



**Establishment and Operation of a Regional System of  
Fisheries *Refugia* in the South China Sea and Gulf of Thailand**

**REPORT**

**THE FIFTH MEETING  
OF THAILAND NATIONAL FISHERIES REFUGIA COMMITTEE**

**BANGKOK, THAILAND  
20 JUNE 2019**

Prepared by  
**DEPARTMENT OF FISHERIES  
THAILAND**

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**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER  
TRAINING DEPARTMENT**



**Southeast Asian Fisheries  
Development Center**



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Environment**



**Global Environment  
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## REPORT OF THE MEETING

1. The fifth meeting of Thailand National Fisheries Refugia Committee for the Project entitled “Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand” was conducted by the Department of Fisheries on 20<sup>th</sup> June 2019, 09.30 – 12.00 hours, at Department of Fisheries, Bangkok. Mr. Thaworn Jirasoponrak, Deputy Director-General of the Department of Fisheries, acted for the Director-General as the chairman in his absence. Meeting agenda and list of participants are shown in Annex 1 and 2, respectively. The meeting minutes are as follows:

### AGENDA 1 REPORT OF THE CHAIRMAN

2. None.

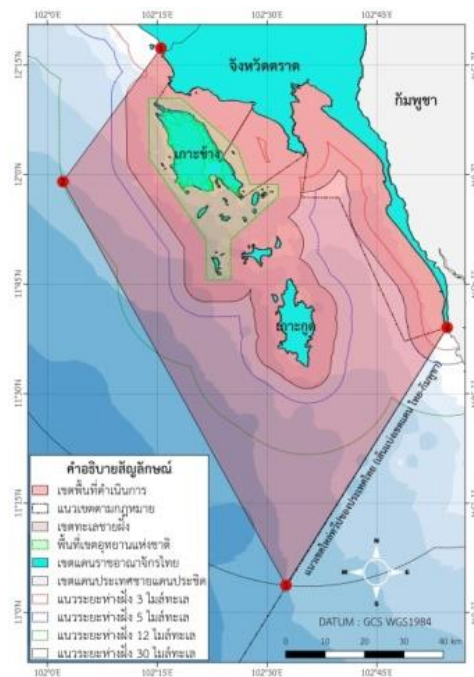
### AGENDA 2 APPROVAL OF REPORT OF THE PREVIOUS MEETING

3. **Ms. Prulai Nootmorn**, Senior Expert in Marine Fisheries, Department of Fisheries, as the committee and secretary, informed the meeting that report of the fourth meeting of Thailand National Fisheries Refugia Committee on 29<sup>th</sup> March 2019 had been handed out to each committee for consideration in advance. In this regard, she requested the meeting to consider, amend, and approve the report. **Meeting Resolution:** The meeting approved report of the fourth meeting of Thailand National Fisheries Refugia Committee on 29<sup>th</sup> March 2019.

### AGENDA 3 MATTERS OF REPORT

#### 3.1 Results of the First Meeting of Site-Based Fisheries Refugia Management Board in Trat Province on 4<sup>th</sup> April 2019 at Trat City Hotel, Trat Province

5. **Ms. Prulai Nootmorn** informed the meeting about the first meeting of site-based Fisheries Refugia management board in Trat Province that it was aimed to introduce to the board the members and their TORs as it was the first meeting. The board was then provided with baseline data: the overviews of the project background; status of coastal resources, ecosystem, and marine environment in the coastal area of Trat Province; status of fishery resources and fisheries in Trat Province; roles of communities on coastal resource management in Trat Province; and the context of Indo-Pacific mackerel in the Gulf of Thailand. Subsequently, priority species and study site were proposed for consideration.
6. **Ms. Prulai** concluded that Indo-Pacific mackerel and the main fishing area in Trat Province, shown in the picture bellowed, were approved by the board to be priority species and study area for Fisheries Refugia in Trat Province. For the next meeting, the board requested obvious illustrations of the distribution of Indo-Pacific mackerel, coastal resources/ecosystems, existing costal conservation areas, and boarding line of costal seas in Trat Province, for consideration of Fisheries Refugia management in the area.
7. According to the meeting resolution of site-based Fisheries Refugia management board meeting in Trat Province, **Mr. Kumpon Loychuen**, Director of the Eastern Gulf Fisheries Research and Development Center (Rayong), Department of Fisheries, presented to the meeting the maps showing the meeting’s requirements, i.e., the areas of seagrass, coral reef, artificial reef, marine parks, coastal seas, and the fishing grounds of small-scale and commercial fisheries in Trat Province.



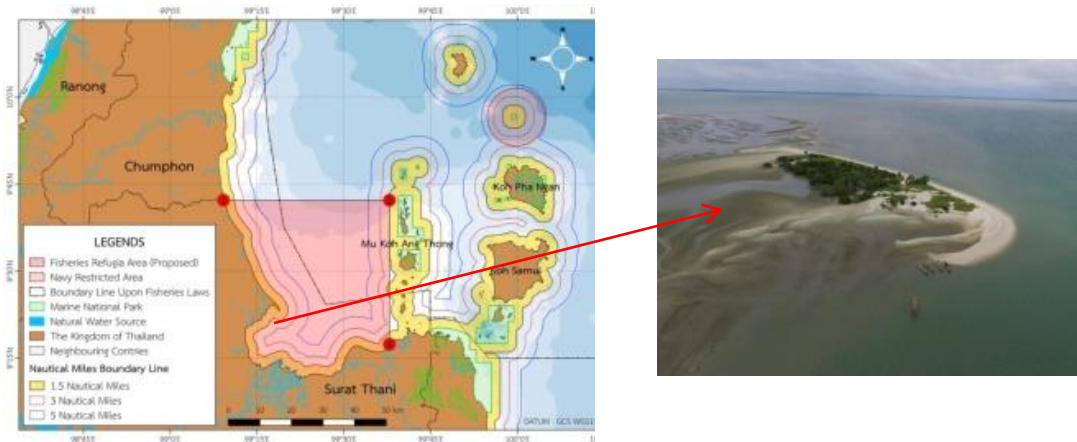
8. **Mr. Thaworn Jirasoponrak**, Acting Chairman, asked about importance of the study area.
9. **Mr. Kumpon Loychuen** responded that it had been the main fishing ground of the gears having most effect on Indo-Pacific mackerel. He also added the information that, from the investigation in 2017-2018, mature fish were found abundant during January-April.
10. **Assoc.Prof. Shettapong Maksumpun**, Dean of the Faculty of Fisheries, Kasetsart University, noted that researchers from the Faculty of Fisheries, Kasetsart University had been studying on Indo-Pacific mackerel in cooperated with the Department of Fisheries for 3-4 years, however, they had not yet discussed about Fisheries Refugia.
11. **Ms. Rachada Kaonoona**, Senior Fisheries Technical Officer, Coastal Aquaculture Research and Development Division, Department of Fisheries, recommended that there should be an integration between data from Kasetsart University and the Department of Fisheries to fulfill the life-cycle information of Indo-Pacific mackerel in Thai waters.
12. **Mr. Thaworn Jirasoponrak** noted that technical information should be provided concisely and extensively prior to issue any fishery measures.
13. **Meeting Resolution:** The meeting acknowledged.

### 3.2 Results of the First Meeting of Site-Based Fisheries Refugia Management Board in Surat Thani Province on 26<sup>th</sup> March 2019 at Wang Tai Hotel, Surat Thani Province

14. **Ms. Prulai Nootmorn** informed the meeting about the first meeting of site-based Fisheries Refugia management board in Surat Thani Province that it was aimed to introduce to the board the members and their TORs as it was the first meeting. The board was then provided with baseline data: the overviews of the project background; status of ecosystem and fisheries in Surat Thani Province; knowledge of blue swimming crab and ecosystem related to the integrated management of blue swimming crab resources in Ban Don Bay of Surat Thani province; and

blue swimming crab management in Thai waters. Subsequently, priority species and study site were proposed for consideration.

15. **Ms. Praulai** concluded that blue swimming crab and the fishing area of Surat Thani Province, from shoreline straight rightward closing to the protected area of Mu Koh Ang Thong National Marine Park shown in the picture bellowed, were approved by the board to be priority species and study area for Fisheries Refugia in Surat Thani Province. In this regard, the meeting pointed out that the area around Koh Sed was suitable for Fisheries Project site due to the its richness of coastal ecosystems suitable for habitat and nursery ground of blue swimming crab in the area. The board agreed that technical information on the status of fisheries and coastal environment around Koh Sed had to be provided and illustrated by mapping, as for consideration of Fisheries Refugia management in the next meeting.



16. **Assoc. Prof. Shettapong Maksumpun** gave information to the meeting that Ban Don Bay was rather shallow due to the effect of seasonal monsoons. He pointed out that salinity was the key factor for the growth in each life cycle of blue swimming crab. He expressed his support to the Fisheries Refugia of blue swimming crab, while recommended concerning about the life cycle of this target species.
17. There followed a discussion regarding the activities of bank crab. It was noted that crab seed should be released into the area that buried female were found as it was the naturally suitable places. Trawling in Surat Thani Province was also involved in crab bank by doing the activities on the boats.
18. **Meeting Resolution:** The meeting acknowledged.

### 3.3 Results of the 2<sup>th</sup> Meeting of the Regional Scientific and Technical Committee on 21<sup>st</sup> – 23<sup>rd</sup> May 2019 at Kampot, Cambodia

19. **Mr. Kumpon Loychuen** concluded the contents of the 2<sup>th</sup> Meeting of the Regional Scientific and Technical Committee on 21<sup>st</sup> – 23<sup>rd</sup> May 2019 at Kampot, Cambodia as follows:
- a) Progress of the project activities in each member country during June 2017 – May 2018
    - Cambodia: there were 3 Fisheries Refugia sites, Kep Province for blue swimming crab, Kampot Province for grouper, and Koh Kong Province for Indo-Pacific mackerel, in all of which the consultation meetings were done. Fisheries Refugia for blue swimming crab

in Kep was officially notified by Ministry of Agriculture, Forestry and Fisheries; and boundary of Fisheries Refugia for Indo-Pacific mackerel in Koh Kong had been already approved by the Provincial Authority. Studies on biology and fisheries of Indo-Pacific mackerel in Koh Kong had been done in cooperated with SEAFDEC/PCU; it would be used for technical support to Fisheries Refugia in the area.

- Malaysia: two Fisheries Refugia sites were defined, Tanjung Lemon, Johor for spiny lobsters, and Miri, Sarawak for tiger prawn. Regarding lobster refugia, the activities was done on collection of landing data, resource survey and documentary filming, phyllosoma study, socio-economic survey, and stakeholder consultation. For tiger prawn refugia, studies on CPUE and catch composition were conducted.
  - Philippines: there were 3 Fisheries Refugia sites, Bolinao, Pangasinan for rabbitfish, Masinloc, Zambales for juveniles of frigate tuna, and colon, Palawan for fusilier fish. Fisheries data collection, ichthyoplankton survey, and stakeholder consultation had been done in the 3 sites.
  - Thailand: there were 2 Fisheries Refugia sites, Trat Province for Indo-Pacific mackerel and Surat Thani Province for blue swimming crab. The meetings of all levels had been conducted: National Fisheries Refugia Committee, National Scientific and Technical Committee, and Site-Based Fisheries Refugia Management Boards. There were several consultation meetings among project team and relevant researchers/ officers. Investigation on the life cycle of Indo-Pacific mackerel in the Gulf of Thailand and study on MSY and PCU of the 2 priority species were done and regarded as co-financing.
  - Indonesia: there were 2-3 tentative priority Fisheries Refugia sites proposed, Bangka Belitung, and Tambelan Bintan for small pelagic fishes, and Benkayang for penaeid shrimp, however, project implementation had not yet started. National project document and work plan would be amended prior to signing the Letter of Agreement (LOA), expected in June 2019.
  - Vietnam: there were also 2-3 tentative priority sites of Fisheries Refugia; the details of target selecting species would be consulted with national focal point and relevant officers after country's appointment. It was reported that Letter of Intent (LOI) was signed in May 2019.
- b) Management of trans-boundary species: Indo-Pacific mackerel and frigate tuna
- There were presentations on the results from the SEAFDEC/SWEDEN Project on Indo-Pacific mackerel, biological study of Indo-Pacific mackerel in Trat Province of Thailand and in Koh Kong of Cambodia, and the study of frigate tuna off Western Luzon in Philippines
  - The meeting agreed for co-studies of those two trans-boundary species among the member countries in the region of the South China Sea.
- c) The contents were also included best practice fishing gears and methods, GIS mapping and existing ocean modeling, baseline survey data, project websites, Fisheries Refugia centers, Fisheries Refugia database, awareness building on Fisheries Refugia concept, and financial report.

20. **Ms. Parinthon Veerapattananon**, Representative from Project Coordinating Unit (PCU), informed the meeting that LOA between Indonesia and SEAFDEC was already signed on 13<sup>th</sup> June 2019. She also added the information that PCU had cooperated with Chulalongkorn University of Thailand for

support of larval and DNA identification of Indo-Pacific mackerel in Koh Kong of Cambodia. It was found from the study that mature Indo-Pacific mackerel in Koh Kong were abundant during January-March.

21. **Meeting Resolution:** The meeting acknowledged.

#### **AGENDA 4 MATTERS FOR CONSIDERATION**

##### **4.1 Approval of Quarterly Progress Report, Expenditure Report, Costed Work Plan and Cash Advance Request**

22. **Ms. Praulai Nootmorn** presented to the meeting the progress report and expenditure report for the 2<sup>th</sup> quarter, April-June 2019, and costed work plan and cash advanced request for the 3<sup>st</sup> quarter, July-September 2019, concluded as follows:

- Progress Report (April-June 2019)

There were 3 meetings for project implementation as follows:

- The first meeting of site-based Fisheries Refugia management board in Trat Province, Trat, Thailand, 4<sup>th</sup> April 2019
- The first meeting of site-based Fisheries Refugia management board in Surat Thani Province, Surat Thani, Thailand, 26<sup>th</sup> April 2019
- The fifth meeting of Thailand national Fisheries Refugia committee, Bangkok, Thailand, 20<sup>th</sup> June 2019

- Expenditure Report (April-June 2019)

- Project budget allocation for the three-month period 23,930 US\$
- Expenditure incurred for the three-month period 13,432 US\$
- Unspent balance of budget for three-month period 10,498 US\$

- Costed Work Plan (July-September 2019)

- Project personnel and consultants 8,000 US\$
- Sub-contracts with non-profit supporting organization for conduct fisheries and socio-economic assessment 6,268 US\$
- Meetings of committees, boards, and others 3,000 US\$
- Total costs 17,268 US\$

- Cash Advance Request (July-September 2019)

- Estimated disbursements for period ending 30<sup>th</sup> September 2019 17,268 US\$
- Less : closing cash balance as at 30<sup>th</sup> June 2019 10,498 US\$
- Total cash requirements for the period ending 30<sup>th</sup> September 2019 6,770 US\$

23. **Mr. Thaworn Jirasoponrak** asked whether there was any process of financial monitoring.

24. **Ms. Praulai Nootmorn** responded that, according to the project management framework, a financial audit would be done annually by authorized audit company.

25. **Meeting Resolution:** the meeting approved those progress report, expenditure report, costed work plan, and cash advanced request.

**AGENDA 5 ANY OTHER BUSINESS :** None.

#### **ANNEX 1**

#### **AGENDA**

**AGENDA 1           REPORT OF THE CHAIRMAN**

**AGENDA 2           APPROVAL OF REPORT OF THE PREVIOUS MEETING**

**AGENDA 3           MATTERS OF REPORT**

- 3.1 Results of the First Meeting of Site-Based Fisheries Refugia Management Board in Trat Province on 4<sup>th</sup> April 2019 at Trat City Hotel, Trat Province
- 3.2 Results of the First Meeting of Site-Based Fisheries Refugia Management Board in Surat Thani Province on 26<sup>th</sup> March 2019 at Wang Tai Hotel, Surat Thani Province
- 3.3 Results of the 2<sup>th</sup> Meeting of the Regional Scientific and Technical Committee on 21<sup>st</sup> – 23<sup>rd</sup> May 2019 at Kampot, Cambodia

**AGENDA 4           MATTERS FOR CONSIDERATION**

- 4.1 Approval of Quarterly Progress Report, Expenditure Report, Costed Work Plan and Cash Advance Request

**AGENDA 5           ANY OTHER BUSINESS**

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**ANNEX 2****LIST OF PARTICIPANTS****Thailand National Fisheries Refugia Committee**

1.	Mr. Thaworn Jirasoponrak	Deputy Director-General of the Department of Fisheries	Acting Chairman
2.	Assoc. Prof. Shettapong Maksumpun, Ph.D. (Mr.)	Dean of the Faculty of Fisheries, Kasetsart University	Committee
3.	Ms. Varatip Buakaew	Head of Natural Resources Department, Geo-Informatics and Space Technology Development Agency (Public Organization) (GISTDA) (represented Executive Director)	Committee
4.	Mr. Supawat Kan-atireklap, Ph.D.	Special Expert in the Research of Resources and Environment in Marine and Coastal Ecosystem, Department of Marine and Coastal Resources	Committee
5.	Ms. Rachada Kaonoona	Senior Fisheries Technical Officer, Coastal Aquaculture Research and Development Division, Department of Fisheries (Represented Director)	Committee
6.	Ms. Janup Sassanakit	Fishery Officer, Trat Provincial Fisheries Office, Department of Fisheries (Represented Director)	Committee
7.	Mr. Somporn Kuasakul	Senior Fishery Officer, Surat Thani Provincial Fisheries Office, Department of Fisheries (represented Director)	Committee
8.	Ms. Parinthon Veerapattananon	Representative from Project Coordinating Unit	Committee
9.	Ms. Praulai Nootmorn	Senior Expert in Marine Fisheries, Department of Fisheries	Committee and Secretary
10.	Mr. Kumpon Loychuen	Director of the Eastern Gulf Fisheries Research and Development Center (Rayong), Department of Fisheries	Committee and Assistant Secretary

**Observers**

1.	Ms. Pannalak Srithong	Fisheries Refugia Project Staff, Department of Fisheries
2.	Ms. Jutima Jangjaiboon	Fisheries Refugia Project Staff, Department of Fisheries
3.	Ms. Chanokporn Muenchamnan	Fisheries Refugia Project Staff, Department of Fisheries

