ECOSYSTEM-APPROACH TO FISHERIES MANAGEMENT (EAFM)

SAN BERNARDINO STRAIT - TICAO PASS FISHERIES MANAGEMENT AREA

EAFM PLAN (2017- 2022)

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INTRODUCTION

This Ecosystem Approach to Fisheries Management (EAFM) Plan presents the vision, goals, objectives and integrated set of management actions for the San Bernardino Strait-Ticao Pass (SBS-TP) fisheries management area (FMA) for the period 2017-2022. The EAFM is a holistic approach to fisheries management that involves systems and decision-making processes that balance ecological well-being with human and societal well-being, within improved governance frameworks.

The plan is a product of a highly participatory process that involved key stakeholders from Allen, San Antonio, Lavezares, Capul, Biri, San Vicente, Prieto Diaz, Gubat, Barcelona, Bulusan, Sta. Magdalena, Matnog, Bulan, Pilar, Donsol and Pio Duran. The process is divided into three key events, lead and facilitated by the Bureau of Fisheries and Aquatic Resources as program implementer, with the assistance from the Ecosystems Improved for Sustainable Fisheries (ECOFISH) Project:

1. Workshop 1 – Overview and Start-up Tasks – October 2016, Tacloban City, Tacloban.
2. Workshop 2- Development of the draft EAFM Plan – January 30 – February 3, 2017, Calbayog, Northern Samar; validated on April 26, 2017, Sorsogon City.
3. Stakeholder Consultation – Validation and adoption of the EAFM Plan - by each LGU

The key stakeholders have given full commitment to implement this EAFM Plan in their FMA. The participating LGUs will be implementers of local government actions within their political jurisdictions, and as partners in the inter-LGU collaboration to implement the EAFM Plan in the entire FMA.

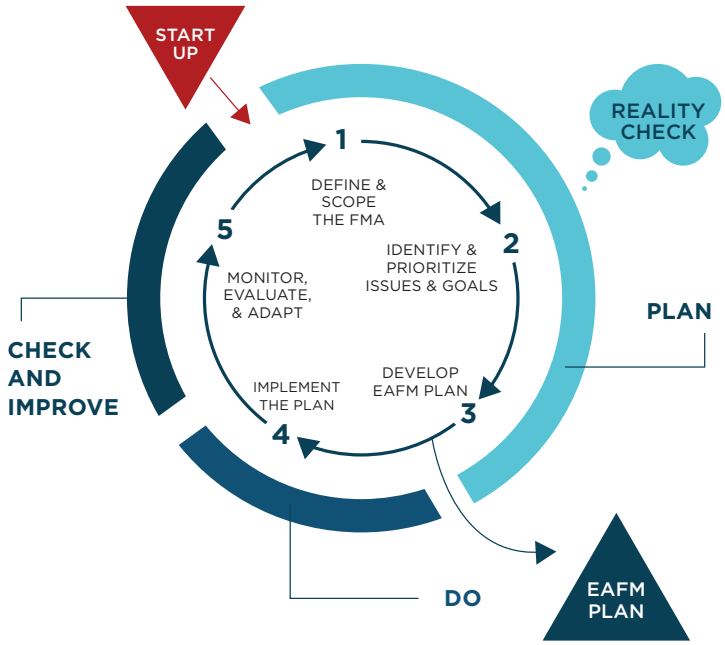


Figure 1. The 5 Steps of EAFM

Statement of General Principles

This plan is guided by the general principles of the Ecosystem Approach to Fisheries (EAF) (FAO Fisheries Department 2003; Garcia, Zerbi et al. 2003), particularly those that relate to:

Ecological impacts of fishing. The impacts of harvesting a fishery species from the system do not end with that particular resource alone. Non-target species or non-target sizes of the catch may still end up as by-catch in fishing operations, or get injured and die from contact with the fishing gear underwater (incidental mortality). Further, the reduction or loss of a fishery resource, either at the species or functional group level, may result in many indirect impacts throughout the system in the form of disrupted predator-prey (trophic) interactions that may lead to likely shifts in relative dominance of populations and eventual changes in overall system function, productivity, and bio-diversity. Fishing operations should thus be conducted in a manner that: reduces, if not eliminates by-catch and/or the harvest of non-target sizes (i.e. juveniles); minimizes incidental mortality; and avoids over-harvesting of fishery species or stocks to maintain the *"ecological relationships between harvested, dependent and related species"*, and thereby ensure resource productivity and sustainable fisheries harvests.

Impacts of fishing on the environment and vice-versa. Fisheries activities may impact the physical and oceanographic features of marine ecosystems that serve as habitats, feeding grounds, and spawning or nursery areas for the different fishery resources. Alterations to these features may cause a series of direct and indirect impacts to both target and non-targeted marine organisms such as disrupted life cycles, diminished food availability, and loss of shelter, thus leading to overall increased mortalities and reduced system productivity. Fishing operations should thus be conducted in a manner that minimizes their impacts on the physical and oceanographic features of marine ecosystems. Management measures should likewise be in place to safeguard critical component habitats and features of the marine environment against potentially harmful impacts of fishing.

The coastal and marine environment likewise hosts a multitude of activities and uses other than fishing, such as tourism and recreation, transport of people and

goods, habitation, etc., that may also impact the marine ecosystem and the system's productive capacity to support the fisheries. Policies should thus be in place to ensure the compatibility and appropriateness of the other activities and uses of the marine waters and minimize any of the potentially harmful impacts. This therefore necessitates a cross-sectoral approach in fisheries management.

Socio-economic impacts of fishing. A well-managed fishery is a productive fishery that sustainably provides for food, employment, and other elements that contribute to the overall social and economic well-being of coastal communities. Management policies and measures should therefore be in place to safeguard against activities that jeopardize the sustainability of the fisheries resources and their dependent livelihoods. Socio-economic approaches and incentives are moreover deemed necessary to complement the direct control and regulating mechanisms in fisheries management.

Finally, this plan adheres to the Integrated Coastal Resource Management (ICRM) framework that employs a holistic and interactive policy making approach to the planning and implementation process by facilitating the cooperation of different sectors and institutions at various levels of governance in addressing the complex management issues in the coastal areas, and by enabling the participation of various stakeholders in the planning, decision-making, and implementation of fisheries management programs and activities.

Scope and Relationship to Other Plans

This EAFM Plan specifically addresses the municipal fisheries (i.e. within 15 km from the shoreline) of San Bernardino Strait-Ticao Pass municipalities, namely Allen, San Antonio, Lavezares, Capul, Biri, San Vicente, Province of Northern Samar and; Prieto Diaz, Gubat, Barcelona, Bulusan, Sta. Magdalena, Matnog, Bulan, Pilar, Donsol and Pio Duran of the Province of Sorsogon. However, the management actions described herein are guided by and serve to complement prior provincial plans, management policy-frameworks and plans of existing alliances, and individual LGUs' coastal and fisheries management plans that may also seek to address management issues that affect adjacent waters and waters outside the municipal boundary limits. These include:

- Comprehensive Land Use Plans of respective LGUs
- Disaster Risk Reduction Management Plan of respective LGUs
- Marine Spatial Plan of San Bernardino Strait-Ticao Pass MKBA

SAN BERNARDINO STRAIT-TICAO PASS FISHERIES MANAGEMENT AREA EAFM PLAN (2017-2022)

I. VISION

"A sustainably managed and economically secured San Bernardino Strait-Ticao Pass FMA, upholding responsible fishing, ecologically-sound resource management and good governance through inter-LGU alliance, for resilient fishing communities."

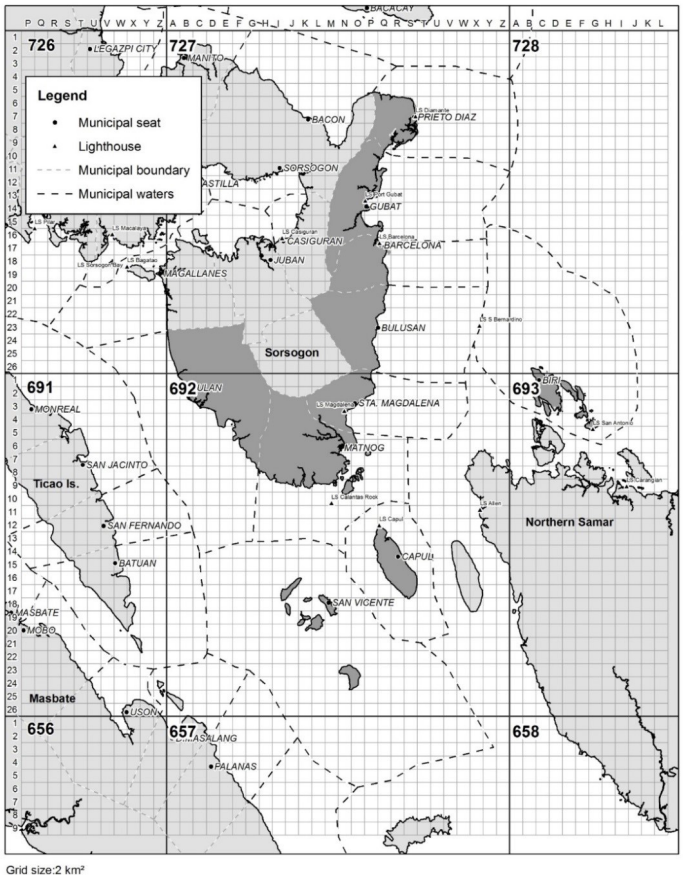
What the San Bernardino Strait – Ticao Pass FMA will look like 20 years from now…

Figure 2. Illustration of a common Vision for San Bernardino Strait – Ticao Pass FMA

II. SITE BACKGROUND

The San Bernardino Strait-Ticao Pass FMA covers three provinces (Albay, Sorsogon and Northern Samar) in two administrative regions (Region V and VIII). Facing the San Bernandino Strait are the municipalities of Matnog, Santa Magdalena, Bulusan, Barcelona, Gubat, Prieto Diaz (Sorsogon), Capul, San Antonio, Biri, Allen and Lavezares (Northern Samar); while the municipalities of Pio Duran (Albay) Donsol, Pilar, Magallanes, Bulan (Sorsogon) and San Vicente, Northern Samar are adjacent to the Ticao Pass..

Figure 3. V-shaped San Bernardino Strait (latitude 12°35'13" N, longitude 124°13'54"E)-
Ticao Pass (lat 12°38'8" N, 123°48'12" E) corridor



Biophysical & Socio-economic Setting

Important nearshore habitats that are present in the SBS-TP FMA include mangrove forests, seagrass beds and coral reefs. Majority of the coastal population engage in agriculture and fishing. Some fishers also engage in alternative and/or supplementary livelihoods including farming (rice and coconut), vending, manual labor, public utility transportation driver, and livelihoods based on marine resources (e.g., culture of bangus, seaweed, crabs, siganids, groupers and lobsters). In the municipality of Donsol, a popular destination for whale shark watching, coastal communities are also involved in ecotourism activities.

In Sorsogon, about 431,483 people occupy the coastline, with 20,102 registered municipal fishers. Bulan has the highest population (100,076) and number of registered municipal fisherfolk (4,843), and is the major fish landing site. Matnog has an important seaport that connects Bicol and Samar navigationally. Pilar also serves as gateway to the southern island province of Masbate.

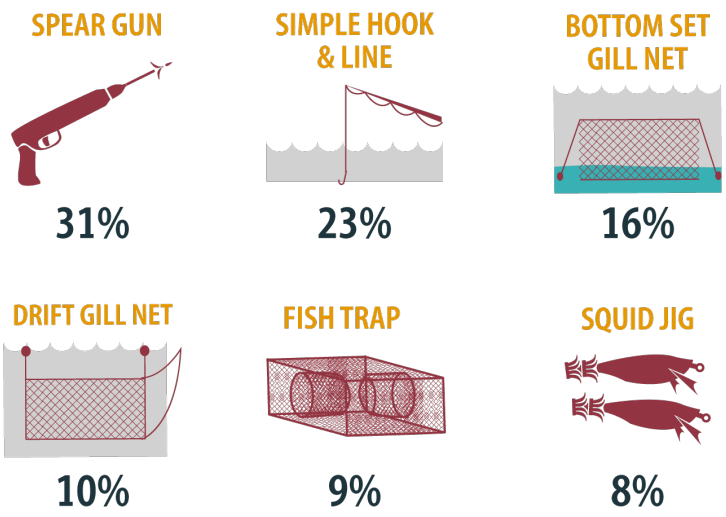
Sardinella lemuru, also known locally as "lawlaw", is one of the most important species found in San Bernardino Strait and Ticao Pass. In Bulan Fish Port, this species has the largest volume among the fish landings recorded by the Philippine Ports Authority. (Value Chain Analysis for Sardines in Ticao Pass-San Bernardino Strait-Lagonoy Gulf MKBA, 2014). The municipalities with the highest dependency on fishery resources are Matnog, Donsol, Barcelona, Sta. Magdalena and San Vicente.

Fisheries Status

There are 20,102 municipal and 1,610 commercial fishers plying the waters around the SBS-TP FMA. Bulan has the highest number of fishers at about 6,000 followed by Donsol at 2,500. The dominant types of gear used for fishing vary among the different municipalities.

Given the different geographic locations of the fishing grounds, catch compositions vary. Pelagic fishes (e.g. roundscads, sardines, and mackerel) are generally dominant, except for the coastal towns facing San Bernardino Strait (Prieto Diaz, Gubat, Barcelona, Bulusan, and Sta. Magdalena), which have more demersals (e.g. rabbitfishes) and some pelagics such as mackerel and scads. Mean fish production is highest in Bulan (10,000 MT) where catches are mainly sardines, Indian mackerels, and scads.

Figure 4. Top gear and used in 2015.



The catch per unit effort (CPUE) of the common fishing gear types operated in SBS-TP is presented in Table 1. Fishing gears that target the small pelagics and schooling pelagic fishes provide the highest yields.

Table 1 Comparison of Catch per unit effort (kg/day) of fishing gears monitored in selected landing sites in the San Bernardino Strait-Ticao Pass FMA during the fisheries baseline assessment conducted in 2013 and 2015

	Gear Used	CPUE (2013)	CPUE (2015)
1	Bottom set gillnet	18.09	20.01
2	Bottom set longline	10.00	17.42
3	Crab gillnet	5.29	4.47
4	Crab pot		4.12
5	Drift gillnet	39.57	14.61
6	Drive-in gillnet		6.00
7	Filter net		1.00
8	Fish jig		3.52
9	Fish trap	3.83	6.43
10	Gleaning		2.90
11	Handspear	3.26	3.85
12	Hook and line with float		4.52
13	Multiple handline	4.75	2.38
14	Octopus jig		3.59
15	Round haul seine	25.20	
16	Scoopnet	14.22	4.42
17	Set gillnet for rays		67.50
18	Set gillnet with plunger		3.14
19	Simple hook and line	9.71	5.79
20	Spear with compressor		15.01
21	Squid jig	1.24	3.75
22	Surface set longline		50.00
23	Trammel net		4.88
24	Troll line		7.07

Below is a table that shows the perception of the stakeholders of San Bernardino Strait-Ticao Pass on fisheries. 91% of these people believe that fishes being caught now is lesser than that of how much fishers get 20 years ago, while 50% and 41% agree that more juvenile species and low-value species, respectively are fished today. Conflict among fishers due to competition and resource use has also increased compared to 20 years ago.

Table 2. Perception of Stakeholders on the Status of Fisheries in Year 2017 in comparison to 1997

	Fish catch and fishing effort (compared to 20 years ago)	Much Less/ Smaller	About the Same	Much More/ Bigger
1	Fish catch (kilos per day of fishing)	91%	5%	5%
2	Sizes of fish being caught	59%	36%	5%
3	Proportion of high quality fish (grouper/snapper) caught compared to overall catch	68%	27%	0%
4	Availability/affordability of high quality fish in the local market	82%	14%	5%
5	Proportion in catch/sale of juvenile (immature) fish	36%	9%	50%
6	Proportion of catch of lower-value fishery species	27%	18%	41%
7	Abundance of invertebrates (e.g. crabs, shrimp, squids) in the catch	86%	5%	9%
8	Proportion sale and consumption of non-traditional food fish species	23%	5%	36%
9	Shell, invertebrates (sea cucumber, etc) gathered/collected: Note dominant species collected	64%	9%	14%
10	Number of hours to catch fish (per day)	14%	27%	59%
11	Travelling distances to fishing grounds to catch fish (per trip)	23%	32%	55%
12	Efficiency of fishing gear used (more catch-kilos-per trip)	50%	23%	14%
13	Conflicts among competing fishers (municipal vs commercial: local vs foreign)	23%	23%	50%
14	Conflicts among fishers and other coastal and marine resource users, e.g. for coastal development, tourism, transportation, etc.	14%	27%	55%
15	Number of days not able to fish due to bad weather/unsafe fishing conditions	0%	36%	64%

The price of fish in the market and from the fisher both increased compared to 20 years ago. But 77% stakeholders say that income from fishing is not enough to fund household needs. There were 64% who believe that there are available alternative sources of income aside from fishing. IN terms of access to basic services, the top services available in the FMA LGUs are schools, social welfare, health center and disaster prevention mechanism.

Table 3. Perception of Stakeholders on the Status of Socio Economics in Year 2017 in comparison to 1997

	Socio Economic Condition of Fishers (compared to 20 years ago)	Yes	No	Remarks
1	Increase in price of fish (buying from fishers)	86%	14%	
2	Increase in price of fish in the market	95%	5%	
3	Increase profit from fishing livelihood-consider profit from value adding (fish processing)	50%	23%	27%neutral
4	Income from fishing enough for daily household needs?	18%	77%	5% neutral
5	Increase in number of fishers in the community	86%	14%	
6	Increase in number of people moving to fishing from other livelihood?	23%	59%	18% neutral
7	Children engage in fishing (as fish workers, other than to help family)	50%	50%	
8	Aspiration (positive attitude) about having fishing as ean of livelihood for their children in the future	27%	68%	5% neutral
9	Displacement form settlement area and/or fishing ground?	59%	23%	18% neutral
10	Available reliable sources of income other than fishing?	64%	14%	22% neutral
11	Women involve in fishing livelihood	77%	9%	14% neutral
12	Sense of pride in carrying out fishing as a means of livelihood (Alt: Sense of pride in being a fisher).	64%	23%	13% neutral
13	Access to basic services			
	Health Center	68%	0%	32% neutral
	School (Elementary, High School)	77%	0%	23% neutral
	Social Welfare (MSWD)	68%	5%	27% neutral
	Affordable Credit (Pautang)	55%	23%	22% neutral
	Housing	23%	36%	41% neutral
	Disaster warning/prevention/response	68%	0%	32% neutral
14	Availability of means of communication with other fishers and/or traders	91%	9%	

Distribution of Benefits from Resource Use

ECOFISH conducted value chain study of sardines in San Bernardino Strait-Ticao Pass. The diagram shows the profit computed for every player in the sardine value chain. It shows that the fishers only get Php10 to Php16 per kilogram. Primary buyers acquire Php13 to Php16 profit. Secondary buyers' profit range from Php19 to Php21. It is noted that the smoked fish retailers get the second highest profit of Php53, next to the processor which makes Php58/kg. The local retailers' profit on the other hand, varies from place to place.

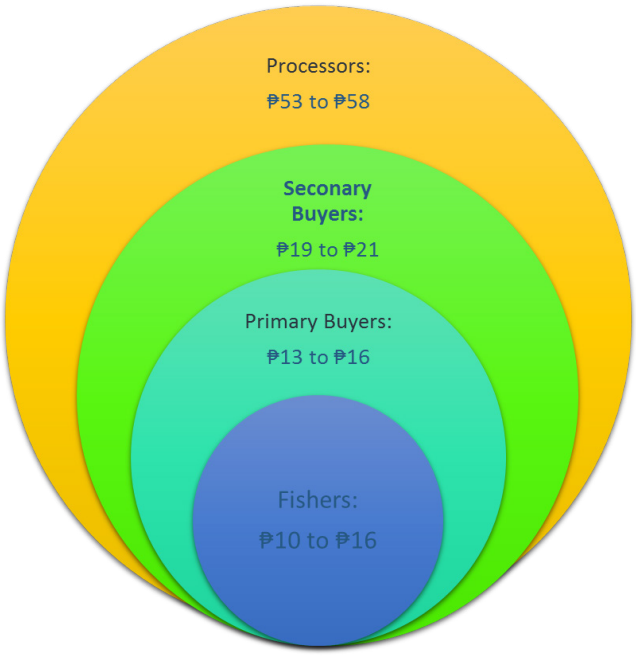


Figure 4

Management Status

Fisheries management in the SBS-TP FMA depends on the capacity of the municipal or city local government unit (LGU). Each LGU has been carrying out management strategies on their coastal resources through various mechanisms as mandated by the Local Government Code. These are specified in either of the following: Coastal Resource Management Plan, Fisheries Management Plan, and Marine Protected Area (MPA) Management Plan. However, these plans haven't been approved in all LGUs except Bulan. A Municipal/Barangay Fisheries and Aquatic Resources Management Council (MFARMC/BFARMC) and Fishery Law Enforcement team is available in all 16 municipalities. There are 11 MPAs in the SBS-TP FMA with a total area of about 1,100 hectares. The largest MPA in the area, Butag Fish Sanctuary and Marine Reserve (350 ha), is in Bulan. However, not all MPAs have a long-term management plan. The marine resources of SBS-TP MKBA would be better protected if the MPAs were managed under an MPA network rather than individually.

III. MAJOR ISSUES AND PROBLEMS

The stakeholders identified several issues and problems related to coastal use and management. These were then categorized into 4 issue cluster: 1. (1) Habitat Destruction, (2) Poverty, (3) Illegal Fishing, and (4) Weak Enforcement.

Habitat Destruction

Coastal habitat destruction is a result of several factors, one of which is due to anthropogenic stressors. Specific activities that impact the coastal habitats and environments include the mangrove conversion to other uses, coral quarrying, kaingin, solid

Figure 5. Prioritization of issues by stakeholders

(1) Habitat Destruction	☐ Conversion of mangroves to other uses ☐ Marine habitat destruction due to human activities ☐ Mangrove cutting ☐ Coral quarrying ☐ Lack of appreciation to ecosystem services

(1) Habitat Destruction	☐ Unabated quarrying of Corals and beach sand ☐ Kaingin ☐ Illegal occupancy ☐ Waste water treatment facility ☐ Coral destruction during abalone harvest ☐ Non-compliance to solid waste management ☐ Hazard Prone fishing community ☐ Red tide ☐ Lack of mechanism to sustain management of MPA ☐ Installation of underwater electric cable from Allen to Sta. Margarita ☐ Improper waste disposal by coastal household causing water pollution

Poverty

Poverty has remained a constant problem in most of the coastal areas in San Bernardino Stait-Ticao Pass. It is known that the fisherfolk is considered as the poorest of the poor sector. The stakeholders identified specific issues that could be addressed to somehow reduce poverty incidence among fiherfolks. Some of these issues are also related to habitat destruction which leads to decrease in human well-being.

(2) Poverty	☐ Lack of facilities in processing ☐ Lack of income/livelihood opportunities ☐ Fishing becoming an unattractive livelihood ☐ Lack of opportunity in education, livelihood, etc. ☐ Lack of source of Income and capability ☐ Low income of fisherfolk ☐ Majority of the communities depend on fisheries ☐ Hunger due to high fishing effort but low catch or no fish to catch ☐ Post-harvest losses ☐ Coral quarrying

(3) Illegal Fishing	☐ Presence of commercial fishers in municipal waters ☐ Implementation of national laws and brgy ordinances

(4) Weak Enforcement	☐ Lack of/Inadequate government support to law enforcement ☐ Lack of fishery law enforcement team ☐ Lack of laboratory facilities to detect poisonous substances ☐ Lack of awareness to rules and regulations ☐ Conflict in implementation of law

Illegal Fishing and Weak Enforcement

Illegal and other destructive fishing methods coupled with weak enforcement continue to contribute to habitat destruction and decline in fish catch in SBS-TP. The specific issues identified under illegal fishing actually correspond with the top 3 issues and threats enumerated during the Fishery Law Enforcement Assessment in 2016: use of fine mesh nets, noxious and compressor fishing and dynamite fishing.

(3) Illegal Fishing	☐ Encroachment of commercial Fishers in Ticao Pass ☐ Destructive Fishing ☐ Unregistered fisherfolk ☐ Fishing without permit ☐ Use of noxious substance ☐ Use of cyanide substance ☐ Illegal Fishing-Compressor/Dynamite ☐ Unregulated fishing ☐ Use of fine mesh nets and active fishing gears

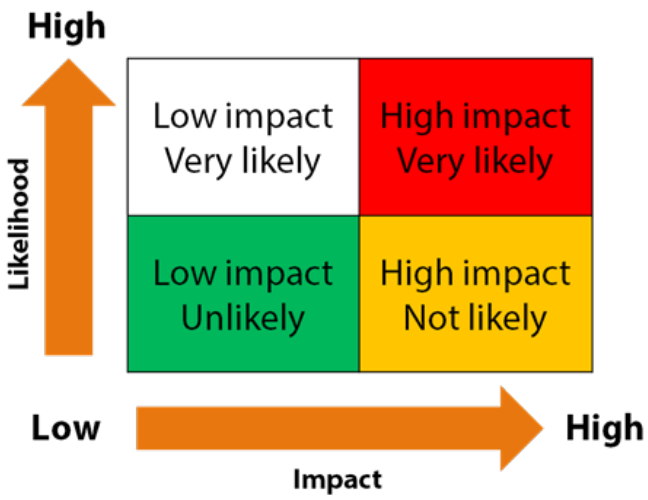


Figure 6. Diagram used in prioritizing issues

IV. GOALS

The major issues and problems faced by the SBS-TP FMA are categorized into four issue clusters, namely: (1) Habitat Destruction, (2) Poverty, (3) Illegal Fishing, and (4) Weak Enforcement.

Four goals are developed in response to these four issue clusters. These long-term goals are what need to be achieved so that the overall vision set for the FMA becomes a reality.

Goal 1: Effectively managed, conserved, sustained and protected marine and coastal habitats

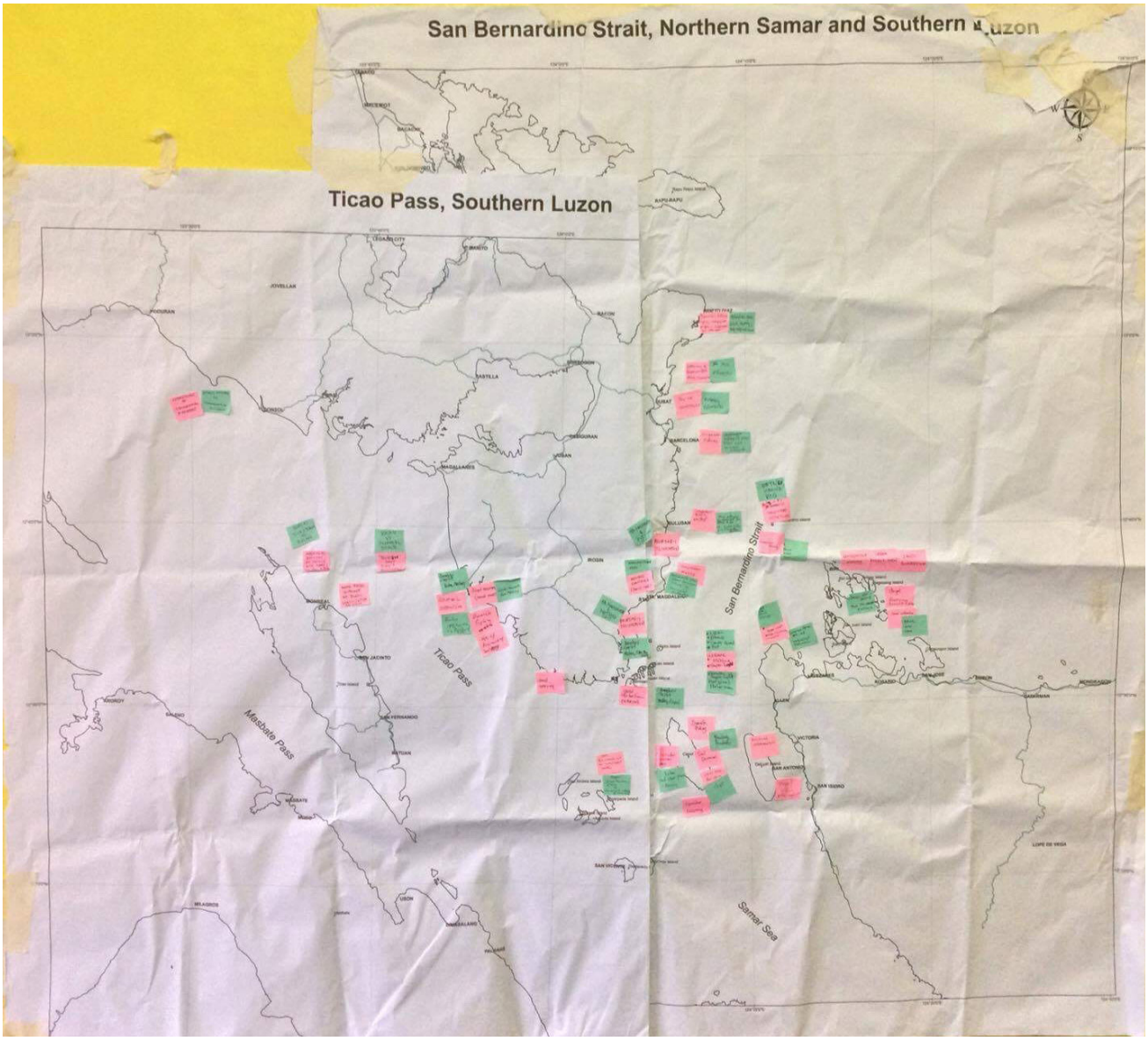
Goal 2: Economically secured fishers and fishing communities

Goal 3: Illegal fishing eliminated

Goal 4: Effective, consistent and well-funded enforcement of fishery and other related laws

Conflict Map

A conflict mapping was conducted to surface conflicts among resource use, users, etc. In San Bernardino Stait-Ticao Pass FMA, the common conflicts are among commercial fishers and municipal fishers, and fishers using destructive methods such as dynamite fishing, use of noxious substances, use of fine mesh nets and use of superlight. There are LGUs who have dispute over municipal water and land boundaries with neighboring LGUs.



V. OBJECTIVES, INDICATORS AND BENCHMARKS

Guided by the high priority issues identified, objectives under each of the four goals are defined.

These objectives state what will be achieved by management actions within a certain time period.

GOAL 1

Effectively managed, conserved, sustained and protected marine and coastal habitats

Objective 1: By 2022, improve marine habitats from fair to good condition in SBS-TP FMA through collaboration of LGUs, POs, Communities and other stakeholders

Objective 2: By 2022, establish at least one (1) MPA in each of the 16 municipalities of SBS-TP through collaboration of different stakeholders

Objective 3: By 2022, establish MPA network within SBS-TP FMA through LGU collaboration with other stakeholders

GOAL 2

Economically secured fishers and fishing communities

Objective 1: By 2022, bring up to above poverty threshold at least 50% of registered small-scale fisherfolk living below poverty line in SBS-TP FMA through diversification of profitable and sustainable fishing and non-fishing enterprise

GOAL 3

Illegal fishing eliminated by increasing awareness of laws and regulations, removing incentives for violations and providing options for livelihood

Objective 1: By 2022, All Commercial fishing vessels encroaching in municipal waters in Ticao Pass and San Bernardino Strait FMA are apprehended and prosecuted through strict compliance of fishery laws and active participation of law enforcement agency and decrease violations by 50% through 25% increase in enforcement operations by 16 NFLET and inter-LGU FLET

Objective 2: By 2022, formulate regulation to improve fisheries species SBS-TP FMA

Objective 3: By 2022, all LGUs in Ticao Pass and San Bernardino Strait will conduct IEC to create awareness of fishery laws related to fine mesh nets, compressor, dynamite and use of noxious substances

Objective 4: By 2022, develop strategies on fisheries management to improve fisheries protection in SBS-TP

Objective 5: By 2022, all CFV encroaching in municipal waters of SBS-TP FMA are apprehended and prosecuted through strict compliance of fishing laws and active participation of law enforcement agency and decrease violation by 50% through 25% increase in enforcement operations

GOAL 4

Effective, consistent and well-funded enforcement of fishery and other related laws

Objective 1: By 2022, increase law enforcement fund by 50% in 9 out of 16 LGUs in San Bernardino Ticao Pass FMA through local legislation, NGO Donation and National Government subsidy

Objective 2: By 2022, update local fishery ordinances to make it consistent with national laws by 100% in San Bernardino Strait-Ticao Pass FMA site

Objective 3: By 2022, Strengthen institutional arrangement in 15 out of 16 LGUs within SBS-TP FMA

INDICATORS and **BENCHMARKS** are set for each objective to measure management performance to determine if the objectives are being achieved.

GOAL 1

Effectively managed, conserved, sustained and protected marine and coastal habitats

Objective 1: By 2022, improve marine habitats from fair to good condition in SBS-TP FMA through collaboration of LGUs, POs, Communities and other stakeholders

Indicators	Benchmark
☐ Actual mangrove area rehabilitated ☐ Number of POs involved in mangrove reforestation ☐ % of the actual mangrove cover rehabilitated ☐ Coral area rehabilitated ☐ Number of PCRA conducted ☐ Number of consultation, meetings, forums, FGDs and workshop conducted ☐ Number of bantay dagat capacitated and deputized ☐ No. of participants in training ☐ No. of IEC conducted ☐ Number of monitoring activities conducted	Target : 3750 ha of mangrove area rehabilitated Limit =3,600 ha Baseline = 3000 ha Target: Fair to Good Coral Cover Limit: Fair Coral Cover Baseline: Poor Coral Cover

Objective 2: By 2022, establish at least one (1) MPA in each of the 16 municipalities of SBS-TP through collaboration of different stakeholders

Indicators	Benchmark
☐ Number of Fish sanctuary established ☐ Agencies and POs collaborated ☐ Number of consultation, meetings, forums, FGDs and workshop conducted ☐ Number of habitat assessment/ PCRA conducted ☐ Number of bantay dagat capacitated and deputized ☐ Number of participants in training ☐ Number of law enforcement team created ☐ Number of IEC conducted ☐ Number of municipalities with MPA ☐ Number of monitoring activities conducted	Target: 16 Fish sanctuaries/ MPA per LGU Limit: 16 FS/MPA Baseline: 1 MPA

Objective 3: By 2022, establish MPA network within SBS-TP FMA through LGU collaboration with other stakeholders

Indicators	Benchmark
☐ Agencies and POs collaborated ☐ Number of consultation, meetings, forums, FGDs and workshop conducted ☐ Number of habitat assessment/ PCRA conducted ☐ Number of bantay dagat	

Indicators	Benchmark
capacitated and deputized ☐ Number of participants in training ☐ Number of law enforcement team created ☐ Number of IEC conducted ☐ Number of monitoring activities conducted	

GOAL 2

Economically-secured fishers and fishing communities

Objective 1: By 2022, bring up to above poverty threshold at least 50% of registered small-scale fisherfolk living below poverty line in SBS-TP FMA through diversification of profitable and sustainable fishing and non-fishing enterprise

Indicators	Benchmark
☐ No. of fishing households brought above poverty threshold availing from diversified, profitable and sustainable fishing and non-fishing enterprise	Target: 50% of registered small scale fishing household above regional poverty threshold for Region 8 and Region 5 Baseline: No. of small scale fishing families (household) below regional poverty line/ threshold
☐ Number of fishing households engaging in different types of fishing and non-fishing enterprise established	Target: 50% of registered fishing household living below poverty line and are engaged in different types of fishing and non- fishing enterprise established

GOAL 3

Illegal fishing eliminated by increasing awareness of laws and regulations, removing incentives for violations and providing options for livelihood

Objective 1: By 2022, All Commercial fishing vessels encroaching in municipal waters in Ticao Pass and San Bernardino Strait FMA are apprehended and prosecuted through strict compliance of fishery laws and active participation of law enforcement agency and decrease violations by 50% through 25% increase in enforcement operations by 18 NFLET and inter-LGU FLET

Indicators	Benchmark
☐ % of commercial fishing vessel encroaching in Ticao Pass and San Bernardino Strait apprehended and prosecuted	Baseline : 2007 Apprehension Report Target: 100%
☐ Number of law enforcement agencies, LGUs attended in PLECC meetings	Baseline: 12 member agencies of PLECC Target : 12
☐ Number of apprehensions	Target Year 1= 2 IEC Year 2-5 - annual

Objective 2: By 2022, formulate regulation to improve fisheries species SBS-TP FMA

Indicators	Benchmark
☐ Number of regulation formulated	Baseline: - Target: sapyaw
☐ Number of management plan formulated	Target: Padas/Kuyog/ and sardines

Objective 3: By 2022, all LGUs in Ticao Pass and San Bernardino Strait will conduct IEC to create awareness of fishery laws related to fine mesh nets, compressor, dynamite and use of noxious substances

Indicators	Benchmark
☐ Number of IEC Conducted ☐ Number of fisherfolk attended	Target Year 1 – 2 IEC Year 2 to 5 – annual

GOAL 4

Effective, consistent and well-funded enforcement of fishery and other related laws

Objective 1: By 2022, increase law enforcement fund by 50% in 9 out of 16 LGUs in San Bernardino Ticao Pass FMA through local legislation, NGO Donation and National Government subsidy

Indicators	Benchmark
☐ % increase of LGU funds for enforcement ☐ %NGO donated funds for enforcement ☐ % NGA fund subsidy for enforcement ☐ Value of donated equipment/ ☐ Local appropriation ordinance	Target 50% increase in funds and equipment 2017 funding of 16 LGUs for enforcement 2016 Inventory of Donated equipment from NGOs and NGA with value 2016 Local Appropriation ordinance Target: increase in trainings and equipment of about 16 LGUs MFLET and inter LGU alliance – FLET and inter FLET created and operating Baseline: Trained MFLET as of 2016 Inventory of FLE Equipment of 16 MFLETS

Objective 2: By 2022, update local fishery ordinances to make it consistent with national laws by 100% in San Bernardino Strait-Ticao Pass FMA site

Indicators	Benchmark
☐ % of fishery ordinance of a municipality updated and consistent with national laws	Target: 100% fish ordinance of municipalities Limit: 16 municipalities with consistent ordinance Baseline 2016 Inventory of municipal ordinance

Objective 3: By 2022, Strengthen institutional arrangement in 15 out of 16 LGUs within SBS-TP FMA

Indicators	Benchmark
☐ Number of trainings/deputation ☐ Number of MFLET and inter LGU alliance ☐ Number of LGU with upgraded equipment	Number of trainings/deputation Number of MFLET and inter LGU alliance Number of LGU with upgraded equipment

VI. MANAGEMENT ACTIONS

Management Actions are activities and arrangements which the stakeholders commit to do in order to address the specific objectives for each goal.

GOAL 1

Effectively managed, conserved, sustained and protected marine and coastal habitats

Objective 1: By 2022, improve marine habitats from fair to good condition in SBS-TP FMA through collaboration of LGUs, POs, Communities and other stakeholders

To achieve this objective, the following management actions will be implemented:

- ☐ Habitat Assessment
- ☐ Mangrove Reforestation
- ☐ Reversion Of Abandoned/Illegal Fishpond
- ☐ Right Sizing

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Habitat Assessment	Coordination	BFAR, DENR, LGU	1st Q – year 1
	Identification of target area per LGU	BFAR, DENR, LGU, PO, FARMC, NGO	2nd - 3rd Q – year 1
	Formation of Composite Team	BFAR, DENR, MLGU, BLGU, PNP	2nd - 3rd Q – year 1
	*Corals *Mangrove *Sea grass	BFAR DENR DENR	2nd and 3rd Q- year 1
Prepare mangrove reforestation/rehabilitation plan/ Conduct mangrove reforestation	Survey mapping / planning of proposed planting area	BFAR, DENR, LGU	1st Q year 2 per LGU
	Acquisition of propagules/planting material	BFAR, DENR, LGU	2nd and 3rd Q year 2 per LGU
	Establishment of nurseries per LGU	LGU, FARMC, PO	3rd and 4th Q – year 1
	Actual implementation and planting	Stakeholders	

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Mile-stone
	Monitoring and evaluation	BFAR, DENR, LGU, PO	
Roll-out Right Sizing	Presentation of right sizing re-sults to select LGUs/LCEs	LGUs, OPAG, BFAR	2017
	Training on Right Sizing for LGUs without model	BFAR	2017-2018
	Conduct of Fish catch monitor-ing and gear inventory	BFAR	2017-2018
	Public Consultation	LGUs, FARMC, POs	2017
	Adaption through a resolution	LGUs	2017-2018
Develop Incentive System for Habitat Management and Law Enforcement	Create a TWG	LGUs, BFAR. OPAG	2018-2019
	Develop tools/criteria	LGUs, BFAR. OPAG	2018-2019
	Develop IEC materials	LGUs, BFAR. OPAG	2018-2019
	Launching of Incentive System	LGUs, BFAR. OPAG	2018-2019
	Roll-out	LGUs, BFAR. OPAG	2018-2019
Reversion of abandoned/ illegal fishpond	Creation of composite team to conduct survey, inventory and mapping	LGU to initiate with BFAR, DENR	1st Q of 3rd year
	Survey and inventory of all fishpond, abandoned and illegal fish ponds	LGU, DENR, BFAR, FARMC	2nd and 3rd Q of 3rd year
	Recommend action	DENR, BFAR	3rd to 5th year
	LGU to implement recommen-dations (LGU Prieto Diaz will pilot)	LGU	
	Planting of mangroves to acquired abandoned and illegal fishponds (LGU Prieto Diaz will pilot)	LGU	Depending upon resolution of case

Objective 2: By 2022, establish at least one (1) MPA in each of the 16 municipalities of SBS-TP through collaboration of different stakeholders

To achieve this objective, the following management actions will be implemented:

- ☐ Zoning of marine waters in SBS-TP (fishing, protection, navigational, ecotourism)
- ☐ Formulate MPA management plan
- ☐ Establish 3-4 MPA annually for FMA

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Zoning of marine waters in SBS-TP (fishing, protection, navigational, eco tourism)	Request delineated map from NAMRIA	LGU	1st Q of year 3
	CLWUP Consultation workshop	LGU, BFAR, DENR, HLURB, DOT stakeholders	2nd Q of year 3
	Consultation	Stakeholders	3rd Q of year 3
	Enactment of ordinance	SB	3rd Q of year 3
Establish 3-4 MPA annually for FMA	Identification of proposed MPA site	BFAR, LGU, FARMC	1st Q year 3
	Assessment of the proposed MPA/Delineation	BFAR, LGU, FARMC	2nd Q year 3
	Formulation of MPA management plan	BFAR, LGU, FARMC	2nd Q year 3
	Formulation of ordinance for establishment of MPA	SB, FARMC	2nd to 4th Q year 3
	Public Consultation	Stakeholders	1st Q year 4
	Review and approval of proposed establishment of MPA	SB, FARMC	2nd Q of year 4
	Publication	LGU	2nd Q of year 4
	Installation of marker and buoys	BFAR, LGU	3rd Q of year 4
	Installation of permanent monitoring blocks	BFAR, LGU	3rd Q of year 4
	Monitoring and evaluation	Composite team	Continuous
	Submission of reports	Composite team	Semi annual

Objective 3: By 2022, establish MPA network within SBS-TP FMA through LGU alliance/collaboration with other stakeholders

To achieve this objective, the following management actions will be implemented:

- ☐ Formulation of MPA network management plan
- ☐ Formulation of special ordinance

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Formulation of management plans for MPA networks	Creation of TWG	BFAR, DENR, LGU, NGO, Academe, CSO, PO	2nd Q of year 1
	Conduct meetings, workshops	TWG	3rd Q of year 1
	Preparation of Plan	TWG	4th Q of year 1
	Consultation to stakeholders	TWG with stakeholders	4th Q of year 1
Formulation of special ordinance	Committee hearings/consultation	SB with stakeholders	4th Q of year 1
	Public hearing	stakeholders	1st Q of year 2
	Review and approval of ordinance of SP		
	Passage of ordinance	SB-MFARMC	4th Q of year 2
	Publication	LGU	4th Q of year 2

GOAL 2

Economically secured fishers and fishing communities

Objective 1: By 2022, bring up to above poverty threshold at least 50% of registered small scale fisher living below poverty line in San Bernardino Strait-Ticao Pass FMA through diversification of profitable and sustainable fishing and non-fishing enterprise

To achieve this objective, the following management actions will be implemented:

- ☐ Development of eco-tourism among municipalities covered by the identified FMA
- ☐ Develop enterprises for surplus products (anchovy, sardines, seaweeds)
- ☐ Establish 3-4 MPA annually
- ☐ Strengthen support to seaweed farming
- ☐ Develop/Implement fishing gear swap program for small scale fishers
- ☐ Develop skills-based non fishing livelihood
- ☐ Impact Assessment

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Development of eco-tourism among municipalities covered by the identified FMA	Identification of sites	Tourism	Year 2017
	Consultation with community	LGU	Year 2017
	Coordinate with tourism officer for every LGU in tourism planning	SPPI/LGU	Year 2017-2018
	Meeting with LGUs with the existing tourism destination	LGU	2018
	Create a tourism circuit with those LGUs	LGU	2018-2019
	Series of consultation/meeting	LGU	2018-2019
	Establishment of users fee through an ordinance	LGU	2018-2019
	Conduct training fisherfolk for tourism (tour guiding)	LGU	2018-2019
	Implementation	LGU, TESDA, DOT	2018-2019
Develop enterprises for surplus products (anchovy, sardines, seaweeds)	Prepare business plans for sardines, anchovy and seaweeds by products	LGU, BFAR, DTI, ATI	2018
	Presentation to fishers	LGU	2018
	Identification of beneficiaries	LGU	2018
	Training for relevant skills	LGU, BFAR, DTI, ATI	2018
	Establishment of infrastructure facilities (fish processing center, cold storage and fish landing centers	LGU, BFAR, PFDA, PPA	2018-2022
	Start of implementation		2018
Strengthen support to seaweed farming	Zoning of potential seaweed farming sites	LGU, SPPI, BFAR	2017
	Provision of material and seedling support (including non motorized boats)	BFAR	2017-2018
	Rehabilitation/ Upgrading of land-based seaweed nurseries	LGU, BFAR	2017-2018

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Mile-stone
	Expansion of sea-based seaweed nurseries	LGU, BFAR	2017-2018
Develop/Implement fishing gear swap program for small scale fishers	Prepare implementing guidelines Extract data from FISH-R to identify target fishers Implementation	LGU, BFAR LGU, BFAR	2017-2018 2017-2018
Develop skills-based non fishing livelihood	Select beneficiaries Develop concept paper and submit to TESDA, DTI, ATI Conduct of technical training	LGU LGU TESDA, DTI, ATI, BFAR	2017-2018 2017-2018 2017-2018
Impact assessment	Profiling of fishers before and after program implementation	LGU	2017-2022

GOAL 3

Illegal fishing eliminated by increasing awareness of laws and regulations, removing incentives for violations and providing options for livelihood

Objective 1: By 2022, decrease violations by 50% in SBS-TP FMA through 25% increase in enforcement operations by 16 MFLET and inter LGU-FLET

To achieve this objective, the following management actions will be implemented:

☐ Conduct Market Denial

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Mile-stone
Conduct Market Denial	Identify/Coordinate/ Organize a market denial task force Meeting with the group Conduct training on aquatic wildlife, enforcement officer FLEMO	LGU personnel, FARMC, PNP, BFAR personnel assigned in the area LGU personnel, FARMC, PNP, BFAR personnel assigned in the area LGU personnel, FARMC, PNP, BFAR personnel assigned in the area	June 2017 March 2017

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
	Designation of training of fish examiner	LGU personnel, FARMC, PNP, BFAR personnel assigned in the area	April 2017
	Conduct market visits	LGU personnel, FARMC, PNP, BFAR personnel assigned in the area	5 years
	Documentation and reporting	LGU personnel, FARMC, PNP, BFAR personnel assigned in the area	5 years

Objective 2: Develop strategic fisheries management to improve fisheries production in SBS-TP by 2022

To achieve this objective, the following management actions will be implemented:

☐ Regulation on the use of sapyaw

☐ Adopt and enhance closed season for kuyog/siganids and management plan formulation for sardines

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Regulation on the use of sapyaw	Enactment of fishery ordinance with regulation of sapyaw Consultation meeting Drafting Public hearing Adoption and approval Implementation Documentation IEC	BFAR-LGU; SBS-TP Task Force	2017-2022
Adopt and enhance closed season for kuyog/siganids and management plan formulation for sardines	Enactment of fishery ordinance on the regulation of kuyog/siganids (closed season) Consultation meeting Drafting Public Hearing	BFAR, LGU, SBS-TP, Task Force, Alliance, ECOFISH, NGO, CSO, FARMC	2017-2022

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
	Adoption and approval IEC Implementation Documentation		

Objective 3: By 2022, all LGU in SBS-TP FMA will conduct IEC to create awareness on fishery laws related to fine meshed net, compressor, dynamite and use of obnoxious substances

To achieve this objective, the following management action will be implemented:
☐ IEC on habitat management, resource conservation, laws and regulation

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
IEC on habitat management, resource conservation, laws and regulation	Consultation with stakeholders Fund sourcing Designing of IEC materials in different dialects Procurement Implementation and distribution Tri-media	SBS-TP Inter LGU alliance and Academe	6 months / 5 years

Objective 4: By 2022, develop strategies on fisheries management to improve fisheries protection in SBS-TP

To achieve this objective, the following management action will be implemented:
☐ Adoption of color coding and marking of fishing vessel

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Adoption of color coding and marking of fishing vessel	Review process of FISHR and BOATR Regulations through BFAR, and LGU	LGU, MAO, PNP, Bantay dagat LGU	5 years

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
	Amendment of national laws	SB, MBRS	
	Draft ordinance		
	Refer to proper committee (CRM)	SB, MBRS, MAO	
	Committee hearing	SB, MBRS, MAO	
	Public consultations for fisherfolk	Brgy Council, SB, MAO	
	SB for approval of ordinance	SB, MBRS	
	SP for review	SP, SB, MAO, BFAR	
	Journal issues	SP,SB,LGU	

Objective 5: By 2022, all CFV encroaching in municipal waters of SBS-TP FMA are apprehended and prosecuted through strict compliance of fishing laws and active participation of law enforcement agency and decrease violation by 50% through 25% increase in enforcement operations

To achieve this objective, the following management actions will be implemented:

- ☐ Conduct seaborne patrolling operations
- ☐ Market denial
- ☐ Adopt color coding scheme across municipalities of SBS-TP for fishing boats

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Conduct seaborne patrolling operations	Identify agency to be included in the task force	BFAR	Feb to April 2017
	Inform and coordinate the agencies	ECOFISH/BFAR	May to July 2017
	Schedule meeting for creation of task force	ECOFISH/BFAR	August 2017
	Assign fund for logistics	LGU	August to Oct 2017
	Team building activity for the assigned personnel in the task force	ECOFISH	Oct to Dec 2017

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Mile-stone
	Conduct training (FLET) for the assigned personnel in the task force	ECOFISH	Oct to Dec 2017
	Conduct seaborne operation	Inter agency task force (BFAR,PNP, PCG,LGU)	Dec 2017 to 2022
Market denial	Identify agency to be included in the task force	BFAR	Feb to March 2017
	Inform and coordinate the agencies	ECOFIsH/BFAR	April to June 2017
	Schedule meeting for creation of task force	BFAR/ECOFISH	July to August 2017
	Assign fund for logistics	ECOFISH/LGU	Aug to Sept 2017
	Training and team building for the team	ECOFISH/LGU	Sept to Nov 2017
	Meeting for the conduct of operation	ECOFISH/BFAR	Nov to Dec 2017
	Conduct market denial	Composite team	Dec 2017 to 2022
Adopt color coding scheme across municipalities of SBS-TP for fishing boats	Inform the LGU to have a meeting re: color coding	ECOFISH	Feb to Mar 2017
	Review ordinance re: color coding scheme	SB/LGU/ECOFISH/BFAR	April to May 2017
	Prepare ordinance for LGU with existing color coding scheme	LGU/BFAR	April to May 2017
	Identify fishing boats for commercial and municipal fisheries	LGU	June to Aug 2017
	Consultation meeting	LGU/BFAR	Sept to Dec 2017
	Implement ordinance	LGU	Dec 2017-2022

GOAL 4

Effective, consistent and well- funded enforcement of fishery and other related laws

Objective 1: By 2022, increase law enforcement fund by 50% in 9 out of 16 LGUs in San Bernardino Strait-Ticao Pass FMA through local legislation, NGO donation and national government subsidy

To achieve this objective, the following management actions will be implemented:

☐ Lobby for increase in FLE funds

☐ Leverage fund activities on FLE for NGA/NGO/Private sector support partnership

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Lobby for increase in FLE funds	Present FMA Plan to SB and SP	MAO, MFARMC OPAs/PENRO	Q2 2017
	Prepare work and financial plan	OPAs/MAO	Q2 2017
	Follow up with SB Chair on Fisheries	MAO/FARMC	Q2-Q3 2017
	Approval of ordinance	SB	Q3 2017
	Inclusion of FLE in Annual Investment Program	OPAs/PENRO/MAO	Q3 2017
	Implement/Utilize Fund	MAO	2018
	Evaluate Use of Funds and Accomplishment	MAO/MPDO	Q1 2019
Leverage fund activities on FLE for NGA/NGO/Private sector support partnership	Identify potential partners	MAO/MFARMC	Q1 2017
	Present FMA Plan and Work and Financial Plan	OPAs/MAO/MPDO/ CENRO/MENRO/ BFAR/PAMB	Q2 2017
	Follow up potential partnership	PENRO/MFARMC/ CENRO/MENRO/ BFAR/PAMB	Q2 2017
	Execute MOA/Pass resolution (Template for resolution and Distribution to SB of TP-SBS)	LCE/SB/BFAR/ DENR/PAMB	Q3 2017
	Implement partnership activity	MAO and partner agencies, MFARMC	Q3 Q4 2017
	Monitor partnership activities	MAO and partner agencies, MFARMC	2018

Objective 2: By 2022, update local fishery ordinance to make it consistent with national laws by 100% in SBS-TP FMA

To achieve this objective, the following management actions will be implemented:

☐ Harmonize MFOs to make consistent across FMA

☐ Delineate municipal water across FMA

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Harmonize MFOs to make consistent across FMA	Coordinate with LGUs for proposed harmonization of MFO	MAO/SB, Chairman Committee on Agriculture and Fisheries/ MFARMC/ BFAR/DENR	Q4 2017 to Q1 2018
	Convene LGUs for proposed harmonization	MAO/OPAg/ BFAR/Provincial Government through PAO/DENR	Q3 2017
	Conduct workshop to draft template ordinance	MAO/OPAg/BFAR/ PENRO/SB for Fisheries	Q4 2017
	Present to SB the draft ordinance	MAO/MFARMC	Q1 2018
	Conduct public hearing	SB/BFAR/DENR/ MAO/MFARMC/PAO	Q1 2018
	Approve and publish ordinance	SB	Q4 2018-Q3 2019
	Conduct IEC	SB/MAO	Q3 2019
Delineate municipal water across FMA	Request NAMRIA hydrography branch to delineate municipal waters	LCE/MAO/NAMRIA	Q3 2017
	Conduct orientation on municipal water delineation	MAO/PENRO/NAMRIA	Q4 2017
	Evaluate preliminary map from NAMRIA with neighbouring LGUs upon receipt of map from NAMRIA	MAO/MPDO/SB Chairman Committee on Agriculture and Fisheries/NAMRIA	Q4 2017
	Submit evaluated map with signatures of LCEs of LGU and neighbouring LGUs to NAMRIA	LCE/MAO/MPDO/SB/ MFARMC	Q1 2018
	Pass ordinance upon receipt of NAMRIA map	SB/MFARMC	Q1 2018

Objective 2: By 2022, strengthen institutional arrangement in 15 out of 16 LGUs within SBS-TP FMA

To achieve this objective, the following management actions will be implemented:

☐ Create institutional arrangements for FMA/Inter LGU cooperation

☐ Strengthen FLE Teams/Capabilities

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Milestone
Create institutional arrangements for FMA/Inter LGU cooperation			
a) Inter LGU alliance (Ticao/ San Bernardino/N. Samar)	Convene LGUs for Proposed alliance	PG-ENRO, BFAR, OPAG, DENR, MAO	Q2 2018
	Present to LCE/SB the proposed alliance	MAO, MFARMC	Q2 2018
	Draft/Negotiate agreement	MAO/SB, BFAR, DENR	Q3 Q4 2017
	Sign Agreement with resolution, approving MOA and authorizing Mayor	LCE/SB, MFARMC	Q4 2018
	Implement/conduct meeting	Alliance member with partner agencies	Q4 2018 -2022
	Create Interim Coordinating Committee	Alliance member with partner agencies	Q4 2018 -2022
b) SBS-TP Coordinating Committee	Convene 3 alliance representation	Alliance member with partner agencies	Q1 2019 -2022
Strengthen FLE Teams/Capabilities			
a) Training of MFLET/ Bantay Dagat	Design training activity/module	MAO/BFAR	Q4 2017-Q2 2018
	Conduct training	MAO,BFAR,PNP Coast Guard	Q4 2017-Q2 2018-Q3 2018
	Deputize	LCE	Q3 2018
	Provide ID, uniform, Insurance, honorarium	SB/LCE	Yearly
	Deploy	MAO, LCE	Q2 Q3 2017
	Evaluate performance	MAO, LCE	Q2 Q3 2017
b) Upgrade and provide gear	Request to LCE/SB/NGA/NGO	MAO, MFRAMC	Q3 2017
	Follow up	MAO, MFRAMC	Q3 2017
	Prepare acquisition/donation procurement	MAO	Q4 2017

Management Actions	Specific Tasks (What needs to be done)	Responsible Agency	Timelines and Mile-stone
	Allocate fund for MOOE	MAO	Q4 2017
	Develop guidelines for use of gears	MAO/MFLET/ Bantay Dagat	Q3 Q4 2017
c) Upgrade and provide patrol boat	Request BFAR /Congress	MAO/MFARMC	2018
	Follow up and Preparation	MAO/MFARMC	Q2 2017
	Allocate	MAO	Q2-Q3 2017
	Develop guidelines	MAO/MFLET/ Bantay Dagat	Q4 2017
d) Fish examiner	Identification/Recruitment	MAO, LCE	Q4 2017
	Train	MAO, LCE, BFAR	Q4 2017
	Deputize	MAO/BFAR	Q4 2017
	Deploy	MAO/BFAR	Q4 2017
e) Development of operation-al plan for enforcement team or FLEMO	Convene with MFLET	OPAG/BFAR	Q3 to Q4 2017
	Conduct writeshop on Opera-tional development	OPAG/BFAR	Q4 2017
	Adopt and Implement	MAO, MFLET	

VII. SUSTAINABLE FINANCING

The following are existing and potential sources of funds to finance management actions. A separate IFRM Business Plan contains the detailed activities of the management actions and the corresponding costs.

Existing	Potential
IRA – Fines, Penalties, Charges (Donsol)	ODA
BUB (Bulan, Magdalena, Matnog)	NGOs
Docking Fee (Bulan)	Resource Extraction/Concessions
Cottage, Entrance , Lodging Fee (Bulan)	Tourism
NGA- GAA from BFAR, DENR	UNICEF
Local Revenue	ADB
Business permits	USAID
Registration and licensing fees	Donation from foreign corporation
Fish port / community park fees	User fee
User Fees	Fishing gear license
LDRRMP	Auxiliary invoice
Boat Registration fee	Berthing fee
Auxiliary Invoice	Vehicle Entrance Fee
Taxes	
Fishing gear and license	
Environmental fee	
Aquaculture permits	

VIII. IMPLEMENTATION PLAN AND COMMUNICATION STRATEGY

Throughout the five years of implementation, the results of the EAFM plan will be communicated to identified target audiences through various methods.

Target Audience: Fisherfolk Communities
Theme: How will the EAFM Plan improve the habitats and fisheries

Key messages	Communication Method	Timing
Overview of EAFM/Status of Coastal Habitats	FGD, Forum, Meetings in target sites (in local dialect)/ Mascot	After lunch 1-2 hrs
Importance of EAFM	Jingle re: EAFM, Local Radio Station	
EAFM Plan	IEC Materials, Pamphlets, komics, tarpaulin, billboard, brochures, slogan	Displayed in schools, brgy halls, multi purpose hall, LGU, ports

Target Audience: Fisherfolk Communities
Theme: How will the EAFM Plan address poverty

Key messages	Communication Method	Timing
Dagat ay pangalagaan para sa kinabukasan ng kabataan	Film showing, comics	Fisherfolk assembly, POs, monthly meeting
Huwag matakaw upang may law-law sa Ticao		
Dagat ay alagaan upang puno ang hapag kainan	Posters Radio Plugs	Foundation day/ Daily
Dagat ay alagaan tungo sa masaga-nang kinabukasan	Printed shirts	Fish conservation week / month of the ocean

Target Audience: LGUs
Theme: How will the EAFM Plan be address to mayors, sanggunian

Key messages	Communication Method	Timing
Sustainable fisheries management across FMA	print out of EAFM Plan	Available before presentation
Managing ecosystem together	Resource maps	Right after the print out of EAFM plan
EAFM Benefits/Financing Ecology for Economy	Dialogue with LCE./ SB Session	During SB Session

Target Audience: Partner agencies
Theme: How will the EAFM Plan be address to partners

Key messages	Communication Method	Timing
Introduce SBS-TP FMA Plan	Coordination, consultation, meetings, conference, orientation	ASAP
We planned, You fund, Together we work	Project Proposals	During legislative session
	MOA, MOU	During Committee hearings

IX. VALIDATION AND ADOPTION OF THE EAFM PLAN

Validation

A workshop was conducted on April 26, 2017 to check and validate the data provided by the stakeholders. This includes re-assessing the achievability of the management actions within the given timeframe.

Adoption of the IFMP

Options for the adoption of this Inter-LGU Fisheries Management Plan include a Provincial Resolution and resolutions from the inter-LGU alliances/management councils (inter-LGU level) and SB resolutions (LGU-level).

Organization and Management (Institutional Arrangements)

While the LGUs hold the primary responsibility for implementing the Plan within their respective municipalities and cities, sectoral policies and mandates remain within the relevant government offices and agencies at the provincial level. Oversight, coordination, and inter-LGU planning roles shall be undertaken by the provinces of Sorsogon and Northern Samar, respectively through the Office of the Provincial Agriculturist (OPA), Provincial Fisheries Office, and in partnership with Sorsogon Pacific Coast Alliance (SoPCA).

Financing the Plan

The individual management actions that are described in this Plan have corresponding budget estimates or suggested potential sources of funding. The details will feed into the IFRM Business Plan ofSan Bernardino Strait-Ticao Pass. The Business Plan intends to establish

a sustainable funding mechanism for the LGUs' planned activities.

Monitoring and Evaluation

Monitoring and Evaluation (M and E) should be an on-going process by which the impact of the implementation of this Inter-LGU Fisheries Management Plan and the priority fisheries management actions detailed herein can be examined. M and E is a key aspect in determining whether or not the management actions are successful, in determining what else needs to be done if the actions or aspects of the actions are viewed as unsuccessful in attaining their respective objectives, and in identifying the necessary modifications to the planned management actions and their implementation in order to make improvements. The specified indicators, benchmarks and targets that correspond to the respective objectives shall be used to monitor the management actions' performance and effectiveness. The LGUs at the local level and the OPA, PFO, and the alliance, who will provide guidance and support from both the provinces of Sorsogon and Northern Samar, are expected to conduct separate workshops (see Annex 6) to develop a monitoring and evaluation schedule using the specified benchmarks and indicators for the different fisheries management actions.

Below are examples of standard monitoring and evaluation mechanisms and tools by which the progress of implementation of the various components of the Plan and specified management actions can be measured. These are based on available training guides for M and E (see list below) and current M and E procedures for the LGUs (see ECOFISH LGU Start-up Guide, in prep.).

1) Governance: EAFM Benchmarks (ECOFISH 2014)

2) Marine Protected Areas (MPAs) and fish sanctuaries: bio-physical assessment and monitoring (Uychiaoco, Green et al. 2001), management evaluation (MPA Management Effectiveness Assessment Tool (MEAT) (available from the MPA Support Network)

3) Habitats monitoring: Participatory Coastal Resources Assessment (PCRA) (Walters, Maragos et al. 1998)

4) Fisheries monitoring: Fish catch assessment and monitoring (FISH 2005)

5) Socio-economic aspect of the fisheries: Socio-economic monitoring (Bunce and Pomeroy 2003; ECOFISH 2014)