



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

REPORT

COORDINATION MEETING FOR PROJECT IMPLEMENTATION IN BANGKA BELITUNG: MEETING WITH LOCAL GOVERNMENT, EXPERT AND FISHING COMMUNITY IN BANGKA BELITUNG

BANGKA BELITUNG, INDONESIA

5-6 November 2020

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**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
TRAINING DEPARTMENT**



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Report of The Meeting

The project entitled "Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand" has been developed as an effort to overcome habitat degradation and maintain the sustainability of fish stock in the South China Sea. This project was developed through the implementation of the fisheries component of the Strategic Action Program for the South China Sea and implemented regionally by the Southeast Asian Fisheries Development Center (SEAFDEC) in partnership with government agencies responsible for fisheries in the 6 participating countries.

The project is comprised of 4 components, namely components (1) Identification and management of fisheries and important habitat relationships in fisheries refugia priorities in the South China Sea and the Gulf of Thailand; (2) improving critical/critical habitat management for fish stocks through national and regional actions to strengthen the enabling environment and knowledge base for fisheries refugia management in the South China Sea and Gulf of Thailand; (3) Management and dissemination of information to support the implementation of the refugia fishery concept at the national and regional levels in the South China Sea and the Gulf of Thailand; (4) National and regional cooperation and coordination for integrated management of fish stocks and critical habitats in the South China Sea and the Gulf of Thailand.

Indonesia has decided two potential priority areas as fisheries *refugia* project sites. The candidates of the sites are Bangka-Belitung Waters and West Kalimantan Waters. The species focused for fisheries refugia in Bangka Belitung is squid and West Kalimantan is Penaeid shrimp (*Fenneropenaeus* spp).

I. Meeting with Marine and Fisheries Agency of Bangka Belitung

In terms of fisheries management, Indonesia consists of eleven Fisheries Management Areas of the Republic of Indonesia (FMA-RI), in which two project sites are Karimata Strait waters and Natuna Sea waters included in FMA-RI 711. West Kalimantan and Bangka Belitung Islands are two province with directly bordering with the concerned area that were also proposed for project implementation.

Bangka Belitung water have various aquatic species that contribute to fisheries sector and provide high economic value such as squid and small pelagic fish. The squid is a non-fish category fishery export which is higher compared to other commodities. The fundamental problem in managing fish resources is how to manage these resources in order to generate maximum benefits for the community and also maintain its sustainability. In addition, threats to the sustainability of fish stocks also come from disruption of spawning and nursery ground as critical habitat in fish lifecycle. For this reason, management measures are required in order to protect these important habitats through the concept of refugia.

To achieve the success of project implementation in Bangka Belitung, it is necessary to coordinate with the local government, in this case the Marine and Fishery Agency of Bangka Belitung Province as authorized manager of fisheries sector. The meeting for coordination on the implementation of the project entitled "Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand", was held at the Fisheries Agency of Bangka Belitung Province on 5th November 2020. The objectives of the meeting were following:

- a. Coordinating with Fisheries Agency of Bangka Belitung regarding the implementation of the SEAFDEC/UNEP//GEF Fisheries Refugia Project.
- b. Obtaining information regarding policy and regulation that have been implemented by the local government in fisheries management especially for squid as a basis information for establishing fisheries refugia.

- c. Obtaining information regarding important habitats such as mangroves, coral reefs and seagrasses that have been protected for the purpose of sustainability of fish resources.

Based on the results of the discussion, several important points could be noted:

- Marine and Fishery Agency of Bangka Belitung Province very supportive and willing to collaborate with Ministry of Marine Affairs and Fisheries to achieve the goal of the project which in line with efforts to manage squids' resources in Bangka Belitung Islands.
- Bangka Belitung sea is a potential producer of squids which contribute to fishery export of Indonesia. It is known that most of the Bangka Belitung sea is fishing grounds for squid. There are several districts that are fishing bases for catching squid, namely Bangka district, South Bangka District, West Bangka and Belitung district. The species of squid from Bangka Belitung waters are *Uroteuthis chinensis*, *Loligo chinensis* dan *Sepia* sp, where *Uroteuthis chinensis* is dominant species and mostly caught along the sea of Bangka – Belitung. The *Uroteuthis chinensis* is spread almost throughout the sea of Bangka Belitung Islands Province.
- The Government of Bangka Belitung Province has proposed a conservation area in Tuing, located in Bangka Regency that was designated by the Decree of the Governor of Bangka Belitung Number 188.44/739/DKP/2018. The proposed conservation area of Tuing was planned to be managed as fishery sanctuary. The proposed conservation area based on the Decree was 9,809.56 Ha. However, on the latest coastal zoning plan of Bangka Belitung Provinces, the proposed conservation area has been adjusted to around 7,300 Ha and even now, the status of Tuing area has not been designated as a conservation area.
- Tuing coastal is located in Mapur Village, Riau Silip sub-district, Bangka Regency. The coastal area of Riau Silip District (especially eastern part) is known as fishing ground that utilize by fishermen from Bangka Belitung and Java island as well. The main and important catch of fishing communities in this area is squid (*Uroteuthis chinensis*.)
- The Tuing coastal has important habitat such as coral reefs, mangrove and seagrass which are indicated have a link to the life cycle of various fishes, crustaceans, molluscs and another aquatic biota. In management and zonation plan of conservation area of Tuing, the conservation area was planned for the purposes of protecting and managing squid (*Uroteuthis chinensis*) which is important and high economic value commodity in Bangka Belitung Province. This is because Tuing sea and costal was indicated as spawning and nursery ground for *Uroteuthis chinensis*. Based on the observation on fishermen's catch in those area, many squid were caught in various size, categorized as young, adult and mature squid. Therefore, the management and protection of spawning and nursery habitat of squid in Tuing must be carried out as an effort to maintain the sustainability if squid fishery in Bangka.
- The local government fully support in establishing *fisheries refugia* of squid in Tuing water, where the conservation area was proposed before. The *fisheries refugia* can be a management approach for maintaining squids resources sustainability in Bangka Belitung.

List of participants :

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|----|----------------------|---|
| 1. | Winarso | Fisheries Agency of Province of Bangka Belitung Islands |
| 2. | Wawan R | Fisheries Agency of Province of Bangka Belitung Islands |
| 3. | A.Febrianto | Fisheries Agency of Province of Bangka Belitung Islands |
| 4. | Dr. Amula Nurfiarini | Research leader (Research Intitute for Fish Resource Enhancment/RIFE) |
| 5. | Astri Suryandari | Researcher (RIFE) |
| 6. | Danu Wijaya | Researcher (RIFE) |

7. Dyah Ika Researcher (RIFE)
Kusumaningtyas

II. Coordination with expert in Bangka Belitung University

The project implementation is required coordination and collaboration among stakeholders and experts of squid's fishery in Bangka Belitung. In order to support identification and management of fisheries and critical habitat linkage at priority fisheries refugia sites as one of the components of the project, we do collaboration with Bangka Belitung University. Bangka Belitung University known as a pioneer of squid research in Bangka Belitung Province. The coordination meeting with experts and local team was held at Bangka Belitung University on 5th November 2020.

Based on the results of the discussion, several important points could be noted:

- Bangka Belitung University fully supports on project implementation and provides a team to assist in collecting data and information regarding squids and their habitat that required for establishing fisheries refugia.
- Bangka Belitung University has carried out research and observation regarding squids and the habitat in Bangka Regency and South Bangka for the past ten years. One of the observation sites for squids is Tuing coastal.
- Based on the research conducted by Bangka Belitung University, the fishing site for squid is spread throughout the Bangka Belitung sea.
- The fishing season for squids in Bangka sea is on April, May, June, October and November with the peak season occurred in November. Fishing season index for squid in Bangka sea varies between fishing locations. The fishing site for squid is spread throughout the Bangka Belitung sea
- Experts from Bangka Belitung University observed that mostly squids lay their eggs in shallow coral reefs. However, sometimes they also found squids eggs in seagrass.
- Bangka Belitung University has developed research on squid aquaculture. Aquaculture is an option to overcome the fishing pressure on squids in their habitat. Moreover, the aquaculture is required to support restocking of squid in their habitat.
- Regarding enhancement program for squid, Bangka Belitung University has developed attractor as media for squid's eggs attachment. The squid attractor is the one of technologies that can be applied to support squid enhancement in their habitat.

List of participants :

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|-------------------------------|---|
| 1. Tri Lestari | Dean of Fisheries Faculty of Bangka Belitung University |
| 2. Wahyu Adi | Vice Dean Fisheries Faculty of Bangka Belitung University (BBU) |
| 3. Aditya Pamungkas | Aquaculture Lecturer of BBU |
| 4. Indra Ambalika | Marine Science Lecturer of BBU |
| 5. Ahmad Fahrul S | Aquaculture Lecturer of BBU |
| 6. Dr. Amula Nurfiarini | Researcher RIFE |
| 7. Astri Suryandari | Researcher RIFE |
| 8. Danu Wijaya | Researcher RIFE |
| 9. Dyah Ika
Kusumaningtyas | Researcher RIFE |

III. Coordination with fishing community in Mapur Village, Riau Silip sub district

The fishing community in Mapur village, Riau Silip sub district consist of squid fishermen that have fishing ground in Tuing water. The meeting was held in Mapur Village at 6th November 2020.

Based on the results of the discussion, several important points could be noted:

- The fishermen in Tuing, Mapur village have established a fishing group that is active in supporting fisheries management, especially for squid fishery.
- All of fishermen in Mapur village were squid fishermen and their fishing ground are in Tuing coastal and sea.
- This group of fishermen always record their daily catch which were coach and supervised by fishery extension agent. All the record daily catch is very important for developing squid fisheries statistic which can be used for production report and monitoring squid resources.
- The fishermen in Tuing expect that the Tuing area can be protected for ensure squid sustainability, because the Tuing sea is important habitat for squid. Furthermore, they fully support for establishing fisheries refugia in Tuing area and are willing to comply with all forms of regulations regarding squid fisheries and habitat management..

List of Participants

1.	Arsih	Fisher
2.	Indra M	Fisher
3.	Angga Satria	Fisher
4.	Muhamad Yusuf	fishery extension officers
5.	Saryadi	Fisher
6.	Didi Prihatin	Fisher
7.	Astri Suryandari	Researcher RIFE
8.	Dr. Amula Nurfiarini	Researcher RIFE
9.	Danu Wijaya	Researcher RIFE
10.	Dyah Ika Kusumaningtyas	Researcher RIFE

Annex



Meeting coordination with official of Fisheries Agency of Province of Bangka Belitung Islands



Meeting coordination with lecturer and experts from Bangka Belitung University



Discussion with fisher community in Mapur Village