality and fishing mortality. Increase and decrease factors should be used to control fishing mortality in an exploited fish stock. The management principle is to fish at the Maximum Sustainable Yield (MSY) with the optimal effort (F-optimum) so that fisheries would not be harmed in future.

Dr Mala explained about MSY and optimal fishing mortality (F at MSY). Production Models or Surplus Models use catch and effort time series data (Schaefer and Fox;). Analytical models, use several biological parameters for a single species (fish, catch and effort, ecological and social parameters) as special inputs for each model (e.g. Gulland, Cadima, Thompson and Bell Model) Dr Mala also explained the Yield per Recruit Model, Biomass, Social Economic Yield Model, Ecopath with Ecosim and Ecosystem based fisheries management..

The mesh size measure in the new Government Gazette requires that trawlers use a minimum of 5.0 cm mesh size in the cod-end. Dr. Mala explained how to estimate optimal mesh size; how to measure the size of cod-end meshes. Past studies conducted to investigate trawl cod-end mesh sizes have compared trash fish and juvenile economic fish catches have been done using 2.5cm cod-end mesh and 5.0 cm. For 2.5 cm mesh, trash fish and juveniles of the size 3-18 cm. When using 5.0 cm mesh size, trash fish and juvenile fish were caught at the size of 7-18 cm

The new Law issuance of the Government Gazette, on 6 August 2015, became effective on the day of issuance. Other highlights from the law include the banning of set nets and purse seines with mesh size less than 2.5 cm, Octopus traps, Trawlers with a cod end mesh size of less than 5.0 cm, and other illegal gears. Violent offenders will be imprisoned for up to 5 years or fined 100,000 -500,000 Baht or both imprisoned and fined.

The Meeting report of the So Po Mo Po (appointed by the National Council for Peace and Order, "To solve the Illegal, Unrecorded and Unregulated fishing issues") on 7 August 2015 reported that:

- Trawl mesh size (5.0 cm) will become effective on 4 November 2015;
- No fishing for trawler and push netter who do not have licenses and who have licenses but are illegal fishing;
- Legal push netters (320 in number) now have to quit fishing or change to fishing for Sergestid shrimp (for making shrimp paste) or otter board trawlers;
- Reduce the number of fishing days for otter board trawler in the Gulf of Thailand and Andaman Sea to 5 days per month;
- Reduce the number of fishing day for purse seines in the Gulf of Thailand to 8 days per month and in the Andaman Sea to 5 days per month.

The Meeting report of the So Po Mo Po on 13 August 2015 reported that:

- No more set net fisheries will be allowed, starting on 13 August 2015;
- Fishing boats (32,000) that are not registered will be deleted from the center database. At present 39,000 are registered;
- The Head Rope used by pair trawler must not exceed 90 m in length

The Meeting report of the So Po Mo Po on 19 August 2015 reported that:

- The coastal area extends to 6 nm from the shoreline, (around island is 1.6 nm except large islands e.g. Kuit, Chang, Sichang, Pha-ngan and Samui);
- A limit of fishing days for Purse seine (except anchovy) will be introduced; no fishing on the dates 1-3, 11-13, (total 5 days in every month (September to November 2015)), after implementing for a while the impact of this measure will be assessed;
- Establish the National Plan of Action for IUU Fishing;
- Fishing from piers should have a fish landing document;
- A traceability system will be introduced for fish processors,
- Abuse of foreign labor in the fishery will be eliminated,

- License document changes may be permitted, e.g. increases in boat capacity;
- Harsher penalties for foreigners caught fishing illegally in Thai territorial water,
- Enforcement persons can include recruiting ex-soldiers as volunteer and government support for salaries up to 15,000 baht per month.

**3.4. Mrs. Sampan Parncharaj**, Researcher at Andaman Sea Fisheries Research and Development Center presented the international, regional and country laws and arrangements as following:

**The 1982 United Nations Convention on the Law of the Sea (UNCLOS/LOSC),**

- Became effective in 1994, 166 members, 320 sections and 9 appendix, coastal countries have rights to access for living and non-living resources in the Exclusive Economic Zones: EEZs 12 nm), Thailand announced her rights on 15 May 2011,
- **The 1982 LOSC** includes guidelines on:
  - Licensing system for fishing,
  - Specify species to be fished,
  - Limiting catch quota or Total Allowable Catch (TAC),
  - Specify season and area to be fished,
  - Specify type and boat size to fish,
  - Specify size and age of fish to be caught,
  - Allowing observers on board,
  - No trans-shipment in the sea, and in the other country,
  - Joint ventures between country and country or else,
  - MSY as an indicator to monitor and manage the fisheries,
  - Research and Development,
  - Co-operation between or among countries can be made.

**Chapter 17 of Agenda 21 of 1992 UNCED** (The 1992 United Nations Conference on Environment and Development), Rio de Janeiro **Convention (Earth Summit)**

The Earth Summit involved 40 chapters, dealing with Rehabilitation of the earth effected by Global development. Management of High Seas fisheries and fishing in EEZ zones are stipulated in Chapter 17.

**High Sea Fisheries:**

- A Flag state country has to minimize incident catch;
- A Flag state country has to monitor, investigate, for high sea fisheries under the conservation and management scheme of high sea fisheries resources;
- No exchange of flag states between countries is permitted;
- No explosive or poisonous materials or other destructive fishing is permitted in the high seas area,
- Steps should be taken to reduce waste products and losses through poor handling.

**Coastal Fisheries**

- To increase the potential yield and fish stocks so they are adequate for people,
- To recognize local knowledge, local fisheries, local people, local management and development,
- To rehabilitate natural fish resources for sustainability by respecting the environment, economic factors including the relationship among species in the ecosystem,

- Promote selective fishing gear to reduce the by-catch species and capture of non-target species,
- Preserve and rehabilitate endangered aquatic species,
- Conserve fragile and sensitive coastal ecosystem for living resources.

#### **The 1993 FAO Compliance Agreement.**

FAO certified this agreement in 1993 and it became effective in 24 April 2003, So far 35 country members have ratified the Agreement. There are 16 articles- the important issues are as following:

- Countries who fish the High Seas have to control their flag states to follow the agreements strictly;
- Flag state countries have to certify not to break the fisheries management laws and measures;
- No licenses should be given to any flag state country which is not allow to fish the High Seas,
- No fishing for any flag state country in the High Seas will be permitted, except for those flag state countries who control the said fishing boat.

#### **The 1995 the United Nations Convention Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks, (UNSFSA).**

- Country Agreement for on Straddling Fish Stocks and Highly Migratory Fish Stocks. Eighty two countries have signed this agreement on 4 December 1995 and the agreement became effective on 11 December 2001. There are 50 article and 2 annexes.
- The agreement covers the following:
  - The Precautionary approach;
  - Use of the ecosystem management for target species and related species in the same ecosystem;
  - Reduce non target species through using more selected fishing gear and techniques which are not destructive to the environment,
  - Protect the biodiversity of the sea environment,
  - Strengthen regional, sub regional cooperation;
  - Place emphasize on subsistence and small scale fishermen;
  - Data collection and completed fishing activity data should be shared among others e.g. position of the fishing boat, catch of target species and non-target Species;
  - Effectively MCS for enforcement purposes.
- In May 2006, the conference on UNSFA in New York covered the following issues:
  - Conservation and management for “Straddling Fish Stocks and Highly Migratory Fish Stocks”;
  - International cooperative mechanisms for member and non member countries;
  - Monitoring, control, implement and using measure along the agreement
  - Assistances to developing countries and non-member countries will be taken into account for the agreement and use of the agreement measures,
  - Cooperative mechanisms and plans for RFMOs to apply for member countries,
  - The UNSFA has set the target for sustainable fisheries by the year 2012.

**CCRF: The 1995 Code of Conduct for Responsible Fisheries** was ratified on 31 October 1995, 170 member countries re now committed to responsible fisheries, (both capture and culture)

that will not damage ecosystems. For public health, fisheries should be practiced so that anyone can have access to the safe, quality fishery products.

The main texts for the CCRF are:

- Fisheries management with regards to ecosystem, biodiversity and environment;
- Fishing activities;
- Aquaculture development;
- Integrated Fisheries management in coastal areas;
- Yields;
- Responsible fish utilization
- Law and regulations concerning fish trade

#### **6) FAO IPOAs (IPOA=International Plan of Action)**

- IPOA-SEABIRDS
- IPOA-SHARKS
- IPOA-CAPACITY
- IPOA-IUU

#### **Regional level**

- RFMOs: Indian Ocean Tuna Commission (IOTC)/WCPFC/ICCAT/CCSBT/
- RFOs: BOBLME, APFIC, COBSEA, SEAFDEC.

#### **National level**

- The Thai National EEZ announcement;
- The Thai Fisheries Act 2015,
- Other concerns and daughter laws
- NPOA (National Plan of Action)
  - NPOA-SEABIRDS
  - NPOA-SHARKS
  - NPOA-CAPACITY
  - NPOA-IUU

## **Annex 1: Meeting Agenda**

### **New Fisheries Acts related to Trawl fisheries and By-catch Management**

Asia Airport Hotel, Bangkok, Thailand

20 August 2015

(REBYC-II CTI; GCP /RAS/269/GFF)

0800-0900 hr	Registration
0900-0915 hr	Opening remark Mr. Manoch Roongratri, Director of Marine Fisheries Research and Development Division.
0915-1100 hr.	Marine Fisheries in the past, present and trend in future Mr. Somsak Chullasorn, Consultant Marine Fisheries, DOF
1100 – 1230 hr	Small Scale Fisheries; Area and Season Closure Management Mr. Suchart Sangchan, Director, Andaman Sea Fisheries Research and Development Center
1330-1500 hr.	Marine Fisheries Management and Community-based Fisheries Management. How to interpret MSY for fisheries management Dr. Mala Supongpan, NTO of the project.
1500-1615 hr	International, regional and national issues and arrangements. MS. Sampan Parnjarat, researcher of And Sea Fish Res and Dev Cent
1615 1630 hr	Conclusion and close of the meeting Mr. Suchart Sangchan, Director, Andaman Sea Fisheries Research an Development Center).

## **Annex 2: Figures**