



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

REPORT

**FISHERIES REFUGIA SITE MANAGEMENT COMMITTEE MEETING:
BOLINAO SITE**

PANGASINAN, PHILIPPINES

9 JUNE 2021

Prepared by
**NATIONAL FISHERIES RESEARCH AND DEVELOPMENT INSTITUTE
PHILIPPINES**

**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
TRAINING DEPARTMENT**



First published in Phrasamutchedi, Samut Prakan, Thailand in June 2021 by the SEAFDEC-UNEP-GEF Fisheries Refugia Project, Training Department of the Southeast Asian Fisheries Development Center

Copyright © 2021, SEAFDEC-UNEP-GEF Fisheries *Refugia* Project

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder provided acknowledgement of the source is made. The SEAFDEC-UNEP-GEF Fisheries *Refugia* Project would appreciate receiving a copy of any publication that uses this publication as a source.

No use of this publication may be made for resale or for any other commercial purpose without prior permission in writing from the SEAFDEC Secretary-General at.

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>

DISCLAIMER:

The contents of this report do not necessarily reflect the views and policies of the Southeast Asian Fisheries Development Center, the United Nations Environment Programme, and the Global Environment Facility.

For citation purposes this document may be cited as:

NFRDI/Philippines, 2021. Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand, Report of Fisheries Refugia Site Management Committee Meeting: Bolinao Site. Southeast Asian Fisheries Development Center, Training Department, Samut Prakan, Thailand; FR/REP/PH52, 10 p.

HIGHLIGHT ACTIVITIES:

- The Meeting started with the usual preliminaries. After the acknowledgement and introduction of participants, the overview of the meeting was discussed briefly. The agenda of the meeting is attached as Annex A.
- The meeting aimed at updating the stakeholders of the project progress and forthcoming activities as well as validate the fisheries profile, boundary delineation, vision, goals and threats of the *refugia* site which will be part of the fisheries *refugia* management plan which include the
- During the preliminaries, Mr. Noel Barut gave the opening remarks and acknowledged the management committee members who were present during the meeting and assured the members of the committee that although there had been some challenges in conducting face to face activities due to the pandemic, the project is still pushing through with all its activities in the *refugia* sites. After the introduction of participants, the overview of the meeting was briefly discussed. The agenda of the meeting is attached as Annex A.

Project Overview and *Refugia* Concept

- The Project Technical Advisor gave an overview of the project, for the benefit of the new representatives coming from the different Agencies/organizations as members of the Committee whose former representatives were transferred to a different unit, promoted etc. He added that Bolinao is one of the priority fisheries *refugia* sites in the Philippines and the other two fisheries *refugia* sites are in Coron, Palawan and Masinloc, Zambales. He shared that the project is a follow through of the UNEP GEF first project entitled "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand". He further mentioned that the present Mayor, Hon. Alfonso Celeste was also the former Mayor during the implementation of the phase 1 project.
- He also mentioned that the present fisheries *refugia* site is an expansion of the original site of the seagrass habitat component of this project where the fisheries component had work together with the habitat component. The output of the first project is now what the present project is implementing.
- Mr. Barut summarized the project activities from 2017 to the present inter alia;
 - Identification of the priority species to be managed for Bolinao site which is the Siganids species;
 - Identifications of threats and issues regarding fisheries and habitat management;
 - Delineation of the proposed *refugia* site;
 - Review of the draft guidelines on procedures for the formal designation of Fisheries Refugia.
- The trainings conducted in Bolinao site were also mentioned in his presentation, such as:
 - Essential Ecosystem Approach to Fisheries Management November 4-8, 2019
 - Training on Reproductive Biology Study of Priority Species, November 2020
- Mr. Barut also explained the fisheries *refugia* concept which focus on the critical stages in the life cycle of the fish species which were studied and identified during the phase 1 of the project. The two critical stages are the spawning and juvenile population of the fish species. The location where the fish spawn and where the fish eggs and larvae are transported by the current are the two important sites that should be managed and protected. The location

where the fish spawned shall be designated as spawning refugia and the area where the fish eggs and larvae are drifted by the current shall be identified as the nursery/feeding area. The protection of the spawning population and the juvenile fish shall address recruitment overfishing and growth overfishing respectively. He emphasized that the protection and management effort of *refugia* looks into the space and time aspect of the critical species to be protected, and integrates both fish habitat considerations for its management. He also shared that *refugia* is not simply a no take zones, but should have management plans to be implemented.

- Results of fisheries data collection and ichthyoplankton survey were also presented. Among the data shared include the catch per gear in metric tons, actual total landed catch per landing site and the relative abundance of major species, distribution of fish eggs and larvae composition in Bolinao coastal waters.
- During the plenary, the representative from the Office of the City Mayor inquired if the research conducted that could support the close fishing season for Bolinao has been completed, and if information on the peak season of the priority species has been identified. Mr. Barut responded that the data collection for the reproductive biology is still ongoing, and that results of the study will be shared to the local government of Bolinao.

Plenary Workshop:

1. Fisheries *Refugia* Management Plan

1.1. Ms. Eunice Gasmin, Independent Consultant facilitated the workshop in validating the inputs for the *Refugia* Management Plan. The discussion on the vision, goal and threats took off from the outputs of the Site Com Members who participated in the project's consultation workshop and the Essential Ecosystem Approach on Fisheries Management Training, while the discussion on the fisheries profile were taken from the plans and other related documents from Bolinao.

A. Validation of the Fisheries Profile

1.2. On the fisheries profile presented, the Site Com suggested to check if the results of the 2020 census have been released. They also proposed to add tourism as other source of income, as tourism industry is already progressing in Bolinao. The Site Com agreed to have *Siganus sp* (for species validation) with the local name of "Barangen Pusa" as the site's priority species.

B. Vision and Goal Setting Workshop

1.3. In crafting the vision statement, the participants were reminded to take into consideration the three pillars of EAFM as well as the equitable use of resources for all stakeholders. After the deliberation of the proposed vision, the Bolinao Site Com agreed on the following vision statement:

"Bolinao is a model fishery management area with abundant and sustainable resources and managed environment, equitably enjoyed by empowered and law-abiding citizens guided by a dynamic, efficient and responsible governance."

1.4. The Site Com also agreed to adopt the following goals which will serve as an anchor to the strategies for the management plan:

Main Goal:

- People of Bolinao enjoy the economic benefit on sustainable coastal fishery resources utilization through the integration of habitat and fisheries management.

Specific Goals:

- Ecological
Ecosystem health protected and sustained.
- Human Well Being
Improved quality of life of the municipal fisherfolk in particular and the community in general.
- Good Governance
Relevant policies, rules and regulations enacted and properly implemented.

C. Validation of the Boundary Delineation of the *Refugia* Sites in Bolinao

- 1.5. Mr. Barut presented the fisheries *refugia* map prepared based on the at-sea mapping in Bolinao, that includes the *refugia* site, spawning ground, sampling sites, barangay sites and municipal boundaries.
- 1.6. Considering the volume of fish landed and the existing MPA in the area, the Site Com proposed and agreed to include Barangay Patar in the fisheries *refugia* site. The project team will revise the map and present to the management committee for finalization.

D. Validation Threats of Fisheries *Refugia* Site in Bolinao

- 1.7. The issues and threats previously identified in previous consultation workshops were discussed and further elaborated. The inputs were grouped into three categories: Ecological Well Being, Human Well Being and Governance.
- 1.8. Below are the results of the deliberation of the Bolinao site issues and threats:

Ecological Well Being	Human Well Being	Governance
<p>1. OVERFISHING</p> <ul style="list-style-type: none"> • Recruitment Overfishing • Growth Overfishing – Catching of “Padas” • Illegal Fishing – dynamite fishing, sodium cyanide fishing; Use of destructive fishing gears (fine mesh nets, triplets) <p>2. INDUSTRIAL ACTIVITIES/SILTATION</p> <ul style="list-style-type: none"> • Reclamation to build houses for increasing population 	<p>1. POVERTY</p> <ul style="list-style-type: none"> • Rapid increase in population • Low incomes • Lack of alternative / supplemental livelihood 	<p>1. REGULATION</p> <ul style="list-style-type: none"> • fishing activity enactment • Fisherfolk does not follow orders/ regulations <p>2. FISH CAGES</p> <ul style="list-style-type: none"> • caretakers need more information on Good Aquaculture Practices <p>3. ILLEGAL FISHING</p> <ul style="list-style-type: none"> • ACTIVITY fine meshed nets; compressor fishing, poaching (local and

<p>3. CLIMATE CHANGE EFFECTS</p> <ul style="list-style-type: none"> • Stronger and longer typhoons • Storm surge <p>4. HABITAT DEGRADATION</p> <ul style="list-style-type: none"> • Coral bleaching • Sand Quarrying • Harvesting of sargassum as feed for sea urchin) 		<p>international)</p> <p>4. LIMITED RESOURCES (FLOATING ASSETS) FOR LAW ENFORCEMENT</p> <p>5. LIMITED FUNDING FOR MARINE AND ENVIRONMENT RESOURCE MANAGEMENT</p>
---	--	--

1.9. In addition to the validated threats, the participants of the EAFM training suggested to also incorporate other issues identified during the workshops of the EAFM training.

E. Project Next Steps and Needed Assistance from LGU

1.10. The project team shared the forthcoming activities of the project along with the needed actions from the Site Com were discussed:

(a) Preparation of Fisheries Refugia Management Plan – *the Site Com was informed that management plans will be formulated for all the refugia sites using the Ecosystem Approach to Fisheries Management pillars and will also take off from existing LGU documents such as the Comprehensive Land Use Plan, etc. To finalize the document, the Site Com was requested to identify a focal person in the preparation of the management plan.*

(b) Establishment of Refugia Management Teams and Site Based Volunteers – *to ensure the sustainability of the initiatives and assist in the implementation of the remaining project activities, Refugia Management Teams shall be formed. The Site Committee was requested to identify teams on law enforcement, public education and livelihood (proposal making).*

1.11. Ms. Blesilda Domagas, the Municipal Administrator of Bolinao will serve as a focal person in identifying the focal persons for the Fisheries Management Plan and *Refugia* Management Teams.

- **Review of fisheries and environmental laws**- the Site Com was informed that a Fisheries Law Specialist will be hired by the project to assist in reforming national policy, legal and planning frameworks for demarcating boundaries and managing *refugia*. The Site Com, particularly the SB Chairman on Fisheries and SB Chairman on Environment agreed to assist by providing the ordinances related to environment and fisheries that have been approved by the Sangguniang Bayan.
- **Information Education and Communication (IEC) Materials** – *on the inquiry on their recommended IEC materials to strengthen awareness of the community about the refugia, the Site Com suggested to distribute pamphlets, brochure and fliers in local dialect.*

F. Other Matters/Next Steps

1.12. The open-forum regarding the existing initiatives of Bolinao on coastal resource management, the PO representative, Ms. Annabelle S. Echavez shared the following initiatives of the municipality:

- Registration of types of motorboats, fishing gear, and fisherfolk
- Fisherfolk consultation on Fisheries Code
- Apprehension of violators within the coastal waters of the municipality
- Partnership with academe (socio economic surveys)
- Inventory of mariculture, sites and zoning
- Deployment of fish cages and other structures
- Subsidy for fisherfolk
- Mangrove and MPA networks

1.13. Discussion on the potential source of funds for fisheries management was initially discussed. The LGU of Bolinao agreed to discuss the matter internally.

G. Closing Remarks

1.14. During the closing ceremonies, SB on Environment and Fisheries Hon. Joven C. Caasi acknowledged the participants of the meeting, as well as project's initiatives and its potential impact on food security. He expressed optimism to be able to see more progress on the next meeting.

1.15. On behalf of the Mayor, the Municipal Administrator also acknowledged the project team for the continued support to Bolinao through the project. She expressed appreciation to the project for choosing Bolinao as the project site, and hopes that the initiative will also be conducted at the national scale. Finally, she assured the project team of her continued support and look forward to the continued implementation of the activities.

1.16. The National Project Coordinator likewise expressed his appreciation to the active participation of the *refugia* site committee members and looks forward to a more fruitful collaboration with the Bolinao Local officials and the Community. He then declared the adjournment of the meeting.

FISHERIES REFUGIA MANAGEMENT COMMITTEE MEETING – Bolinao Site
El Pescador Resort Hotel
June 9, 2021

Program of Activities

8:30 AM	Registration
9:00 AM	Preliminaries
	Project Overview and <i>Refugia</i> Concept
	Project Updates 2017-2020
	Initial Results of Fisheries Landing Survey (2018-2019)
	Validation of Fisheries Profile and Boundary Delineation and Threats of Fisheries <i>Refugia</i> Site in Bolinao
	Other Matters and Way Forward <ul style="list-style-type: none"> - <i>Preparation and identification of focal persons for the preparation of Fisheries <i>Refugia</i> Management Plan and</i> - <i>Establishment of <i>Refugia</i> Management Teams and Site Based Volunteers</i> - <i>Capacity Building Activities (proposal making)</i> - <i>Review of fisheries and environmental laws</i>
	Synthesis
12:00 NN	- LUNCH -
1:00 PM	Adjournment
2:00 PM	Fisherfolk consultation

FISHERIES REFUGIA MANAGEMENT COMMITTEE MEETING – Bolinao Site
El Pescador Resort Hotel
June 9, 2021

Attendance

No	NAME	SEX	DESIGNATION/AGENCY	CONTACT NUMBER
1.	SONIA F. FERNANDEZ	F	LGU – MUNICIPAL AGRICULTURIST	09169275429
2.	JESEM S. GABATIN	M	LGU – MFARMC	09494126710
3.	ANNABELLE S. ECHAVEZ	F	LGU - CRM	09996877671
4.	PCMS ALEJANDRO S. BELTRAN	M	PNP - MARITIME	09485538491
5.	MARK ARJAY S. RAGOS	M	TECHNICAL ENUMERATOR	09509497792
6.	EDWIN P. CONTE	M	LGU - REPRESENTATIVE	09192082300
7.	MIGUELITO F. GOMEZ	M	BOLINAO SCHOOL OF FISHERIES	09666437425
8.	CAROLINA M. ABAD	F	LGU	-
9.	SNI MICKEL POLO PCG	M	PHILIPPINE COAST GUARD	09505160664
10.	PO2 HONEY L TWINGAN PCG	F	PHILIPPINE COAST GUARD	09264010847
11.	CYRUS EVANGELISTA	M	DILG	09154232535
12.	BERNABE GABATIN	M	TECHNICAL ENUMERATOR	-
13.	MARGIRIE ASUNTO	F	BFAR 1	09395399482
14.	BLESILDA R. DOMAGAS	F	LGU – ADMIN STAFF	09209472747
15.	JOVEN C. CAASI	M	LGU – SB MEMBER	09105603986
16.	JUNIOR C. CALUTA	M	-	09105603986
17.	LILIBETH ABINA	F	NFRDI	09173091188
18.	NOEL C. BARUT	M	PROJECT COORDINATOR	-
19.	EUNICE GASMIN	F	-	09950866135
20.	PERCIVAL CHAVEZ	M	NFRDI	09179645628

FISHERIES REFUGIA MANAGEMENT COMMITTEE MEETING – Bolinao Site
El Pescador Resort Hotel
June 9, 2021

MEETING MINUTES
MEMBERS

Present:

Local Government Unit (LGU)	
Vice Mayor	Hon. Richard Celeste (Vice Chairperson)
SB Chair - Agriculture and Fisheries	Hon. Joven C. Caasi (Member)
SB Chair	Hon. Carolina M. Abad (Member)
SB Chair	Hon. Cyrus Evangelista (Member)
Administrator	Ms. Blessilda R. Domagas (Member)
Municipal Agriculture Office (MAO)	Ms. Sonia F. Fernandez (Member)
BFAR 1 Regional Office	represented by Ms. Margirie Asunto
Philippine Coast Guard (PCG)	PO2 Honey L. Twingan (Member)
Philippine National Police (Maritime)	PCMS Alejandro S. Beltran (Member)
Municipal Fisheries and Aquatic	Mr. Jesem S. Gabatin (Member)
Resources Management Council (MFARMC)	
Academe Representative	Mr. Miguelito F. Gomez (Member)
People organization Representative	Ms. Annabelle S. Echavez (Member)

Absent:

Community Environment and Natural
Resources Office (CENRO-DENR)

Guests:

Philippine Coast Guard	SNI Mickel Polo
LGU Consultant	Edwin P. Conde
National Technical Coordinator/Consultant	Mr. Noel C. Barut
Independent Consultant	Ms. Eunice A. Gasmin

Secretariat:

Science Research Analyst	Ms. Lilibeth C. Abina
--------------------------	-----------------------