



**Regional Scientific and Technical Committee Meeting for
the SEAFDEC/UN Environment/GEF Project on Establishment and Operation of a Regional
System of Fisheries *Refugia* in the South China Sea and Gulf of Thailand**

11th – 13th September 2018

Centara Chaan Talay Resort & Villas, Trat Province, Thailand

BASELINE SURVEY TEMPLATE

This template is developed to set up a baseline data requirement for “SEAFDEC/UN Environment/GEF Project on Establishment and Operation of a Regional System of Fisheries *Refugia* in the South China Sea and Gulf of Thailand” funded by GEF executed by UN Environment and implemented by SEAFDEC through the Project Coordinating Unit. It covers six countries of Cambodia, Indonesia, Malaysia, Philippines, Thailand and Viet Nam and is planned for 4 years from 2017 to 2020. The aims of this baseline survey are to understand the situation of participating fishing communities and their support institutions towards improved livelihoods and sustainable resources management at the selected Fisheries *Refugia* sites. It is anticipated that project activities based on the assessment from this baseline survey and establishing the system and operation of Fisheries *Refugia* will result in significant positive environmental and social benefits. Specifically, the project will develop the scientific, institutional and policy basis required to reduce the rates of loss of the South China Sea’s globally significant habitats and biodiversity due to fishing. The template is therefore designed to cover various issues which is expected to produce 4 outputs including:

- 1) Status of selected Fisheries *Refugia* species and their life-cycle and habitat linkages;
- 2) Co-management mechanism for sustainable utilization of fisheries resources and coastal habitat management;
- 3) Improved social benefits through the enhancing quality of fishery products and market chains;
- 4) Livelihood enhancement and diversification

The template consisted of 7 Parts as follows:

Part #	Contents	Page
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COUNTRY/ FISHERIES REFUGIA SITE NAME	
VILLAGE / COMMUNE / DISTRICT / PROVINCE	
DATE	
INTERVIEWER	

1. GENERAL INFORMATION

1.1. Interviewee name (optional)	
1.2. Age	
1.3. Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female
1.4. Classification of household by prosperity	<input type="checkbox"/> Certified poor <input type="checkbox"/> Observed poor <input type="checkbox"/> Not poor
1.5. Classification of Household by main career	<input type="checkbox"/> Off shore fishing <input type="checkbox"/> Near shore fishing <input type="checkbox"/> In shore fishing <input type="checkbox"/> Inland fishing <input type="checkbox"/> Aquaculture
1.6. Number of people in Household	
1.7. Number of laborers in Household	
1.8. Number of people in Household working in fisheries	
1.9. Types of fishing boat used by Household (by capacity)	

2. CO-MANAGEMENT/**FISHERIES REFUGIA SYSTEM**

A) Understanding and expectations of the concept “Fisheries Refugia System (FR-system)”

- 2.1. To what extent are you aware of the term “**FR-system**”?
- Very aware Aware. Not aware
- 2.2. What do you think about the overall usefulness of **FR-system** in fisheries resources management?
- Very useful useful not useful No idea
- 2.3. What do you think about the overall usefulness of **FR-system** in fisheries livelihoods improvement?
- Very useful useful not useful No idea

B) The attitudes and perceptions of fishers to formal and traditional management systems:

2.4. What do you think about the effectiveness of formal fishery management systems?
 Very effective Effective Not effective No idea

2.5. What do you think about the effectiveness of informal fishery management systems?
 Very effective Effective Not effective No idea

C) Practices in current management systems:

2.6. Which member in your family often participate in fishery management activities?
 Male Female Both None

If none go to 2.9.....

2.7. To what extent did you participate in fishery management activities?
 Active participation Passive participation Not participate

2.8. During the last six months, did any member in your family attend any fishery management meetings / activities?
 Yes No Don't know

2.9. To what extent are you satisfied with current fishery management activities?
 Very satisfied Satisfied Not satisfied No idea

D) Current systems for conflict resolution in fishery resource management and use:

2.10. What do you think about the effectiveness of the conflict management systems?

	Very effective	Effective	Not effective	No idea
Informal systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E) The perceptions on the state of the fisheries resources and allocation of benefits from fisheries

2.11. What are your opinion about fisheries resources **during the last five years?**

	Decrease	Increase	Stable	No idea
Productivity of fish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diversity of fisheries resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lagoon and sea water pollution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishing capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.12. What are your opinion about fisheries resources during **the next five years**?

	Decrease	Increase	Stable	No idea
Productivity of fish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Catch per unit effort productivity of fisheries resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diversity of fisheries resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lagoon and sea water pollution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishing capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.13. What do you think about level of the equity in getting benefits from fisheries among different resource user groups?

Equal Not equal No idea

2.14. Who have more benefits from fishery resources?

Poor	Non-poor	The same	No idea
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Men	Women	The same	No idea
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Very effective	Effective	Not effective	No idea
Informal systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. SAFETY AT SEA AND REGULATION

A) The information on safety at sea that fishers use and the ways to access this

3.1. To what extent are you aware of the availability of Safety at sea (SAS) information:

Very aware Aware Not aware

3.2. To what extent can you access to information on SAS

Easy Difficult Not at all

3.3. To what extent are you satisfied with the following channels for accessing information on safety at sea?

Information channels	Very satisfied	Satisfied	Not satisfied
Radio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coastal communication / information station	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Border Guard Wireless systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commune broadcast system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal communication equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.4. How useful is the SAS information to your family ?

Type of SAS information	Very useful	Useful	Not useful	No idea
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B) Awareness / compliance with safety regulations.

3.5. To what extent are you aware of the following basis safety at sea equipment on boat?

Basis safety equipment	Very aware	Aware	Not aware
Life vest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifebuoy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Locating equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.6. Do you and your family members comply with the following regulations on safety at sea?

Regulations on safety at sea	Yes	No	Not required
Shipping safety equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life vest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifebuoy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire fighting equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trained staff in safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Valid ship driving license	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Valid boat registration certificate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Valid staff registration certificates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C) Boat registration:

3.7. During the last 12 months, how many inspections were made with your boat(s)

	Times of random inspection	Times of periodical inspection
Safety equipment inspection	<input type="checkbox"/>	<input type="checkbox"/>
Technical inspection (engine)	<input type="checkbox"/>	<input type="checkbox"/>

D) The systems set up to coordinate responses to safety issues and disasters.

3.8. What do you think about the effectiveness of the systems for responding safety issues and disasters?

- Very effective Effective Ineffective No idea

E) Confidence to avoid accidents at sea

3.9. Have you or your family members ever been trained in avoiding and dealing with accidents at sea?

- Yes No

3.10. How confident are you to avoid accidents at sea?

- Very confident Confident Not confident

3.11. How confident are you to deal with accidents at sea?

- Very confident Confident Not confident

4. POST HARVEST AND MARKETING**A) Post-harvest skills, knowledge and practices.**

4.1. When are you your fish products applied post-harvest method to maintain their quality?

- On boat On land On boat and on land Not at all

4.2. How skillful are you and your family in using the following post-harvest methods

Postharvest methods	Very aware	Aware	Not aware
Using ice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using salt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.3. To what extent does your family apply the following post-harvest methods to the harvested production ?

Post harvest methods	Fully applied	Partly applied	Not applied
Using ice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using salt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grilling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.4. Have you or your family members attended a training course on post harvest during the last three years?

Yes

No

B) Post-harvest facilities available and being used:

4.5. Availability, status and utilization of post-harvest facilities

Post harvest facilities	Availability		Status		Frequency of use			
	Yes	No	Working properly	Not working properly	Daily	Some-time	Rarely	never
Ice store on boat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulating box	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cold store	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fridge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drying oven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C) Distribution and use of fish and fisheries products:

4.6. To whom did you sell your fish / fisheries products last year?

Products	Fish frozen factory (%)	Middlemen (%)	Local Processing enterprise	Local market (%)	Others (%)	Don't know
Shrimp						
Crab						
Green crab						
Fish						
Fresh squid						
Dried squid						
Dried fish						
Grilled fish						
Others						

4.7. Where did you sell your fish / fisheries products last year?

Products	Provincial market (%)	National Market (%)	International (%)	Don't know
Shrimp				
Crab				
Green crab				
Fish				
Fresh squid				

Dried squid				
Dried fish				
Grilled fish				
Others				

D) Influence on the market:

4.8. To what level do you depend on middlemen (on price) in trading fish / fisheries products?

Products	High dependent	Dependent	Independent	No idea
Shrimp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Green crab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fresh squid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dried squid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dried fish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grilled fish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E) Policies and institutions related to post-harvest fisheries:

4.9. To what extent are you satisfied with the support of the following institutions on post harvest fisheries?

Institution	Satisfied	Not satisfied	No idea
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. LIVELIHOOD ENHANCEMENT AND DIVERSIFICATION**A) Perception livelihood options**

5.1. What do you think about the livelihood opportunities for fishing communities compared to five years ago?

Better No change Worse No idea

B) Annual average income

5.2. Which of the following activities are major sources of livelihood? Please put rank in order of importance. (Rank the first (1) to be the most important source)

Activities	Rank of income
Capture fisheries	
Aquaculture	
Agriculture (crop, livestock and forestry)	
Fishery processing	
Coral reefs mining/collection	
Mangroves harvesting	
Seaweed farming	
Laboring	
Trading	
Live stock	
Tourism activities	
Business	
Wages or salaries	
Others, specify_____.	

5.3. What percentage of your income is derived from fishing?
 76% - 100% 50% - 75% 25% - 50% Less than 25%

5.4. When you compare the income level of this household to other household in your village would you say that your household is?
 Better off About the same Worse off

5.5. What are the major problems facing your activities?

Issues	(tick ✓)
1. Lack of credits	<input type="checkbox"/>
2. Low prices of outputs	<input type="checkbox"/>
3. High input prices	<input type="checkbox"/>
4. Inputs unavailability	<input type="checkbox"/>
5. Poor market networks	<input type="checkbox"/>
6. Bad health, accident	<input type="checkbox"/>
7. Degradation of coral reefs	<input type="checkbox"/>
8. Decrease in mangrove forests	<input type="checkbox"/>
9. Existence of protected areas	<input type="checkbox"/>
10. Decreasing in fishes	<input type="checkbox"/>
11. Lack of infrastructure	<input type="checkbox"/>
12. Lack of alternative employment	<input type="checkbox"/>
13. Increase in population in the area	<input type="checkbox"/>
14. Others, specify_____.	<input type="checkbox"/>

C) Attitudes towards changing or diversifying livelihoods:

5.6. To what extent are you satisfied with your family current livelihoods?

- Satisfied Not satisfied No idea

5.7. Do you want to diversify your family livelihoods?

- Yes No No idea

D) Availability of supporting services for livelihood enhancement and diversification

5.8. To what extent are you aware of the supporting services for livelihood enhancement and diversification?

- Very aware Aware Not aware

5.9. To what extent can you access to the following supporting services for livelihood enhancement and diversification?

Supporting services	Easy	Difficult	Not at all	No idea
Loan / credit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. FISHERIES AND MANAGEMENT**A) Fisheries**

6.1. What gear did you use to fish this year?

- Longline Handline Gillnet Otter Trawl Others, specify _____

6.2. Do you change gear type or configuration that you used this year?

- Yes, why _____ . No, why _____ .

6.3. Fisheries calendar

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
What months of the year do you normally fish?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What months of the year did you fish this year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In your community, among people who fish, which are the HIGH season months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which months are the LOW season months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which months is there almost no fishing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.4. How many years experience do you have in the fishery?

- <5 years 5-10 years 11-15 years 16-20 years. >20 years

6.5. Fishing boat

Name	Motor Code; 1= In board, 2=Out board	Length (meter)	Engine power (horse power)	Construction material Code; 1=wood, 2=fiberglass, 3=steel, 4=others.specify	Price of boat when purchased (USD)	Licensed Code; 1=Yes, 2=No	No. of crew (person)
1.							
2.							
3.							

6.6. Type of fishing gear

Type of fishing gear	No. of fishing gear	No. of fishing day per month	Fishing hours per day	No. of haul per fishing trip	Fishing ground
1.					
2.					
3.					
4.					
5.					

6.7. Which habitats do you fish?

- Coastal reef Lagoon Mangrove
 Outer reef (including passages) Pelagic/open ocean

6.8. Catch utilization and distribution (per trip)

Fish species	Utilization (%/trip)		Total quantity (kg/trip)	Price (USD/kg)	Total income (USD/trip)
	Family consumption	Sale			
1.					
2.					
3.					

6.9. What species do you direct for? (Rank the first (1) to be the most important resource)

Fish Species	Rank
Tunas	
Scads	
Mackerels	

Anchovies	
crabs	
shrimp	
squid	
Others_specify	

6.10. How did your catch rates for the current year compare to last year?

	Much higher	Higher	No change	Lower	Much lower	No opinion
Tunas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mackerels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anchovies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
crabs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
shrimp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
squid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others_specify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.11. How do you relate the current year to the best year you have ever had?

	Much higher	Higher	No change	Lower	Much lower	No opinion
Tunas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mackerels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anchovies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
crabs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
shrimp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
squid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.12. How much small fish did you see in your catches this year?

	A lot more small fish than last year	A little more small fish than last year	Same as last year	Fewer small fish from last year	A lot fewer small fish from last year	No opinion
Tunas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mackerels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anchovies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

crabs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
shrimp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
squid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.13. How did the condition of the fish in the current year compare with the previous year?

	Much thinner	Thinner	Unchanged	Fatter	Much fatter	No opinion
Tunas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mackerels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anchovies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
crabs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
shrimp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
squid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.14. Have you had by-catch problems in directed fisheries?

	Large problem	Slight problem	No problem	No opinion
Tunas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mackerels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anchovies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
crabs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
shrimp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
squid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. BIODIVERSITY AND MARINE ENVIRONMENT

A) Knowledge

7.1. Do you know what biodiversity is?

- Yes No Not aware of

7.2. If yes, what consists biodiversity?

- Animals/microorganism Trees/plants/forests Estuaries/coastal area
 Rivers/lakes/streams Caves

- 7.3. What are the roles/importance of the coastal and marine and other ecosystems in your area?
- Habitat of various species.
 - Provide foods, livelihood and medicinal benefits to the people.
 - Protect us from extreme/destructive effects of storm surges, waves and currents.
 - Provide recreational, physical and mental benefits, tourism activities, and spiritual activities.
 - Coastal, marine and other ecosystems are interconnected.
 - Economic and environmental benefits.
 - Option/s:_____.
- 7.4. What are the different ecosystems in your area?
- Mudflat areas Mangrove forests Seagrass beds Coral reefs
 - Salt Marshes Lakes Lowland forests River
 - Cave
- 7.5. What are the characteristics of our Mangrove Forests
- Composed of trees and shrubs in salty coastal area
 - Has soft substrate
 - Prop roots, thick and waxy leaves
 - Others, specify_____.
- 7.6. Does the condition of our Mangrove Forests affects the source of food of various species like mollusks, crustaceans and fishes?
- Yes No Not aware
- 7.7. What are the importance of our Mangrove Forests?
- Natural breakwater Food source to many organisms
 - Provide refuge to organisms Others, specify_____.
- 7.8. What are the different factors/activities that affect our Mangrove Forest?
- Production of charcoal Logging
 - Fishing grounds Others, specify_____.
- 7.9. What are the characteristics of our Seagrass Beds
- Entirely immersed in seawater
 - Grow in shallow marine and brackish waters
 - Depth distribution limited by availability of light
 - Others, specify_____.
- 7.10. Does the condition of our Seagrass Beds affects directly affect fish productivity?
- Yes No Not aware
- 7.11. What are the importance of our Seagrass Beds?
- Maintenance of biodiversity: provide shelter and food for marine animals
 - Nursery grounds for fish and invertebrates

- Stabilize coastlines and absorb nutrients from runoff
- Others, specify_____.
- 7.12. What are the different factors/activities that affect our Seagrass Beds?
- Tree planting Accidents resulting to oil spills
- Boat docking Others, specify_____.
- 7.13. What are the characteristics of our Coral Reefs?
- Soft or hard Extensive or patchy
- Live, bleached or dead with algae Others, specify_____.
- 7.14. Does the condition of our Coral Reefs affects directly affect fish productivity?
- Yes No Not aware
- 7.15. What are the importance of our Coral Reefs?
- Habitat for fishes Recreation
- Reduce strong wave action Others, specify_____.
- 7.16. What are the different factors/activities that affect our Coral Reefs?
- Dynamite fishing Global warming
- Poaching Others, specify_____.
- 7.17. Do you know about ocean/marine pollution?
- Yes No Not aware
- 7.18. What are the sources of marine pollution?
- Runoff from sewage, deforestation, farming, and other land use.
- Sedimentation due to erosion from mining, farming and coastal dredging. \
- Pathogens from sewage and livestock.
- Ballast water
- Toxins (Heavy metals, radioactive substances, etc.)
- Oil from cars, heavy machinery, industry, other land-based sources.
- Plastics
- Noise produced by supertankers, other large vessels and machinery.
- Others, specify_____.
- 7.19. Do people directly contribute to ocean/marine pollution?
- Yes If yes, How?_____.
- No Not aware
- 7.20. Do you have idea about climate change?
- Yes No Not aware
- 7.21. For you what is climate change?
- Global warming
- Caused by human's use of fossil fuels, which releases carbon dioxide and other greenhouse gases into the air.

- Shifting weather patterns
- Coastal areas are vulnerable to sea level rise, warming of sea/oceans, intensified weather disturbances.
- Low lying coastal communities being highly vulnerable to sea level rise
- Extreme weather conditions such as drought and flooding can compromise terrestrial crops and pressure on coastal and marine resources.
- Ocean acidification

7.22. Do people directly contribute to climate change and its catastrophic effects?

- Yes No Not aware

B) Utilization

7.23. Mangrove forests resources, Is your household engages in mangrove harvest related activity?

- Yes No, if no go 7.24

7.24. Coral collection and mining, Is your household engages in mangrove harvest related activity?

- Yes No, if no go 7.25

7.25. Please describe current resource condition in following:

	Very good	Good	Neither	Bad	Very bad
Mangrove	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coral reefs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seagrass beds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beaches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Freshwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Upland forest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7.26. Perceived changes in marine resources. What differences do you see between the present and the past ten (10) years ago with regard to:

Change in:	Better now	Better years ago	No change	Why? (describe)
Fish size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fish abundance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Giant clam abundance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sea turtle abundance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Groupers abundance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Coral abundance and diversity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other organisms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

C) Attitude

((1)Strongly agree → Strongly disagree(5))	1	2	3	4	5
7.26. I feel the need to protect the various ecosystems because it affects my source of livelihood.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.27. I am always willing to help protect the various ecosystems by promoting sustainable use of biodiversity resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.28. It is every people in this country obligation and responsibility to protect our country's biodiversity and I have to find ways to do so starting in my area/community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.29. I want to show to my family, relatives and friends the ways to conserve and protect our biodiversity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.30. I decided to be more conscious of my actions so that I could contribute to increase resilience against the adverse impacts of climate change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.31. I will support and participate in local and national government efforts/programs in protecting our biodiversity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.32. I depend on people who are more knowledgeable in protecting our biodiversity because they know better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.33. I tend to disregard critical issues about our biodiversity because of lack of knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.24. I do not want to contribute to the country's biodiversity conservation activities because it is not my primary concern.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.25. I blame other people for floods and other calamities that happening because of their irresponsible actions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7.26. In the past six (6) months, have you been involved in activities led by the local government in your area?

- Regularly (once a month)
- Occasionally (at least once in the past six months)
- Never

7.27. If regularly or occasionally involved, why have you attended/participated?

- It is my obligation
- To learn updates and new information
- To clarify or ask questions
- Others, specify _____.

7.28. Which do you think are the top three (3) most effective media for spreading awareness about the status of marine environment in your country?

- Television
- Newspaper

- Radio
- Internet-Social media (Facebook, Instagram, Twitter, Youtube, etc.)
- Posters and brochures
- Key person from local officials
- Law enforcers
- Others, specify_____.

“Thank you for your time and cooperation”