



2016 Silago MPA Management Effectiveness Tool (MEAT¹) Survey Results (with summary results of Silago MPA biophysical surveys)

Submitted to Provincial Environment and Natural Resources Management Office (PENRMO) of Southern Leyte
by Ocean-action Resource Center (ORC)

(The MEAT and MPA biophysical surveys were conducted by ORC in coordination with the MLGU of Silago. This report contains surveys' key results in a simplified format. For more details, contact Grace Quiton-Domingo at gracequiton@gmail.com.)

Background and Objectives of MEAT

All five MPAs in Silago, namely Lagoma, Sudmon, Balagawan, Hingatungan and Mercedes, were evaluated using the Marine Protected Areas Management Effectiveness Assessment Tool (MPA MEAT).

MPA MEAT is a tool to measure MPA effectiveness that allows for allowing an objective evaluation of MPAs. It aims to assess MPA governance in terms of enforcement, implementation and maintenance of MPAs, which is not limited to physical management of the MPA but also includes direct and indirect uses, people and the systemic interaction between people and resources.

The MPA MEAT results are given in three ways: 1) through an overall score or rating, 2) by gauging management effectiveness level, and 3) by categorizing responses into management focus.

Table 1. Three Ways to Interpret MPA MEAT Results

Interpretations	Description
1. Overall score	<ul style="list-style-type: none"> - Measures the level of effort devoted to MPA management - Higher scores mean greater effort put into MPA management and can potentially increase MPA effectiveness
2. Management Effectiveness Level	<ul style="list-style-type: none"> - Incorporates significantly-important activities called “thresholds” that MPA management bodies must undertake to enable effective governance of an MPA - The following factors must be met in order to achieve a given Management Effectiveness Level: <ul style="list-style-type: none"> o Minimum number of years since establishment o Minimum overall score o All “threshold” questions satisfied for that Level and those before it
3. Management focus	<ul style="list-style-type: none"> - MPA management activities can be divided into key categories which help in improving effectiveness of MPAs - These are: Management plan, Management body, Legal instrument, Community participation, Financing, IEC activities, Enforcement, Monitoring, and Development - By grouping the questions into these categories, the MPA management body can gauge where its strengths and weaknesses lie and objectively identify areas for improvement

There are four different levels of MPA management, through which MPA effectiveness is determined, based on IUCN standards: Level 1 – establishment, Level 2—strengthened, Level 3—

¹ The MPA MEAT is a harmonized version of the MPA Report Guide of the Coastal Conservation and Education Foundation, Inc. (CCEF, White et al. 2004) as modified by the Philippine Environmental Governance Project 2 (EcoGov2), (Arceo et al. in prep), facilitated by the MPA Support Network (MSN) through the CTI (Coral Triangle Initiative) Support Partnership or CTSP. The MEAT e-form is available online.



sustained, and Level 4—institutionalized. Using MEAT as management measurement tool, MPA managers can determine the level of management effectiveness of their respective MPAs.

It is important to note, however that under this measurement, an MPA can be “excellent” in terms of overall score but may have passed only a Level 2 rating (MPA management is effectively *strengthened*), if the MPA has not passed all of threshold of Level 3.

Table 2. How to rate MPA management using MEAT

MPA Management Level based on minimum indicators	Number of items	Maximum achievable points	Minimum score to attain each level	The levels below are indicative names used to establish levels of performance
Level 1 – Established [Yr 1+]	17	27	20	MPA is established
Level 2— Strengthened [3 Yrs +]	9	15	11	MPA management is effectively strengthened
Level 3— Sustained [5 Yrs +]	11	21	16	MPA management is effectively sustained
Institutionalized [7 Yrs +]	11	21	16	MPA management is effectively institutionalized
TOTAL	48	84	23	

MPA rating based on total cumulative score:

Poor= <24 points

Good= 25 to 39 ;

Very Good= 40 to 61

Excellent=62 to 81

Along with MEAT self-evaluation questionnaire, the Community Perception Survey is also included in the MPA MEAT assessment. The Community Perception Survey is used to gauge the level of awareness of stakeholders, their perceived benefits from the MPA, their perception on the functionality of the management body and their willingness to support the MPA. Results of this perception survey may be used by the management body to adjust their community awareness programs and activities.



Methodology

The MPA MEAT survey was conducted in all five MPAs in Silago, Southern Leyte—Balagawan, Mercedes, Sudmon, Lagoma and Hingatungan, by ORC enumerators in coordination with the Municipal Office of Agriculture of the municipality of Silago.

Using the MEAT questionnaire (see appendix B), the researchers assisted the managing body of each MPA to conduct a self-evaluation of their MPA through a focus group discussion among the members of the MPA management body.

A community perception survey was then conducted afterwards. Using the community perception survey form (see appendix C), 10 key informants were interviewed for each MPA. Key informants were chosen based on the various sectors they represent, such as fisherfolk, farmers, women, and healthcare.

Summary of Findings

- Sudmon MPA is the only MPA in Silago that has passed the threshold of Level 1 (*Established*) and has moved on to Level 2 (*Strengthened*). The rest of the MPAs—Hingatungan, Lagoma, Mercedes and Balagawan—are still within Level 1.
- The four MPAs within Level 1 have “good” ratings, based on their cumulative points. Sudmon, however, has earned the “very good” rating.

Table 3. MPA Management Effectiveness Score

Barangay	MPA size (ha)	Class	No. of yrs	Level 1 Score	Level 2 Score	Level 3 Score	Level 4 Score	Overall Score (Total Cumulative Points)	Management Effectiveness Level	Rating based on Overall Score
Hingatungan	31.01	M,S, C	7	17	11	3	4	35	1	Good
Lagoma	40.1	M,S, C	15	16	12	3	1	32	1	Good
Sudmon	27.24	M,S, C	11	20	12	8	4	44	2	Very good
Mercedes	17.5	M,S, C	6	16	13	7	0	36	1	Good
Balagawan	8.25	M,S, C	5	9	12	7	2	30	1	Good

- All five management groups of MPAs have cited various issues that have made the establishment and enforcement of MPAs problematic; however, the general community perception towards the MPAs is positive.

Discussion of Key Results (per Management Focus)

According to the MPA management teams, the major management issues that they face are the following:

Management body

All MPAs are managed by the barangay councils. No separate MPA management council (whose sole responsibility is to manage and enforce the MPA) has been organized, or at least, the current barangay councils are unaware that any MPA management council was organized in the previous administration.



Management plan

All barangay council do not have MPA management plan. If there were any management plans done in the previous administration, the current barangay councils have not received any of those plans.

Legal instrument

All MPAs, except Lagoma, have copies of their barangay resolutions and the Unified Municipal Ordinance. However, the Unified Municipal Ordinance has not been clearly explained to the current barangay councils.

Community participation

For most MPAs, the establishment, especially during its initiation, lacked the consultation, information, and communication necessary for a strong participation of the community in the establishment of the MPAs. For example, the delineation of the MPA area was done mainly by the organizers (NGOs, GOs) or implementers, but the direct users and constituents were consulted minimally. As in the case of Lagoma, their MPA boundaries had been expanded to 40 hectares but no explanation was provided about the proper process and basis of this expansion.

Enforcement

- Most management groups feel that they have very little power over the enforcement of the MPAs. A few years ago, all Unified Municipal Ordinance for all MPAs in Silago was created, subsuming all MPA rules, regulations and conditions under this one standard ordinance. Since then, the management members feel that the process of the apprehension and the responsibilities of MPA management, were given over to the municipal government, thereby giving the barangay MPA managers little sense of ownership over their own MPAs. The barangay councils felt obliged to step back from the responsibilities. They felt that ultimately it is the the Municipal Government that makes the final decision, overriding the barangay's decisions and eroding the community-based nature of their MPAs.
- Weak coordination exists between municipal government and the barangay, particularly when it comes to apprehension and penalty of the violators. Roles and responsibilities of the Barangay LGU and the Municipal LGU remain unclear.
- Enforcement duties of barangay *tanod* (deputized neighborhood guards) and marine guards include only patrolling and surveillance, but not apprehension, which is the responsibility of the municipal government. The weak coordination between the municipal and the barangay governments however have caused the lack of follow-through in penalizing violators.
- It was the experience of some barangay councils that sometimes the municipal government gives no receipts on penalties apprehensions. Also, the amount of fines for the penalties were settled by the municipal government at discounted amounts. This has been a source of frustration among the barangay councils.

Financing

- Most barangay councils think that the one that gets most of the financial benefit from the penalties incurred from MPA violations, is the municipal government and not them (barangay).
- Barangay Hingantungan and Lagoma reported that the budget for the MPA is taken from the barangay's Annual Investment Plan (AIP) of the Internal Revenue Allotment which is usually about



5,000 Php per year. Barangay Sudmon, however, submitted a resolution to ask for more funding from the Municipal and Provincial Government.

Monitoring

- Barangay councils do not request assistance for biophysical monitoring.
- They also do not have hard copies of the results of previous assessments.

Site development

- Others also asked for equipment assistance for their MPA through the barangays leadership initiatives
- Some common MPA violations at Balagawan, Hingatungnan, Lagoma are the vandalizing of their buoy markers
- Many of the equipment donated by the provincial and municipal governments are usually those that can not be readily used. For example, Barangay Sudmon got two boat engines without hulls, Barangay Balagawan and Lagoma got one each, and none for Mercedes.

IEC activities

- Barangay councils think that IEC about MPAs need to be strengthened and misconceptions about the MPAs should be corrected. For example, some barangay councils think that open season is allowed in MPAs after they have been established for at least five years. Also, they think that gleaning can and should be allowed in MPAs. Moreover, information about their respective MPAs, such as buffer zones, boundaries, size, where to fish, and landing areas, need to be clear.

Key Results of the Community Perception Survey

- Community members are generally positive towards the MPAs. Nine out of 10 key informants believe that MPAs provide direct benefits to the communities.
- Most informants attribute increase of fish catch to MPAs (even if some violations still happen).
- Most informants believe MPAs should be sustained.
- They also indicate support for MPAs by reporting violations and participating in activities.

See appendix A for the summary results of the biophysical assessments of Silago MPAs and appendix B for the summarized answers of key informants per barangay.

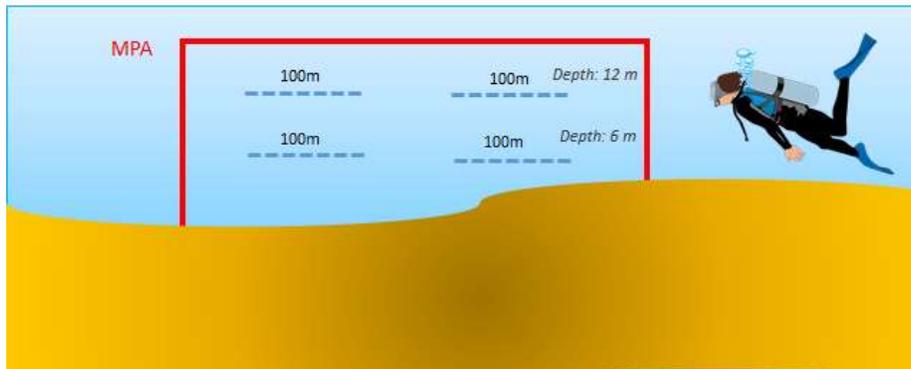


APPENDIX A

Biophysical Assessment Results of Silago MPAs

October 2015 and June 2016

MPA Assessment Methodology



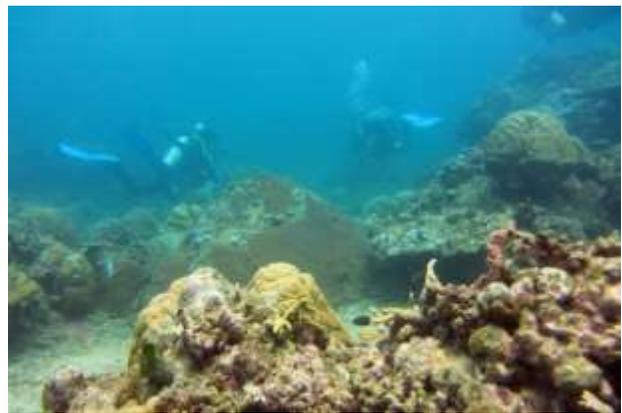
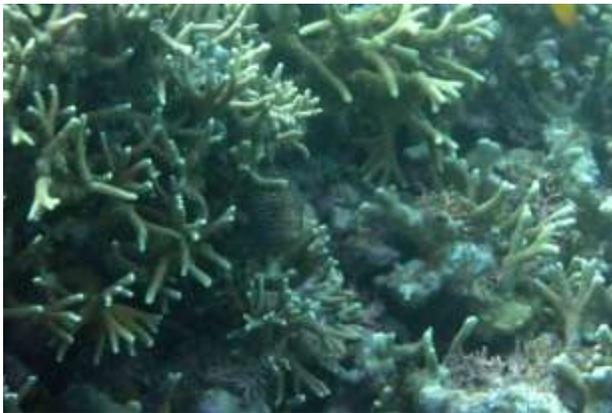
Reef Check methodology

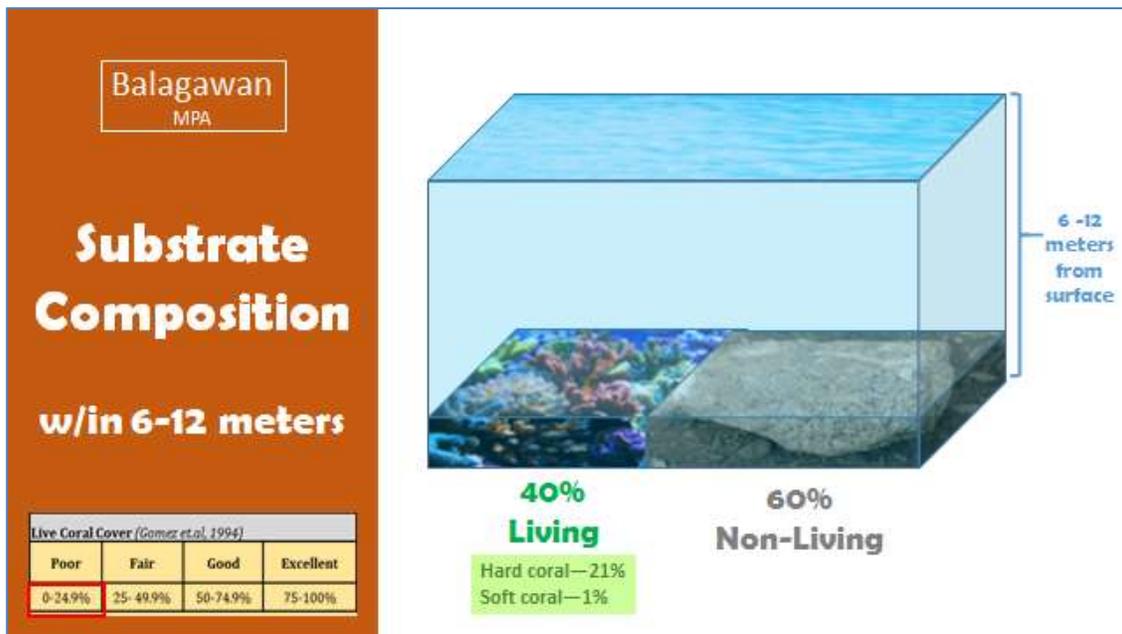
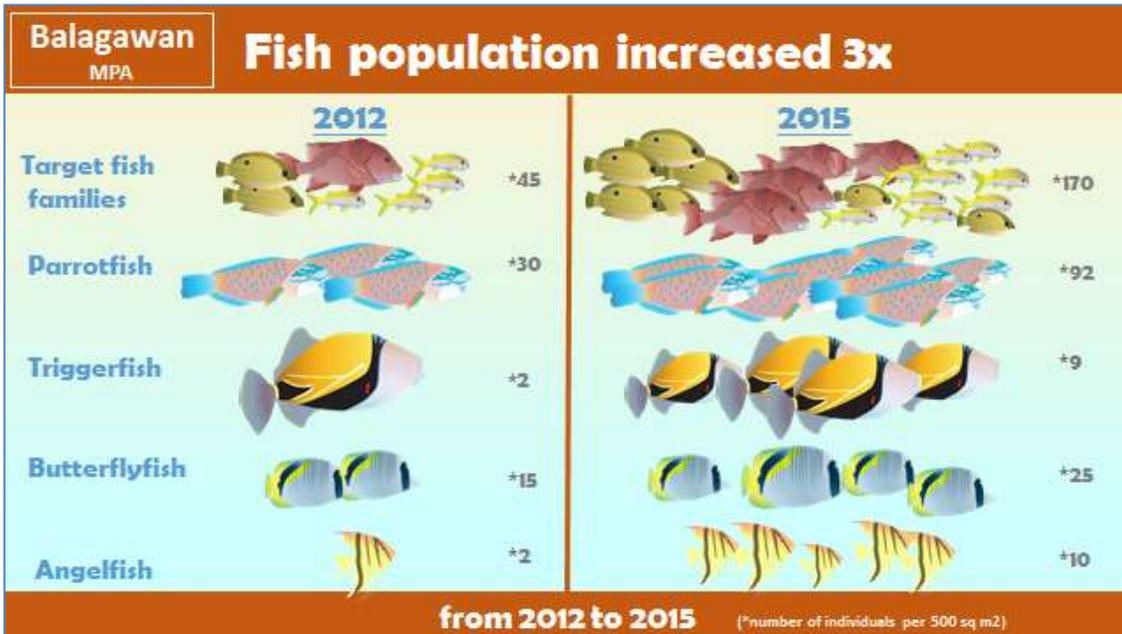
- **Fish**
 - Record numbers of species 2.5 meters on both sides of the transect, and 5 meters above.
- **Invertebrates**
 - Record numbers of species 2.5 meters on both sides of the transect.
- **Substrate**
 - Point intercept- record data every .5 meter



Balagawan MPA

(8.25 hectares, 5 years established)

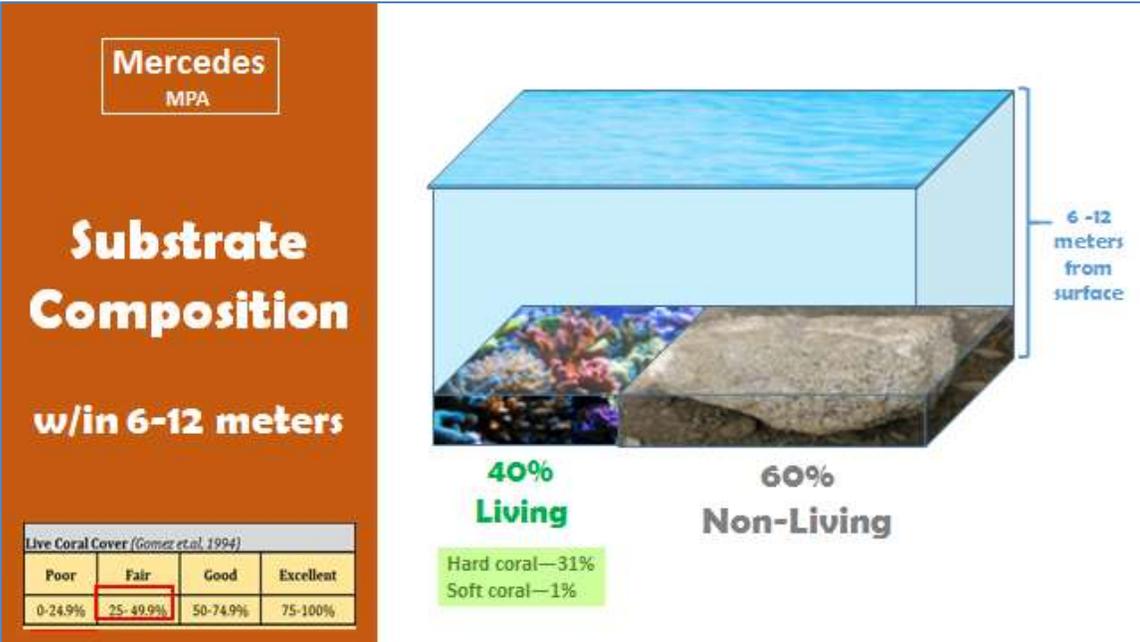
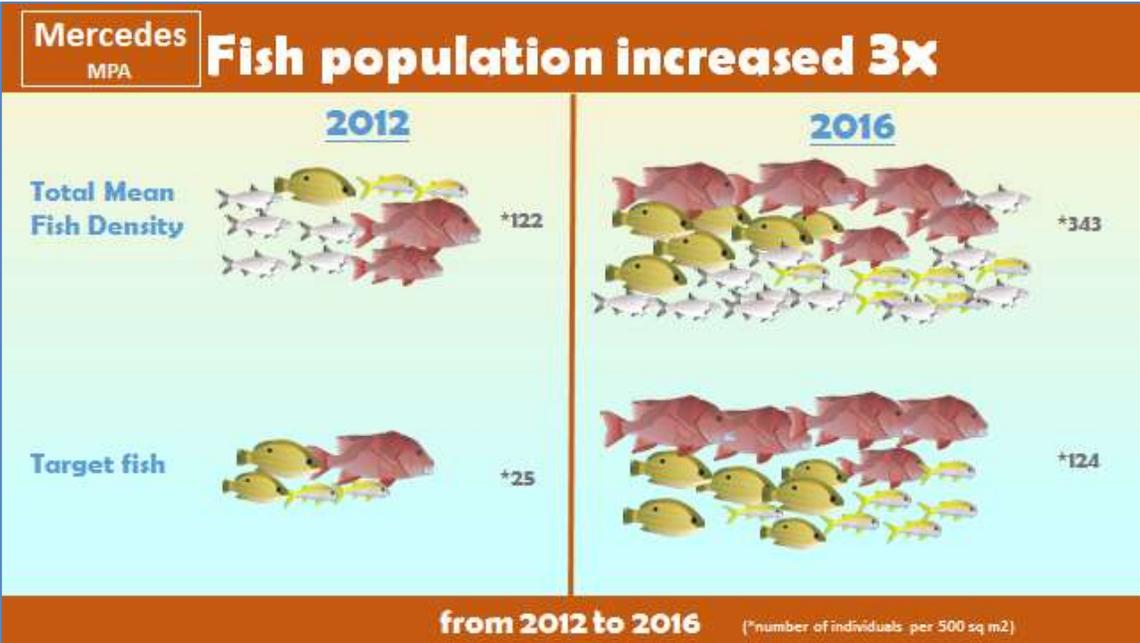




Mercedes MPA

(17.5 hectares, 6 years established)

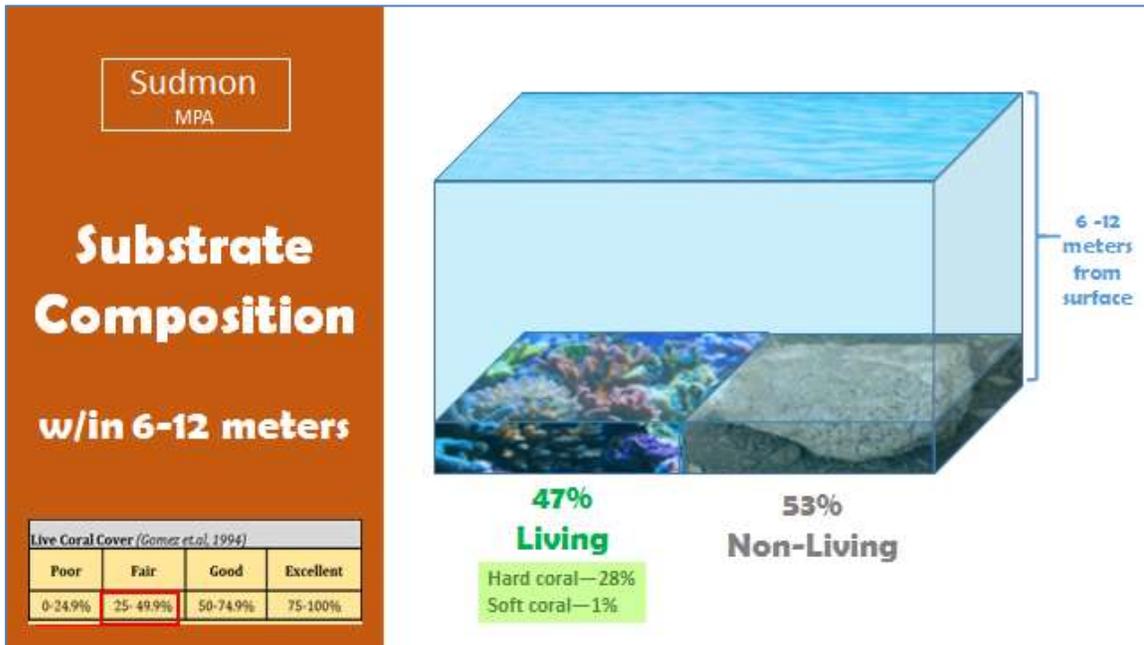
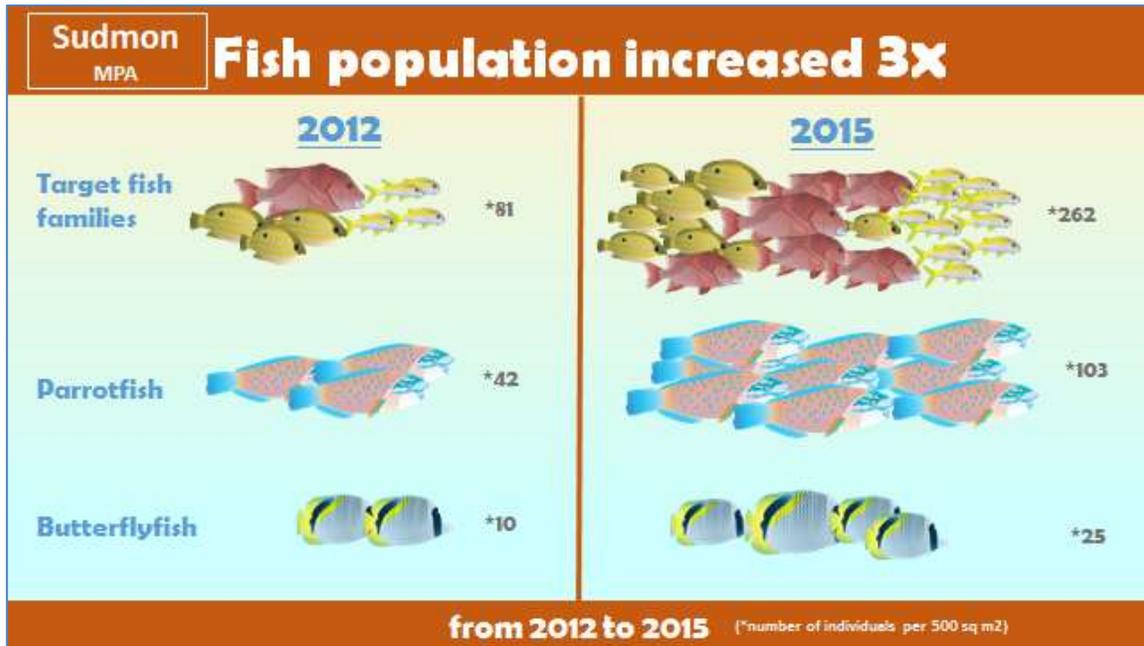




Sudmon MPA

(27.2 hectares, 11 years established)





Lagoma MPA

(40.1 hectares, 15 years established)



Lagoma
MPA

Fish population

2016

Total Mean Fish Density

(This is the first survey done by ORC in Lagoma)



+244

Target Fish Density



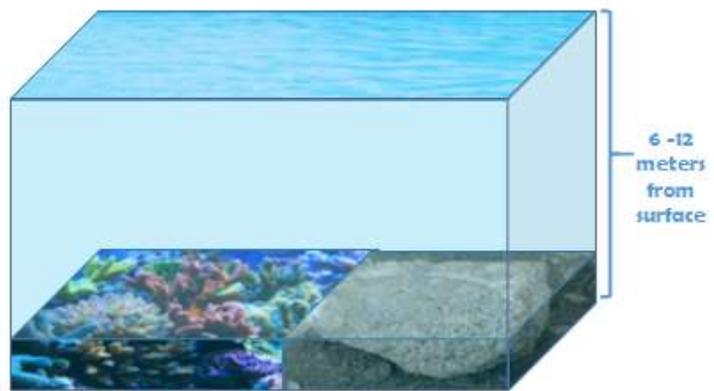
+118

(*number of individuals per 500 sq m2)

Lagoma
MPA

Substrate Composition

w/in 6-12 meters



62%

Living

Hard coral—53%
Soft coral—1%

48%

Non-Living

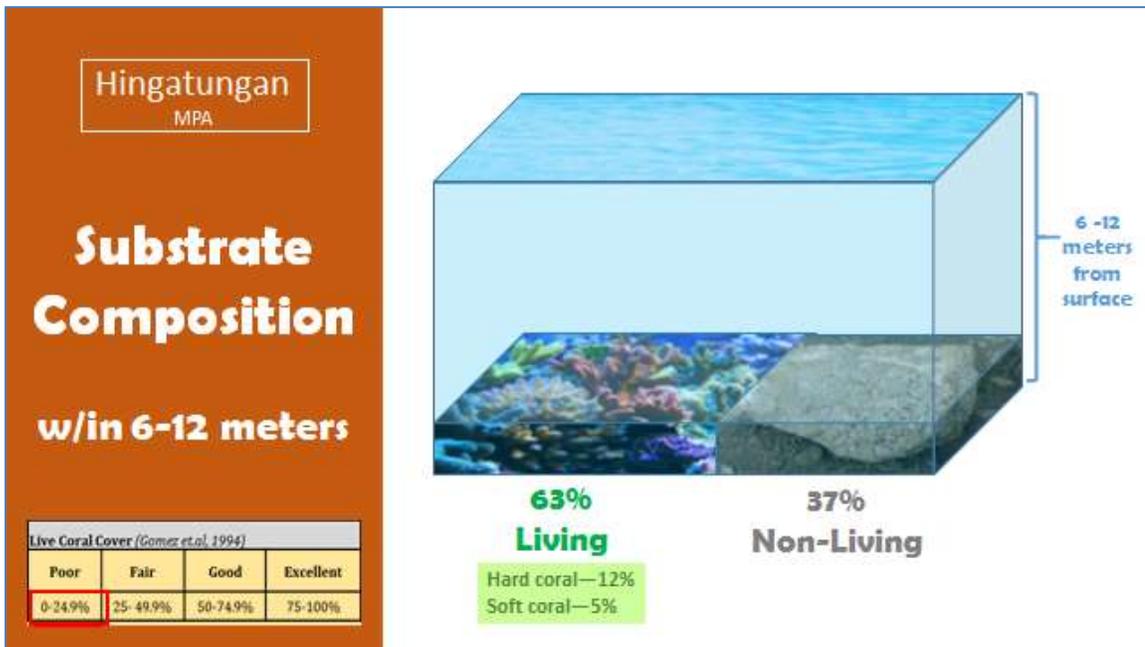
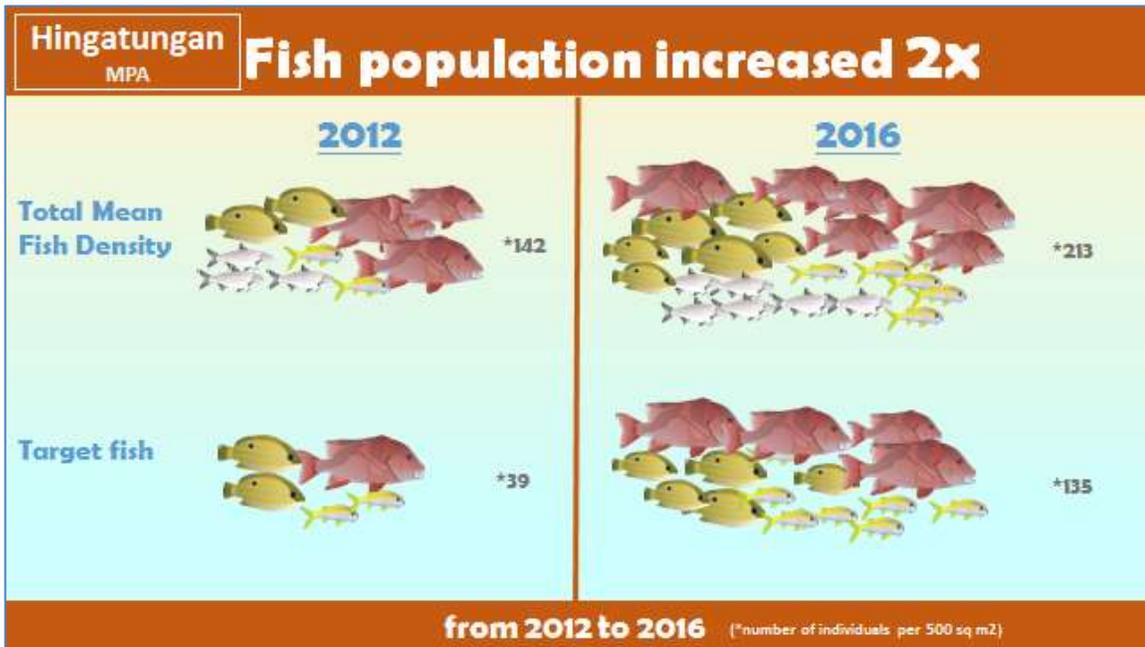
Live Coral Cover (Gomez et al. 1994)

Poor	Fair	Good	Excellent
0-24.9%	25-49.9%	50-74.9%	75-100%



Hingatungan MPA
(31 hectares, 7 years established)





4. Do you think that the MPA management group is functional?	
[YES] [NO] [UNDECIDED]	<i>Yes, the Marine guards and tanods guards the MPA (frequent answer)</i>
If yes, in what ways is it functional?	
If no or undecided, why?	
5. Do you think the MPA efforts can be sustained?	
[YES] [NO] [UNDECIDED]	<ol style="list-style-type: none"> <i>Yes, because of the benefit of the sanctuary to the community/ yes, through the community's participation (frequent answer)</i> <i>No, the Barangay Captain has little concern about the MPA management (1 answer)</i>
Why?	
6. Will you support the continued management of the MPA?	
<input type="checkbox"/> YES	<i>Yes, by guarding and reporting violators/ yes, by contributing helpful ideas to protect the MPA (frequent answer)</i>
How will you support it?	
<input type="checkbox"/> NO	
What would make you support it?	

Table 2. Barangay Mercedes

1. Do you know about the (interviewers states the name of the MPA and place)?	Barangay Mercedes
[YES]	
a. How did you know?	<i>Yes, through barangay assemblies (frequent answer) Yes, through word of mouths (few answers)</i>
b. What are the functions & benefits of MPA?	<i>Habitat for fishes</i>
[NO]	
Why?	
2. FOR DIRECT (fishers) STAKEHOLDERS:	
Did your fish catch increase because of MPA?	<ol style="list-style-type: none"> <i>Yes, the catch increased and more fish can be seen</i> <i>None, it provides no income</i>
[YES] [NO] [UNDECIDED]	



Why?	
FOR non-fishers STAKEHOLDERS:	
Have you benefited from MPA?	<ol style="list-style-type: none"> 1. Yes, because more fish breeds inside the MPA (frequent answer)/Yes, more fish catch and more fish can be bought (few answers) 2. No, nothing gained from the MPA (few answers)/No, MPA management is not effective (few answers)
In what way?	
3. Is there on increase or decrease in the incidence of illegal activities in the area since the MPA was established?	
<input type="checkbox"/> increase <input type="checkbox"/> decrease <input type="checkbox"/> undecided	Decrease, because violators will be apprehended and fined (few answers)/ Decrease, because of the MPA guards (few answers)
To what do you attribute the change?	
4. Do you think that the MPA management group is functional?	
<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNDECIDED	Yes, because of the presence of the MPA /yes, because guards are regularly roving
If yes, in what ways is it functional?	
If no or undecided, why?	
5. Do you think the MPA efforts can be sustained?	
<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNDECIDED	Yes, as long as they protect the MPA/yes, because it benefits the community
Why?	
6. Will you support the continued management of the MPA?	
<input type="checkbox"/> YES	Yes, by helping to protect the MPA and reporting violators/ yes, by participating in activities meant to protect the sanctuary
How will you support it?	
<input type="checkbox"/> NO	
What would make you support it?	

Table 3. Barangay Sudmon

1. Do you know about the (interviewers states the name of the MPA and place)?	Barangay Sudmon
<input type="checkbox"/> YES	
a. How did you know?	Yes, through barangay assembly (frequent answer)/yes, through surveys (few answers)



b. What are the functions & benefits of MPA?	
[NO]	<i>Abundant marine resources (fish, corals, mangroves)/breeding area for fishes</i>
Why?	
2. FOR DIRECT (fishers) STAKEHOLDERS:	
Did your fish catch increase because of MPA?	
[YES] [NO] [UNDECIDED]	<i>Yes, because it provides shelter and breeding area for fishes/yes, because more fish can be seen (frequent answer)/yes, MPA is protected</i>
Why?	
FOR non-fishers STAKEHOLDERS:	
Have you benefited from MPA?	
In what way?	
3. Is there on increase or decrease in the incidence of illegal activities in the area since the MPA was established?	
<input type="checkbox"/> increase <input type="checkbox"/> decrease <input type="checkbox"/> undecided	
To what do you attribute the change?	<ol style="list-style-type: none"> 1. <i>Decrease, marine guards protect the MPA</i> 2. <i>Undecided, barangay officials no longer concerned about the MPA</i>
4. Do you think that the MPA management group is functional?	
[YES] [NO] [UNDECIDED]	
If yes, in what ways is it functional?	<i>Yes, presence of marine guards/presence of barangay officials</i>
If no or undecided, why?	
5. Do you think the MPA efforts can be sustained?	
[YES] [NO] [UNDECIDED]	
Why?	<i>Yes, if the whole community helps/ Yes, because the MPA provides for the community</i>
6. Will you support the continued management of the MPA?	
<input type="checkbox"/> YES	<i>Yes, by guarding the sanctuary and reporting violators/help urge other people to help the MPA</i>
How will you support it?	
<input type="checkbox"/> NO	
What would make you support it?	



Table 4. Barangay Lagoma

1. Do you know about the (interviewers states the name of the MPA and place)?	Barangay Lagoma
[YES]	
a. How did you know?	<i>Yes, through an assembly meeting</i>
b. What are the functions & benefits of MPA?	<i>Shelter and breeding ground for fishes</i>
[NO]	
Why?	
2. FOR DIRECT (fishers) STAKEHOLDERS:	
Did your fish catch increase because of MPA?	
[YES] [NO]	<i>Increase, protecting the breeding ground of fishes produce more catch</i>
[UNDECIDED]	<i>Decrease, the MPA managers catches the fish themselves (few answers)</i>
Why?	
FOR non-fishers STAKEHOLDERS:	<i>More breeding ground for the fishes</i>
Have you benefited from MPA?	
In what way?	
3. Is there on increase or decrease in the incidence of illegal activities in the area since the MPA was established?	
[] increase [] decrease [] undecided	<i>Decrease, due to the presence of marine guards and penalties for violators</i> <i>Increase, the MPA managers sometimes fish illegally</i>
To what do you attribute the change?	
4. Do you think that the MPA management group is functional?	
[YES] [NO] [UNDECIDED]	<i>Yes, because of the presence of the MPA /yes, because guards are regularly roving</i>
If yes, in what ways is it functional?	
If no or undecided, why?	
5. Do you think the MPA efforts can be sustained?	
[YES] [NO] [UNDECIDED]	<i>Yes, due to the presence of marine guards and visible barangay tanod roving</i>
Why?	<i>No, some tanods violates the MPA rules</i>
6. Will you support the continued management of the MPA?	
[] YES	
How will you support it?	<i>Yes, more understanding of the MPAs' importance by the community (less)/yes, the MPA is well-guarded</i>
[] NO	



What would make you support it?	
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Table 5. Barangay Hingatungan

1. Do you know about the (interviewers states the name of the MPA and place)?	Barangay Hingatungan
[YES]	
a. How did you know?	<i>Yes, through barangay assembly</i>
b. What are the functions & benefits of MPA?	<i>Shelter for small fish and breeding areas</i>
[NO]	
Why?	
2. FOR DIRECT (fishers) STAKEHOLDERS:	
Did your fish catch increase because of MPA?	
[YES] [NO]	
[UNDECIDED]	<i>Yes, the fish are less disturbed</i>
Why?	
FOR non-fishers STAKEHOLDERS:	
Have you benefited from MPA?	<i>Yes, more fish can be caught and sold to them</i>
In what way?	
3. Is there on increase or decrease in the incidence of illegal activities in the area since the MPA was established?	
<input type="checkbox"/> increase <input type="checkbox"/> decrease <input type="checkbox"/> undecided	<i>Decrease, as there are more people involve in guarding the sanctuary. Decrease, as the violators are afraid of penalties</i>
To what do you attribute the change?	
4. Do you think that the MPA management group is functional?	
[YES] [NO]	
[UNDECIDED]	<i>Yes, the marine resources are now protected from the effort of the barangay officials and concerned citizens</i>
If yes, in what ways is it functional?	
If no or undecided, why?	
5. Do you think the MPA efforts can be sustained?	
[YES] [NO]	
[UNDECIDED]	<i>Yes, through the guarding dedication of the marine guards and concern citizens</i>
Why?	<i>No, because some marine guards do not uphold their importance and caught fishes themselves</i>
6. Will you support the continued management of the MPA?	
<input type="checkbox"/> YES	<i>Yes, through attending MPA activities/ through helping monitor the MPA</i>
How will you support it?	<i>Yes, more community involvements</i>



[] NO	
What would make you support it?	

