



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

REPORT

NATIONAL SCIENTIFIC AND TECHNICAL COMMITTEE MEETING

Bogor, September 23-24th 2022

Prepared by:

Research Institute for Fish Resource Enhancement (RIFE)
Agency of Marine and Fisheries Research and Human Resources (AMFRHR)
Ministry of Marine Affairs and Fisheries (MMAF)

**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
TRAINING DEPARTMENT**



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Southeast Asian Fisheries Development Center
Training Department
P.O.Box 97, Phrasamutchedi, Samut Prakan, Thailand
Tel: (66) 2 425 6100
Fax: (66) 2 425 6110
<https://fisheries-refugia.org> and
<https://seafdec.or.th>

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VENUE

Meeting room, Zest Hotel, Bogor, Indonesia.

OBJECTIVE OF THE MEETING

The meeting aimed to discuss and prepare the final academic manuscript for the implementation of Squid Fisheries Refugia in Bangka Belitung prior to submission to the local government. The meeting also facilitated discussion for the preparation of public consultation.

MEETING NOTES**Meeting Remarks by National Scientific and Technical Committee Focal Point (Astri Suryandari, S.Si., M.Si)**

- The Academic manuscript prepared as a recommendation proposal for the implementation of Fisheries Refugia of squid in Bangka Belitung Province will be proposed to the Province-Level Governance.
- To accelerate Squid Fisheries Refugia recommendation adoption by the local government of Bangka Belitung, coordination will be held by involving the related Directorate in MMAF.
- The recommendation proposal will be officially submitted by the Head of the Agency for Human Resource Development, MMAF to the Governor of Bangka Belitung, Thus, the academic documents shall be prepared by containing the management concept of fisheries refugia followed by additional description regarding the technical implementation of Fisheries Refugia for Squid.
- Those required points were expected to be discussed and prepared at this meeting.
- In addition, SEAFDEC required the Indonesia Fisheries Refugia Project team to submit the experience note for GEF-International Water.

Discussion

Day 1, September 23th, 2022.

Recent Issues

- Academic Manuscript has been revised according to the expert's input from the previous meeting.
- The local governance of Bangka Belitung has initiated Tuing Region in Bangka Belitung Province to be assigned as a marine tourism park which was also one of the concern areas for Fisheries Refugia location covering 7500 ha coastal area and consisted of several zones suggested.
- From the Fisheries Refugia potential area, there is a requirement to cluster in the smaller zone by and detailed description for the directed management to prepare technical description in the action plan.

Recommendations

- The recent status of Tuing region has been proposed as a marine tourism park which also includes areas of squid nursery as one of the protected areas. This may be followed by including the fisheries refugia concept to strengthen the management. The open-close fishing systems shall be highlighted as a part in enrich the management plan.
- In the previous proposal, the candidate areas for squid covered large areas. Thus, selecting an area of priority would be beneficial in increasing local government acceptance to adopt the squid refugia recommendation.
- The open-close systems may implement several supporting indicators, e.g., Open-time (duration to allow squid fishing), Close-time (duration to prohibit squid fishing), vessel size limitation, and fishing spot.
- Information regarding the peak season of matured squid has been identified. This information could be used as the base in deciding the time for the open and close fishing activities in the squid refugia area.
- Spatially, deciding the priority area may use squid fishing spots involving multiple fishing gears.
- Selected priority areas for squid refugia focussed on the protection of squid spawning as a critical part of the squid life cycle.
- Another squid early-life phase protection has been proposed by the local government as a part of the Tuing marine tourism park proposal. Thus, squid spawning area protection suggested by Fisheries Refugia Project may be strengthened squid management.
- Priority areas will be proposed in multiple options by considering fishing efforts in the areas and the peak season of mature squids.

Day 2, September 24th, 2022.

- According to the previous day's discussion, the proposed area has been plotted on a map.
- The zonation of squid refugia to support the academic manuscript will be mapped by consisting of all recommended refugia areas as the zone of spawning potential area to allow the local government to prioritize by considering existing area use established on site.
- Information regarding the existing supported environment as a consideration in supplementing recommendations by adding rehabilitation areas.
- This recommendation contains the implementation of the open-close system for squid refugia in proposed areas and rehabilitation areas which can be used as areas to increase successful squid in the phase of egg-laying and nursery.
- Regarding the experience note, the published documents as an example can be accessed through GEF- international waters website.

- The potential title suggested was ‘Toward Fisheries Refugia in Indonesia Coastal Water’. The title should be general to accommodate both Fisheries Refugia Project locations in Indonesia (Bangka Belitung and West Kalimantan).
- Several points to elaborate on this note shall be discussed,
 - issues** (growth stock overfishing, recruitment stock overfishing, and habitat degradation),
 - challenges** (Fisheries as livelihood, local community-need existed, conflict of interest among related stakeholders, sustainability resources),
 - experience** (habitat management: designation of MPA in Bangka and west Kalimantan, fisheries management: input control, community-based management: local wisdom for fish resource management),
 - Result** (Fisheries refugia for Penaeid shrimp in west Kalimantan – production status, critical habitat for penaeid shrimp: mangrove, fisheries refugia approach for fisheries management, Fisheries refugia for squid in Bangka Belitung – production status, critical habitat for squid, fisheries refugia approach for fisheries management),
 - Replication** (Community acceptance, Conflict of interest)
 - Significance** (The project will contribute to improving fisheries and habitat linkage management in the South China Sea and the Gulf of Thailand areas as one of GEF's target outputs, Fisheries refugia establishment in Bangka and west Kalimantan will support the fish resource recovery in the transboundary area in the South China Sea).

LIST OF PARTICIPANTS

No.	Name	Gender	Institution/Position
1.	Dr. Khairul Amri.	M	National Research and Innovation Agency
2.	Dr. Reny Puspasari.	F	National Research and Innovation Agency
3.	Dr. Amula Nurfiarini.	F	Research Institute for Fish Resource Enhancement
4.	Danu Wijaya, M.Si.	M	Research Institute for Fish Resource Enhancement
5.	Astri Suryandari, M.Si.	F	Research Institute for Fish Resource Enhancement
6.	Riswanto, S.Kel.	M	Research Institute for Fish Resource Enhancement
7.	Indriatmoko, S.Kel.	M	Research Institute for Fish Resource Enhancement
8.	Aira Zatta Ismah, S.Kel.	F	Fisheries refugia project

MEETING DOCUMENTATION

