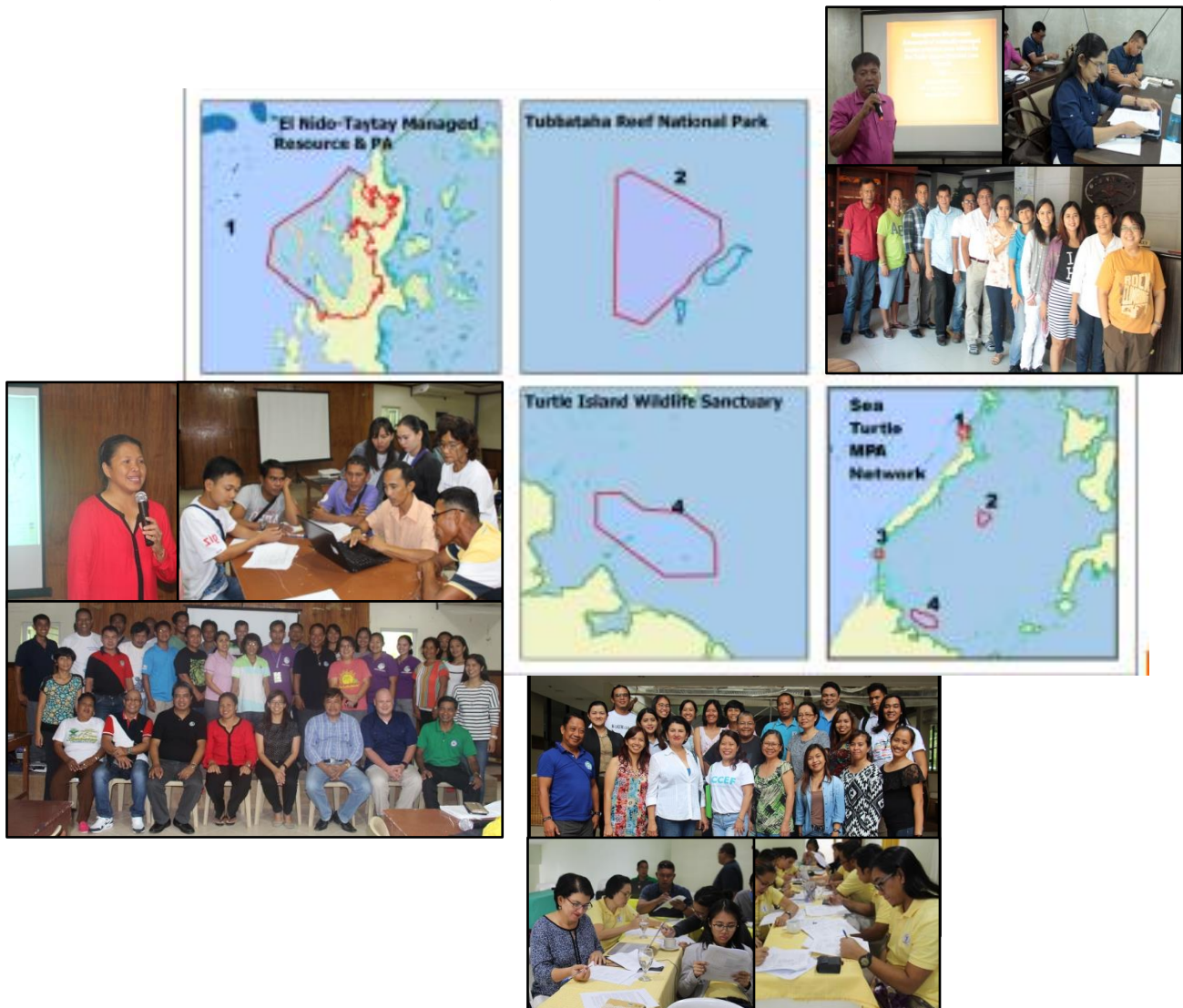


Management Effectiveness Assessment of Nationally-Managed Marine Protected Areas within the Sea Turtle Marine Protected Area Network (2016)



Contents

List of Acronyms	4
List of Tables	5
List of Figures.....	6
I. Executive Summary.....	7
II. Introduction.....	11
III. Objectives.....	12
IV. Management Effectiveness Assessment Tools and Process	12
A. METT	13
B. MPA MEAT	13
C. Assessment Facilitation Process	14
V. Management Effectiveness Assessment Results.....	17
A. Common Threats among the PAs in the ST-MPAN in the Philippines.....	17
B. Management Effectiveness of the three PAs in the ST-MPAN in the Philippines	17
B.1 Assessment Results using METT	17
B.2 Assessment Results using MEAT	19
C. Trends in Management Effectiveness of the PAs in the ST-MPAN in the Philippines	19
C.1 Trends using METT	19
C.2 Trends using MEAT	20
VI. Management Effectiveness Assessment Results in ENMRPA	21
A. METT Results 2016	22
A.1 Comparative Analysis of METT Results.....	24
A.2 Addressing the Threats and Issues in ENTMRPA.....	25
B. MEAT Results 2016.....	27
B.1. Comparative Analysis of MEAT Results.....	28
B.2 Immediate Action Plan addressing the results of MEAT of ENTMRPA	30
C. Priority Activities of ENTRMPA	30
VII. Assessment Results of TRNP.....	32
A. METT Results 2016	32
A.1 Comparative Analysis of METT Results.....	34
A.2 Addressing the Threats and Issues in TRNP.....	35
B. MEAT Results 2016.....	36
B.1 Comparative Analysis of MEAT Results.....	37
C. Priority Activities of TRNP	39
VIII. Assessment Results of TIWS.....	39
A. METT Results 2016	40
A.1 Comparative Analysis of METT Results.....	42
A.2 Addressing the Threats and Issues in TIWS.....	43
B. MEAT Results 2016.....	44
B.1 Comparative Analysis of MEAT Results.....	45
B.3 Immediate Action Plan addressing the results of MEAT of TIWS	46
C. Priority Activities of TIWS	47
IX. Conclusion and Recommendations.....	48
References	51
Annexes	52
Annex A1: Summary of Threats in ENTMRPA (METT Results 2016).....	52
Annex A2: Assessment of Threats in ENTMRPA (METT Results 2016).....	54
Annex A3: Assessment of Issues in ENTMRPA (METT Results 2016).....	56
Annex A4: ENTMRPA MEAT Results 2016	57
Annex B1: Summary of Threats in TRNP (METT Results 2016)	58
Annex B2: Assessment of Threats in TRNP (METT Results 2016)	60

Annex B3: Assessment of Issues in TRNP (METT Results 2016)	62
Annex B4: TRNP MEAT Results 2016.....	63
Annex C1: Summary of Threats in TIWS (METT Results 2016)	64
Annex C2: Assessment of Threats in TIWS (METT Results 2016)	66
Annex C3: Assessment of Issues in TIWS (METT Results 2016).....	69
Annex C4: TIWS MEAT Results 2016.....	71
Appendices.....	72
Appendix 1: Management Effectiveness Tracking Tool (Version 21 Mar 2013)	72
Appendix 2: MPA Management Effectiveness Assessment Tool.....	73
Appendix 3: MEAT and Enhanced METT Workshop Flow	74

List of Acronyms

AFP	Armed Forces of the Philippines
BFAR	Bureau of Fisheries and Aquatic Resources
BMB	Biodiversity Management Bureau
BMCA	Balabac Marine Conservation Area
BMS	biodiversity monitoring system
BMUB	Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
CCEF	Coastal Conservation Education Foundation
CBMS	community based monitoring system
CLUP	comprehensive land use plan
CLWUP	comprehensive land and water use plan
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CTI	Coral Triangle Initiative
CTI-CFF	Coral Triangle Initiative on Coral Reef, Fisheries and Food Security
CTSP	Coral Triangle Support Partnership
DENR	Department of Environment and Natural Resources
ENELEC	El Nido Law Enforcement Council
ENIPAS	Expanded National Protected Area System
ENTMRPA	El Nido Taytay Managed Resource Protected Area
ETDF	Eco-Tourism Development Fund
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GMP	general management plan
IEC	information, education and communication
IPAF	Integrated Protected Area Fund
IUCN	International Union for Conservation of Nature and Natural Resources
LAC	limits of acceptable change
LGU	local government unit
MEAT	Management Effectiveness Assessment Tool
METT	Management Effectiveness Tracking Tool
MPAs	Marine Protected Areas
MSN	MPA Support Network
NGOs	non-government organizations
NIPAS	National Integrated Protected Area Systems
PAs	protected areas
PAMB	Protected Area Management Board
PASu	Protected Area Superintendent
PCSD	Palawan Council for Sustainable Development
PNP	Philippine National Police
PPE	Personal Protective Equipment
PSSA	particularly sensitive sea areas
RPOA	Regional Plan of Action
SSME	Sulu Sulawesi Marine Ecoregion
TRNP	Tubbataha Reefs Natural Park
TMO	Tubbataha Management Office
TIWS	Turtle Islands Wildlife Sanctuary
WCPA	World Commission on Protected Areas
WWF	World Wildlife Fund for Nature

List of Tables

Table 1: Summary of Assessment Results (2016)	7
Table 2: Summary of Immediate Actions in Response to the Results of the Assessment (2016)	8
Table 3: Proposed two-day Management Effectiveness Assessment cum planning workshop flow	9
Table 5: MPA MEAT Rating Reference	14
Table 6: METT assessors for ENTMRPA METT assessment conducted in 2016.....	15
Table 7: METT assessors for TRNP METT assessment conducted in 2016.....	16
Table 8: METT assessors for TIWS METT assessment conducted in 2016.....	16
Table 9: Threats in the three PAs of ST-MPAN in the Philippines.....	17
Table 10: Percentage scores of the three PAs in the ST-MPAN in the Philippines (METT 2016)	18
Table 11: MEAT Results 2016 for the three PAs of the ST-MPAN in the Philippines	19
Table 12: Top 10 threats rated as “High” based on the METT.....	22
Table 13: Action plan to reduce the threats of the PA	25
Table 14: Action plan to address the issues of the PA	26
Table 15: Trend in the Management Status of ENTMRPA	29
Table 16: Immediate Action Plan to Address the Thresholds	30
Table 17: ENTMRPA Action Plan.....	31
Table 18: Top 10 threats rated as “High” based on the METT.....	33
Table 19: Action Plan to address the threats in TRNP	35
Table 20: Action to address the issues in TRNP (METT 2016)	36
Table 21: Trend in the Management Status of TRNP	37
Table 22: TRNP Action Plan	39
Table 23: Top 10 threats rated as “High” based on the METT.....	41
Table 24: Action Plan to address the threats in TIWS	43
Table 25: Action to address the issues in TIWS (METT 2016)	44
Table 26: Trend in the Management Status of TIWS	45
Table 27: Immediate Action Plan to Address the Thresholds	46
Table 28: TIWS Action Plan	47
Table 29: Proposed two-day Management Effectiveness Assessment cum planning workshop flow	49

List of Figures

Figure 1: Thresholds for each of the management effectiveness level.....	13
Figure 2: Assessment Results using METT	18
Figure 3: Total Average Percentage Scores of the three PAs in ST-MPAN in the Philippines.....	20
Figure 4: Level of Management Effectiveness of the three PAs in the ST-MPAN in the Philippines.....	21
Figure 5: Management Status of the three PAs in the ST-MPAN in the Philippines.....	21
Figure 6: Map showing the boundaries of ENTMRPA	22
Figure 7: Percentage scores per IUCN-WCPA Element based on the METT response on ENTMRPA PAMB members for 2016.....	24
Figure 8: Trend in METT Results of ENTMRPA	24
Figure 9: MEAT Results of ENTMRPA in 2016	28
Figure 10: Trends in MEAT Results of ENTMRPA.....	29
Figure 11: Map showing the boundaries of TNRP	32
Figure 12: Percentage scores per IUCN-WCPA Element based on the METT response on TNRP PAMB members for 2016.....	34
Figure 13: Comparative Analysis of the METT Results of TRNP in 2014 and 2016	35
Figure 14: MEAT Results in TRNP (2016)	37
Figure 15: MEAT Results of TRNP (2011, 2014, 2016)	38
Figure 16: Map showing the boundaries of TIWS	40
Figure 17: Percentage scores per IUCN-WCPA Element based on the METT response on TIWS PAMB members for 2016.....	42
Figure 18: Comparative Analysis of the METT Results of TIWS 2014 and 2016.....	43
Figure 19: MEAT Results of TIWS (2016).....	45
Figure 20: MEAT Results of TIWS (2011, 2014, 2016)	46

I. Executive Summary

The 2016 management effectiveness assessment of the three marine protected areas (MPAs) in the Sea Turtle Marine Protected Area Network in the Philippines was conducted separately to wit, El Nido-Taytay Managed Resource Protected Area (ENTMRPA) on October 4-5, 2016 in El Nido, Palawan; Tubbataha Reefs Natural Park (TRNP) on October 6-7, 2016 in Puerto Princesa City and Turtle Islands Wildlife Sanctuary (TIWS) on November 7-8, 2016 in Cebu City.

Consistent with the 2014 assessment, the tools used during the assessment are the Management Effectiveness Tracking Tool (METT), which is an internationally used tool for protected area management effectiveness; and MPA Management Effectiveness Assessment Tool (MEAT), which is developed by various non government organizations and academic institutions supporting the development of marine protected areas in the Philippines.

The results from both tools show an increasing trend in management effectiveness status of the three PAs mentioned. The three PAs improved in their level of management effectiveness by one step each. ENTMRPA and TIWS improved from Level 1 in 2014 to Level 2 in 2016 while TRNP from Level 3 in 2014 to Level 4 in 2016.

Table 1: Summary of Assessment Results (2016)

Name of PA	MEAT				METT	
	2014		2016		2014	2016
	Total Score	Level Achieved	Total Score	Level Achieved	Total Percentage Score	Total Percentage Score
ENTMRPA	55	Level 1	59	Level 2	60%	65%
TRNP	81	Level 3	84	Level 4	94%	92%
TIWS	50	Level 1	67	Level 2	51%	56%

Part of the output of the assessment is the identification of priority activities to be implemented immediately in the PA to continue the progress of the effective management of the PA. For ENTMRPA, there is a need to update the general management plan (GMP), reactivate the law enforcement team which is the El Nido Law Enforcement Council (ENELEC) and strengthening of the information and awareness campaigns in the PA.

The TRNP needs to address coastal erosion in one of its atolls by seeking assistance from scientists and experts to identify effective and sustainable mitigating measures. It also needs to upgrade its the radar and communication equipment for law enforcement activities. There is also a need to establish the limits of acceptable change (LAC) as the basis for the formulation and adoption of specific regulations in the PA.

The TIWS identifies the strengthening of law enforcement by conducting enforcement planning to come up with a draft Memorandum of Understanding and Enforcement and Tactical Plan. The PA also will improve on its solid waste management.

Table 2: Summary of Immediate Actions in Response to the Results of the Assessment (2016)

Areas for Improvement		
ENTMRPA	TRNP	TIWS
Updating of the GMP	Erosion and siltation / deposition <ul style="list-style-type: none"> • Coordinate with the experts on coastal erosion to conduct study on the identifying mitigating measures to abate the current erosion rate in the atolls. • Seek assistance from partners for the conduct of the study • Seek assistance from partners on the implementation of coastal erosion mitigating measures 	Strengthening of law enforcement <ul style="list-style-type: none"> • Conduct of law enforcement planning workshop with ff participants: AFP (NFWM) (2), PNP (COP-Taganak) (1), BFAR law enforcement team: bantay-dagat (5), BFAR (1) BFAR-ARMM-FRMD & QRT (2), LGU (2), PAMB (2), PENRO-ARMM (1) DENR-TIWS (3), DENR R9 (2) as the team leader, around 20 pax <p>Output of the Workshop is the Draft MOU, Enforcement & Tactical Plan</p>
Re-activation of ENELEC	Law Enforcement <ul style="list-style-type: none"> • Upgrade the radar, communication equipment 	Marine debris and Solid Waste Management at the household level <ul style="list-style-type: none"> • -Convene women's group for SWM • -Regular community awareness rounds by PNP • -Installation of signages • -Conduct training on segregation practices among women • -Civil military operation Activity by NFWM on Environmental Management education Seminar (EMS)
Strengthen IEC program	Protected Area Regulations <ul style="list-style-type: none"> • Partner with academic institutions to conduct study on the carrying capacity or limits of acceptable change (LAC) of the PA to determine the scale of tourism industry, acceptable number of visitors 	

Based on the discussions in the three PAs, it is recommended that the assessment results should be incorporated in the updating of the general management plan and preparation of annual work and financial plan. The performance audit committee should be made functional as a monitoring and evaluation unit and capacity development committee of the PA or PAMB.

On the assessment process and methodology, the use of the two existing management effectiveness tools in the country namely, METT which is an internationally used tool with its additional qualifiers developed by the DENR and its partners to capture the current PA system practices in Philippine setting, and MEAT which features most common parameters of marine protected area management in the Philippines, remains the most effective method of evaluating the three MPAs in the STMPAN. Both tools are recommended to be conducted periodically (say every two years) in conjunction with annual work and financial planning or updating of the general management plan. The two-day workshop flow below is recommended to be adopted by the PAMB audit committee as the process of conducting the management assessment cum planning workshop.

Table 3: Proposed two-day Management Effectiveness Assessment cum planning workshop flow

Day 1	Activity	Logistics Needed
8:00-9:00	Registration	Attendance Sheets, Kit
9:00-9:30	Opening Ceremonies	
	Opening Prayer	Laptop and LCD
	Philippine National Anthem	Laptop and LCD
	Messages	From DENR, Sponsor, LGU and other guests
	Workshop Objectives and Schedule	To be given by the facilitator or project coordinator
9:30-10:00	Presentation of the assessment tools (process, summary of criteria, scoring and analysis of assessment results - METT and MEAT	Facilitator
10:00-10:15	Break	
10:15-11:30	Presentation of the previous METT results (including the updates on the action plan of the latest assessment result)	To be given by the PASu
11:30-12:00	METT Assessment on Plenary	Facilitator and Participants
12:00-1:00	Lunch Break	
1:00-3:00	Continuation of the METT Assessment on Plenary	Facilitator and Participants
3:00-3:15	Break	
3:15-3:30	Presentation of the previous MEAT results (including the updates on the action plan of the latest assessment result)	To be given by the PASu
3:30-5:00	MEAT Assessment on Plenary	Facilitator and Participants
Day 2		
8:00-8:30	Registration and Recapitulation	Participant/Secretariat
8:30-9:00	Presentation of Assessment Results from the previous day	Facilitator
9:00-11:00	Action Planning to address the needs resulting from the assessment	Participants
11:00-11:30	Presentation of action plan	
11:30-12:00	Preparation of the Annual Work and Financial Plan using the prescribed format	Participants
12:00-1:00	Lunch	
1:00-2:30	Continuation of the preparation of the work and financial plan	Participants
2:30-3:00	Presentation of the Annual Work and Financial Plan	Group Leaders
3:00-3:15	Break	
3:00-5:00	Formal PAMB meeting to adopt the Annual Work and Financial Plan	PAMB
5:00	Adjournment	

The conduct of MPA MEAT in plenary with the PAMB members of the PA is highly recommended. This method provides a venue for the members and stakeholders to discuss each criterion and come up with a consensus score.

The METT, on the other hand, requires the evaluation from each of the PAMB member. In 2016 and 2014 assessment, the quorum of PAMB en banc as prescribed by the DENR department order is not achieved. This is most probably because the assessment was not undertaken during any of the regular or special session of PAMB. Hence, it is recommended that the conduct of management effectiveness assessment be undertaken during any of the regular or special session of the PAMB concerned.

On the process of facilitating the METT, it is recommended to conduct METT in plenary also in the same method as the MEAT so that the PAMB members and PA staff may have opportunity to discuss and clarify issues pertaining to each of the threat and effectiveness criteria or issue of the tool.

II. Introduction

The marine protected areas (MPAs) in the Philippines play a very important role in maintaining an ecological and biological system balance and sustaining the ecological services. The country with its vibrant resources has existing laws and regulations in conserving and protecting these resources, one of which is the National Integrated Protected Area Systems (NIPAS) Act of 1990 or Republic Act 9260.

Of the total of 240 protected areas declared under NIPAS, 33 are marine areas or have marine components. At the turn of the millennium, the scaling up of efforts in managing marine protected areas has resulted to the formation of marine protected area network to protect a significant system or habitat which will strategically improve the management of specific key species. Networks of marine protected areas in ecological regions, has been proven to be an innovative scheme to increase the effects of the protection at the same time reduce investments in terms of law enforcement and other management initiatives.

The Sea Turtle Marine Protected Area Network (STMPAN) aims to increase the effectiveness of the management and protection of the key species particularly the green sea turtles (*Chelonia mydas*). The decreasing trend in the population of the green sea turtle species has placed it under the endangered status according to the International Union for Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species. Sea turtles (*Cheloniidae spp.*), are listed under Appendix 1 in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). As such, the convention prohibits international trade of these endangered species.

In 2009, the Tri-national Committee for the Sulu-Sulawesi Marine Ecoregion (SSME) has approved the design of the STMPAN in the three countries of Indonesia, Malaysia and Philippines. The STMPAN covers four sites namely, TIWS, TRNP, ENTMRPA, and Balabac Marine Conservation Area (BMCA).

The three out of the four MPAs (TIWS, TRNP and ENTMRPA) are declared as protected areas under NIPAS. These three protected areas (PAs) are equipped with management bodies that govern the implementation of the activities to protect and rehabilitate marine ecological systems for food security and eco-tourism purposes.

As an input to the management plans and programs of the protected areas in the network, a periodic assessment of how effective has been the management of the MPAs becomes indispensable in the regular programs of the PAs.

The three PAs in the STMPAN went through management effectiveness assessments in 2011 and 2013. The 2011 assessment was facilitated by Conservation International (CI) in collaboration with the Department of Environment and Natural Resources (DENR). The assessment in 2013 was facilitated by the “Development of a Network of Protected Areas to Safeguard Marine Turtles and their Habitats in the SSME Focusing on Connectivity and Climate Change”. With funding from the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the three PAs within this network were assessed again this 2016 to determine and understand the progress that these MPAs have achieved through time. The outputs of this assessment shall be one of the bases for the capacity building program design for the STMPAN in the Philippines. It is also a compliance with the commitment of the Philippine government to

the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) Regional Plan of Action (RPOA)'s goal on establishment and effective management of MPAs (Goal number 3).

III. Objectives

The main goal of this activity is to employ monitoring and evaluation of the management effectiveness in the three national protected areas within the proposed Philippine sea turtle MPA network. Specific objectives include the following:

1. To review the impact of the previous management effectiveness assessments among the three MPAs;
2. To evaluate the factors that helped or hindered the concerned stakeholders in utilizing the recommendations in previous Management Effectiveness Assessment Tool (MEAT) and Management Effectiveness Tracking Tool (METT) analyses;
3. To assess the management effectiveness among the three sites using MEAT and METT;
4. To assist the MPAs in developing their realistic and doable action plans to address the management gaps that will be identified during the assessment;
5. To pilot-test the enhanced METT tool (generalized PA management framework) in ENTMRPA, TRNP and TIWS.
6. To provide recommendations on the standard national protected area monitoring and evaluation tool.

IV. Management Effectiveness Assessment Tools and Process

The two management effectiveness assessment tools used in the ST-MPAN for the Philippines provided a two-pronged view of the management of the PAs. While MEAT underscores specific management activities gearing towards achieving an effectively managed MPA, the METT, on the other hand, captures the general track at which PAs both marine and terrestrial can be monitored through time.

At the onset of the millennium, the assessment of the marine protected areas had gained recognition as a necessary action to measure how the efforts on the management of MPAs resulted into a better status of the marine resources as well as its ecological services and in relation to the capabilities of the management body. In fact, the development of the MEAT became very popular among the MPA managers, advocates and practitioners. It was developed and used by the MPA Support Network (MSN) as an initial assessment tool for its national incentives and rewards system called the Para El MAR.

On the other hand, the protected areas under the NIPAS both terrestrial and marine areas had intensified the use of the METT as a progress reporting tool consistent with the World Commission on Protected Areas (WCPA). Developed mainly for the terrestrial PAs, the DENR enhanced the tool to include aspects referring to coastal and marine ecosystems.

A. METT

The DENR adopted the METT—prepared by the World Bank and World Wildlife Fund for Nature (WWF) for their Global Environment Facility (GEF)-funded projects on protected areas—as the primary instrument for measuring the management effectiveness of protected areas in the Philippines.

The assessment process requires a quorum of the PAMB en banc. After the brief orientation on the tool, each of the PAMB members present during the en banc meeting will be provided with METT individual assessment form (Appendix 2) where he/she will write his/her own scores. The individual responses of the PAMB members were encoded in a scoresheet to facilitate the computation of the percentage score. There are two parts of the form, the first part evaluates the threats faced by the MPA and the second part is the assessment of the effectiveness of the management of the MPA.

B. MPA MEAT

The MEAT was developed by the MSN, a network of institutions and practitioners supporting the development and management of marine protected areas in the Philippines. It is used to understand the present status of the MPAs based on the parameters of management effectiveness.

It features parameters called thresholds that define the level of management effectiveness. For example, level 1 or established MPAs should have baseline assessment, management plan adopted, legal instrument approved, management body formed and budget allocations for at least one year. The allowable score for threshold questions is either 3 or 0. Scoring in the MEAT form is through an assessment of presence or absence of the required criteria, if the criteria are present, then the score is 3, if absent or partially present, the score is 0. For example, “Baseline assessment conducted”, if there was a baseline assessment conducted and there are documents that could be provided as evidence to the claim, then the MPA will have a score of 3. Although the form (Appendix 1) was designed as a self-assessment tool, it is also requires evidence called “Means of Verification”. This would also encourage the MPAs to have an improved record keeping system even at the barangay or municipal level.

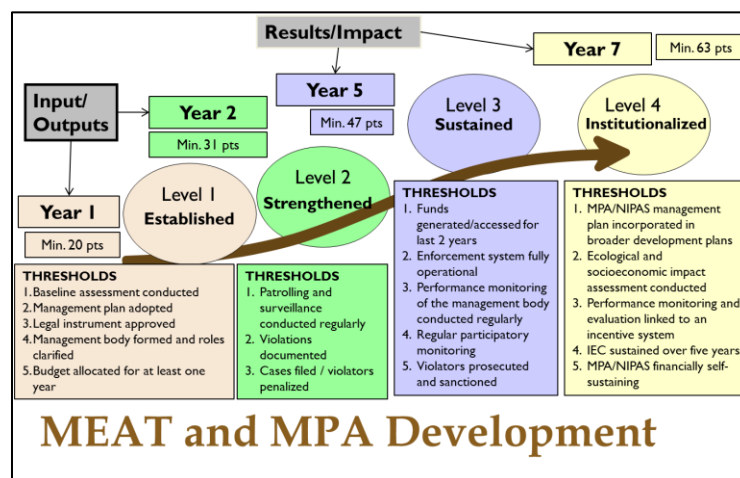


Figure 1: Thresholds for each of the management effectiveness level

To qualify in each level of management effectiveness, all of the threshold questions and at least 75% of the total allowable score in each level should be satisfied. An effectively managed MPA is the MPA that satisfies the requirements of Level 2 and above.

Table 4: MPA MEAT Rating Reference

MPA LEVEL <i>(based on minimum indicators)</i>	# OF ITEMS	<i>Achievable Points</i>	MANAGEMENT STATUS <i>The scores are indicative thresholds that accumulate through time.</i>		The levels below are indicative names used to establish levels of performance
			<i>Minimum Score including Thresholds</i>	<i>Overall Score</i>	
1 – Established [Yr 1+]	17	27	20/27	0-24 – Poor	MPA is Established
2 – Strengthened [3 Yrs +]	9	15	11/15 <i>Cumulative points=31</i>	25-39 – Good	MPA Management is Effectively Strengthened
3 – Sustained [5yrs +]	11	21	16/ 21 <i>Cumulative points = 47</i>	40-61 – Very Good	MPA Management is Effectively Sustained
4 – Institutionalised [7 yrs +]	11	21	16/ 21 <i>Cumulative points=63</i>	62-84 Excellent	MPA Management is Effectively Institutionalized
TOTAL	48	84	63		

C. Assessment Facilitation Process

Consistent with the 2014 Management Effectiveness Assessment, the two tools were used for 2016 assessment. The two-day assessment workshops were conducted in each of the three sites to run METT in the morning of the first day and MEAT in the afternoon.

The METT assessment was conducted by distributing METT forms to the participants. After a brief presentation on the overview of the assessment by the project representative to explain the rationale and background of the activity as well as the objective and expected outputs, the facilitator started to discuss each of the assessment parameters in the METT form starting off with the parameters on threats. While each item is being discussed by the facilitator, the participants give their own evaluation score. For the items under the threat assessment, the participants were asked to choose whether the mentioned threat is “High” if it is seriously degrading the values or affecting 10-100% of the PA; “Medium” if it is having some negative impact or affecting 5-10% of the PA; “Low” if it is present but not seriously impacting the values or affecting 0-5% of the PA; “N/A” if it is not present or not applicable in the protected area; and “No Data” if there are not available information to rank the threat or if the assessor has no idea if the threat is present or absent.

The MEAT assessment, on the other hand is conducted on plenary, wherein the participants come up with a consensus score on each of the criteria. The facilitator discussed each of the 48 criteria from the first to the last item while the scores are being encoded in the PDF file which automatically calculates the total score. In this way, the level of management effectiveness is immediately identified. Some of the submitted electronic and hard copies of documents were also inputted in the “Remarks” portion of the MEAT to justify the score.

The inputs of the participants were immediately processed using the existing templates for each of the tool. The results were presented in the morning of the second day and action planning is done in the afternoon to identify activities to address the issues and parameters that the PA has not achieved during the assessment period. The workshop design is attached Appendix 3.

The assessment for the ENTMRPA was done in El Nido Multipurpose Hall, Poblacion, El Nido, Palawan on October 4-5, 2016. It was joined by 46 participants in the first day and 35 participants joined the second day based on the attendance sheet which is composed of staff of the Protected Area Office, DENR, Facilitators and Observers including the Municipal Mayor who graced the event and provided an update on the LGU's agenda on the protected area management. Twenty (20) participants submitted METT forms but the four participants did not complete scoring the issues/criteria in the assessment form. Five (5) participants were present during the 2014 assessment but one of them did not complete the assessment of issues/criteria.

Table 5: METT assessors for ENTMRPA METT assessment conducted in 2016.

Name	Position	Remarks
1. Arvin Acosta	NMO- Tourism	Answered the 2016 METT
2. Valiant Najib A. Eresuela	Representative, Department of Education	Did not complete the 2016 METT
3. Tany Distal	Representative, MTC	Did not complete the 2016 METT
4. Maria Victoria Matillano	WWF Representative	Answered the 2016 METT
5. Paquito Luto	Barangay Representative, Mancal	Answered the 2016 METT
6. Maria Leony Guzman	Barangay Kagawad	Answered the 2016 METT
7. Cabezas Antonio	Barangay Representative, Bebeladan	Did not complete the 2016 METT
8. Rodante Reynoso	Barangay Kagawad	Did not complete the 2016 METT
9. Josie Sadon	Barangay Representative, Villa Paz	Answered the 2016 METT
10. Meriam Arsaga	Municipal Planning and Development Office, El Nido	Answered the 2016 METT
11. Dominador Peñaranda	MFARMC Representative	Answered the 2014 and 2016 METT
12. Ruben V. Arsaga	Representative, Villa Libertad	Attended the 2014 assessment but did not complete the assessment of issues/criteria and answered the 2016 METT
13. Jenuel P. Casel	Representative, Protected Area Office	Answered the 2014 and 2016 METT
14. Alexander Mancio	DENR-CENRO Representative	Answered the 2014 and 2016 METT
15. Jose Alferez	Representative, El Nido Foundation	Answered the 2016 METT
16. Hermelina Bonagua	Barangay Representative, Cataban	Answered the 2016 METT
17. Isidro Bacaltos	Punong Barangay	Answered the 2016 METT
18. Raquel Aguilar	Barangay Representative, Masagana	Answered the 2014 and 2016 METT
19. SPO2 Jaison Kahilig	PNP-El Nido	Answered the 2016 METT
20. Lucia Anastacio	Punong Barangay	Answered the 2016 METT

The assessment for the TRNP was done in Marianne Hotel, Abueg Road, Brgy. Banca-Banca, Puerto Princesa City, Palawan on October 6-7, 2016. It was joined by 26 participants in the first day and 23 participants joined the second day. Twenty (20) participants submitted the METT assessment form, however, one of them was not able to complete the assessment. Two of the participants participated in the 2014 METT assessment.

Table 6: METT assessors for TRNP METT assessment conducted in 2016.

Name	Position	Remarks
1. Mary Grace Barber	TMO Staff	Answered the 2014 and 2016 METT
2. Mateo F. Buncag, Jr.	TMO Staff	Answered the 2016 METT
3. Wilfredo C. Rama	PAMB Member	Did not complete the 2016 METT assessment
4. Roy Magbanua	TMO Staff	Answered the 2016 METT
5. Conales Segundo F. Jr.	TMO Staff	Answered the 2014 and 2016 METT
6. Zanie Seracarpio	TMO Staff	Answered the 2016 METT
7. Angelique Songco	PASu	Answered the 2014 and 2016 METT
8. Cresencio Caranay Jr.	TMO Staff	Answered the 2016 METT
9. Glenda G. Simon	TMO Staff	Answered the 2014 and 2016 METT
10. Jeric F. Dejucos	TMO Staff	Answered the 2014 and 2016 METT
11. Jumaiyah Macalabo-Sobere	TMO Staff	Answered the 2016 METT
12. Edora Mae Ubani	TMO Staff	Answered the 2016 METT
13. Bundal Harvey	TMO Staff	Answered the 2016 METT
14. Marivel P. Dygico	WWF Representative	Answered the 2014 and 2016 METT
15. Terry Aquino	TMO Staff	Answered the 2016 METT
16. Gerlie Gedoria	TMO Staff	Answered the 2014 and 2016 METT
17. Maria Retchie Pagliawan	TMO Staff	Answered the 2014 and 2016 METT
18. Emmalyn Tura	TMO Staff	Answered the 2016 METT
19. Alarcon Rowell Cayan	TMO Staff	Answered the 2016 METT
20. Rosalie Ann Tarrobago	TMO Staff	Answered the 2016 METT

The assessment for the TIWS was done in Golden Valley Hotel, Cebu City on November 7-8, 2016. It was joined by 18 participants in the first day and 17 participants joined the second day. Seven (7) participants submitted the METT assessment form and all of them completed the scoring. Only one participant scored METT in both 2014 and 2016 assessments.

Table 7: METT assessors for TIWS METT assessment conducted in 2016

Name	Position	Remarks
1. Minda Bairulla	PASu	Answered the 2014 and 2016 METT
2. Junnibert Tubo	Representative, Naval Force West Mindanao	Answered the 2016 METT
3. Benie C. Oliveros	Municipal Mayor, Turtle Islands	Answered the 2016 METT
4. Sonny Musilim	Municipal Planning and Development Coordinator, Turtle Islands	Answered the 2016 METT
5. Fernando Samimi	Assistant PASu	Answered the 2016 METT
6. Pablo delos Reyes, Jr.	DENR-BMB	Answered the 2016 METT
7. Dr. Macmod Mamalangkap	Bureau of Fisheries and Aquatic Resources (BFAR)	Answered the 2016 METT

V. Management Effectiveness Assessment Results

A. Common Threats among the PAs in the ST-MPAN in the Philippines

Based on the assessment using METT, the most common threat among the three PAs in the ST-MPAN in the Philippines is “garbage and solid waste”. The two PAs (ENTMRPA and TIWS) with landscape are threatened with the increasing number of “housing and settlement” coupled with “household sewage and urban wastewater” and “sewage and wastewater from PA facilities” inside the PA. The two PAs (TRNP and ENTMRPA) with well-known tourist attractions are also threatened with the unmanaged effects of “tourism & recreation infrastructure”. The island PA and the PA with atolls are now threatened with erosion. “Fishing, killing, and harvesting aquatic resources” are common threat to TIWS and TRNP.

Table 8: Threats in the three PAs of ST-MPAN in the Philippines

	PROTECTED AREA THREATS	ENTMRPA	TRNP	TIWS	TOTAL
1	9.4 Garbage and solid waste	1	1	1	3
2	1.1 Housing & settlement	1	0	1	2
3	1.3 Tourism & recreation infrastructure	1	1	0	2
4	10.4 Erosion and siltation / deposition	0	1	1	2
5	5.4 Fishing, killing, and harvesting aquatic resources	0	1	1	2
6	9.1a Household sewage and urban wastewater	1	0	1	2
7	9.1b Sewage and wastewater from PA facilities	1	0	1	2

B. Management Effectiveness of the three PAs in the ST-MPAN in the Philippines

B.1 Assessment Results using METT

Two of the three PAs (ENTMRPA, 65% and TIWS, 56%) in the ST-MPAN in the Philippines have achieved effectiveness rating below the average of 71%. The TRNP, on the other hand, achieved an effectiveness rating which is far above the average with 92%.

The table below shows that TRNP has the highest percentage scores while TIWS achieved the lowest percentage scores. Both ENTMRPA and TIWS do not have a gazetted legal basis which in the context of the NIPAS Act, all PAs should be declared by the Congress through an approved Republic Act, unlike that TRNP which was declared under Republic Act 10067 in 2010. However, the two MPAs have been included in the House Bill 177 which lumps the legal basis of 101 PAs in the country and Senate Bill No. 2712 with 97 PAs referred to as the Expanded NIPAS Act or e-NIPAS.

The TRNP has ensured that its general management plan (GMP) is periodically reviewed, updated and adopted by PAMB through a resolution. Aside from the GMP, the TRNP has developed specific plans such as Communication Plan, Enforcement Plan and Risk Reduction Plan. The ENTMRPA and TIWS have updated their respective GMP adopted by PAMB but the need to refine the plan to detail specific and site-based issues.

Each MPA also have different experiences in terms of financial inputs from the national and local governments. The TNRP through the Tubbataha Management Office (TMO) continues to access external funding for its management activities; while the ENTMRPA has a secured budget from the 10% collection of Eco-Tourism Development Fund (ETDF) in partnership with the local government unit of El Nido. ENTMRPA has accessed its IPAF allocation for activities of the PA. Unfortunately, the inputs in TIWS are very low with funds coming from the regular funds of the DENR which covers only personnel cost and minimal transportation and communication expenses. Financial assistance from the local government of Turtle Islands is limited to a few activities only. The livelihood project for women, youth and fishers is provided by the Conservation International (CI) through its Coral Triangle Support Partnership (CTSP) project. Currently, ADB RETA 7813 is providing technical livelihood assistance to the women and youth organizations producing recycled woven products and souvenir items.

Table 9: Percentage scores of the three PAs in the ST-MPAN in the Philippines (METT 2016)

IUCN-WCPA Elements	ENTMRPA	TRNP	TIWS
Context	69%	98%	67%
Planning	74%	98%	62%
Inputs	62%	79%	45%
Process	57%	94%	54%
Outputs/Outcome	74%	96%	70%
Effectiveness Rating	65%	92%	56%

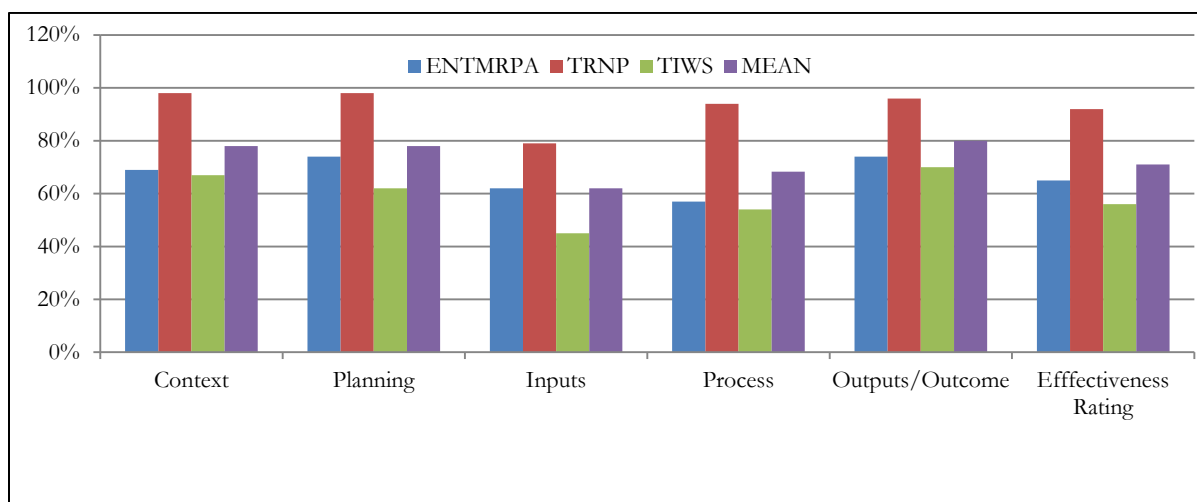


Figure 2: Assessment Results using METT

B.2 Assessment Results using MEAT

The results of the assessment using MEAT shows that the three PAs are effectively managed, which means these PAs have achieved the parameters and thresholds of Level 2. Two PAs satisfied the requirements of a “strengthened MPA” or Level 2 while the other PA is effectively institutionalized satisfying the requirements of Level 4.

The TRNP has achieved all of the 48 parameters both the thresholds and the simple criteria of MEAT. The last parameter which is on financial sustainability of the PA, the TRNP scored “3” because of the TMO has been continuously operating and conducting daily activities of the PA such as enforcement, awareness campaign, research and other management activities with continuous funding from various sources. Recently, the TMO secured a funding from Pilipinas Shell Foundation, Inc.

The ENTMRPA and TIWS, on the other hand, achieved the parameters under Level 1 and Level 2. These two MPAs have conducted baseline assessments which were the basis for the drafting of their respective management plan adopted by their respective PAMB. On the legal basis of the two PAs, the presidential proclamations legitimized their operation and enforcement. Both were part of the proposed expanded NIPAS which is still senate and house bill.

The enforcement activities in the ENTMRPA and TIWS are actively undertaken. Surveillance and patrolling are conducted by PNP in coordination with the Barangay Officials in ENTMRPA and the Coast Guard, Philippine Navy and Philippine Marines in TIWS. The PA rangers are also actively joining the patrol activities.

The ENTMRPA and TIWS are also documenting the violations. The reports of the Philippine Navy and Philippine Marine are considered as documentation of violations in TIWS. The documentation of violations in ENTMRPA is also undertaken by the Philippine National Police. Both have already penalized violators such as the Chinese poachers in TIWS and violations in ENTMRPA which are reported to the Palawan Council for Sustainable Development (PCSD).

Table 10: MEAT Results 2016 for the three PAs of the ST-MPAN in the Philippines

Name of PA	Total Score	Level Achieved	Descriptive
ENTMRPA	59	Level 2	MPA is strengthened (Very Good)
TRNP	84	Level 4	MPA is effectively institutionalized (Excellent)
TIWS	67	Level 2	MPA is strengthened (Excellent)

C. Trends in Management Effectiveness of the PAs in the ST-MPAN in the Philippines

C.1 Trends using METT

The percentage scores of the METT in two of the PAs have decreased minimally. For the TRNP, the total scores of 2014 and 2016 are the same at 97 total average scores. However, in the 2014 assessment, the assessor did not include item no. 22 which is “state and commercial neighbours”. In the 2016 assessment, this

item was considered. The neighbors referred to was the Provincial Government of Palawan and Municipality of Cagayancillo. There has been memoranda of agreements with the dive boat operators which is considered in this item.

The TIWS assessment shows a slight increase in the percentage score from 2014 (51%) to 2016 (56%). With the perspective from the representative of Philippine Navy, the enforcement aspect of the assessment became clearer in terms of patrolling and surveillance.

The ENTMRPA, however, is showing a steady pace of improvement in its METT scores since 2011 with percentage scores from 50% in 2011, 60% in 2014 and 65% in 2016.

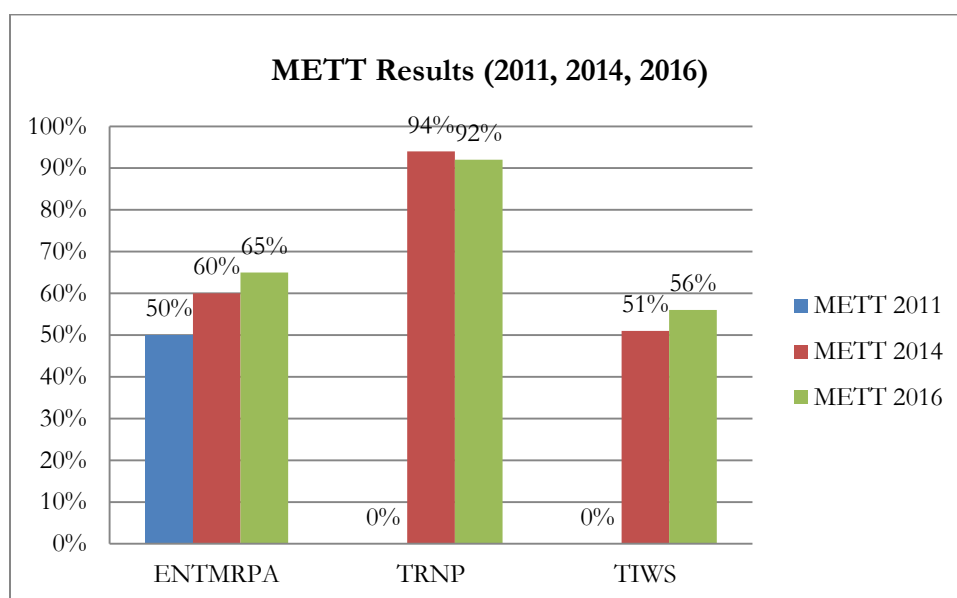


Figure 3: Total Average Percentage Scores of the three PAs in ST-MPAN in the Philippines

C.2 Trends using MEAT

The 2016 assessment results show a relative improvement in the management effectiveness level of the PAs compared to the last assessment results using the MEAT. All of the three PAs levelled up their management effectiveness from Level 1 to Level 2. The presence of the representatives from the Philippine National Police/Philippine Navy in the assessment workshop has provided law enforcement perspective in the scoring of the MEAT.

For the TRNP, the management staffs were convinced that since the PA has been continuously operating for two decades now, the PA is financially self-sufficient.

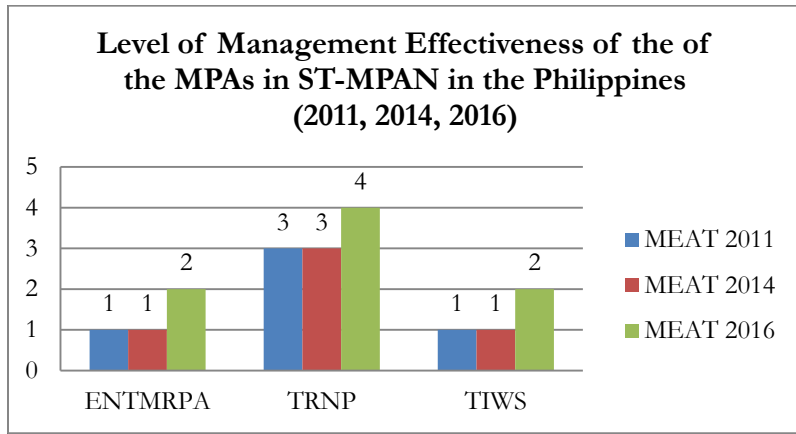


Figure 4: Level of Management Effectiveness of the three PAs in the ST-MPAN in the Philippines

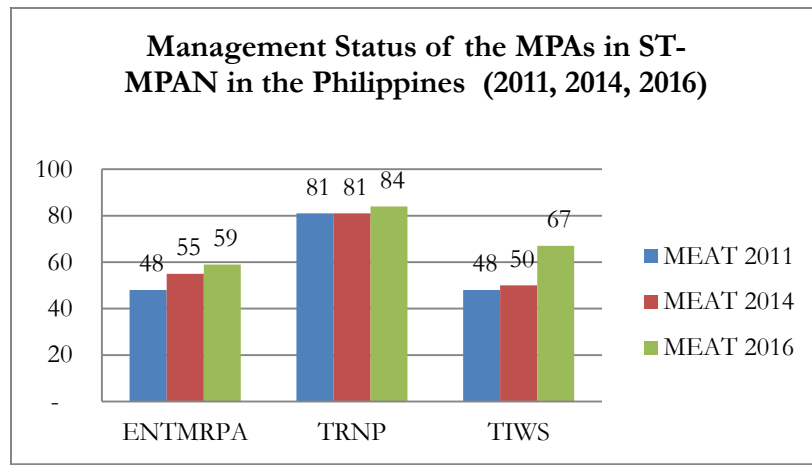


Figure 5: Management Status of the three PAs in the ST-MPAN in the Philippines

VI. Management Effectiveness Assessment Results in ENMRPA

The ENMRPA consists of 54,192.6 hectares of marine area and 36,128.4 hectares of land or a total of 89,134 hectares. It became part of NIPAS through Presidential Proclamation 32 dated October 8, 1998. This 18 year old protected area covers 18 barangays of the first class municipality of El Nido and three (3) barangays of Taytay. It is a home to endemic and endangered species such as Palawan Peacock Pheasant and Palawan Racquet-tail; and charismatic megafauna such as marine turtles and dugong.

The vision of ENTMRPA is as follows:

A community that is healthy and peaceful, enjoying equality and an improving but sustainable quality of life, respectful of the integrity of the environment and its natural life forms and citizens who are God-fearing, humane, and patriotic, acting with unity and increasing capabilities to create an ideal society for the next generation

The ENTMRPA became part of the ST-MPAN with the implementation of the project entitled “Development of a Network of Protected Areas to Safeguard Marine Turtles and their Habitats in the SSME Focusing on Connectivity and Climate Change”.

A. METT Results 2016

With the current development trends in the municipality of El Nido, becoming the popular tourist destination in the Philippines, the protected area particularly at the town center is faced with a number of threats that may affect the natural resources. In the 2016 assessment of threats in the ENTMRPA, the PAMB members are apprehensive of the growing commercial areas particularly tourism-driven establishments that may affect the landscape of the protected area. The increasing density of these establishments may increase the vulnerability of the area in terms of coastal integrity. But the most obvious and readily noticeable effect of this development is its impact on the capacity of the municipality to manage the pollution from these establishments such as the sewerage and drainage system, garbage and solid wastes.

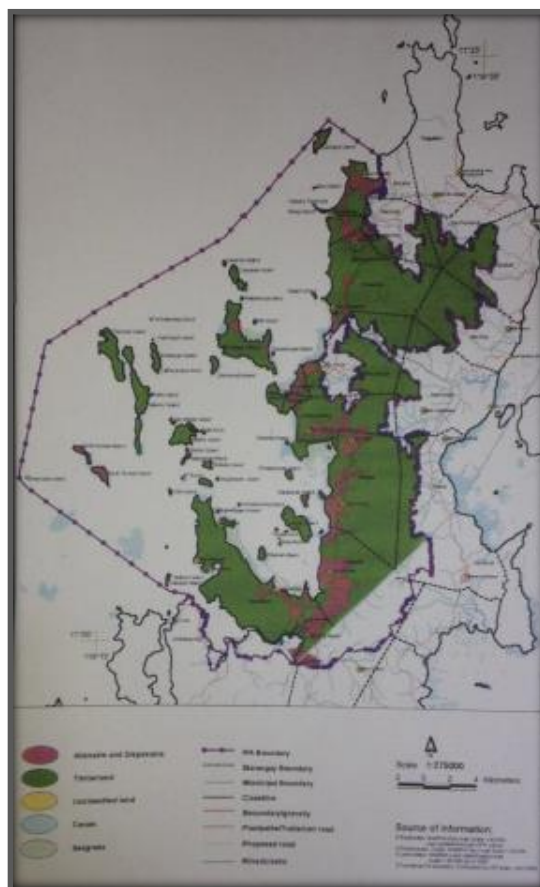


Figure 6: Map showing the boundaries of ENTMRPA

Relating to the increase in commercial establishments is the supply of construction materials particularly sand and gravel which is currently being sourced out along the rivers in the protected area. Although these are only on a small scale (i.e. average of 3 tons per day), the PAMB members are equally apprehensive of its effect to the natural course of the rivers.

Table 11: Top 10 threats rated as “High” based on the METT

PROTECTED AREA THREATS		High	Medium	Low	No Data	Not Applicable
1.	1.2 Commercial and industrial areas	11	4	3	1	0
2.	9.1a Household sewage and urban wastewater	10	4	6	0	0
3.	1.1 Housing & settlement	9	7	2	0	0
4.	1.3 Tourism & recreation infrastructure	9	6	4	0	1
5.	9.4 Garbage and solid waste	9	8	3	0	0
6.	3.2 Mining/quarrying	7	3	5	0	4
7.	5.3 Logging and wood harvesting	7	7	5	0	1
8.	2.1a Utilization of portions of PA to upland vegetable & other agricultural crop farms	5	9	6	0	0
9.	9.1b Sewage and wastewater from PA facilities	5	7	5	2	1
10	2.1b Illegal drug cultivation	4	0	1	10	4

Some members of the PAMB observed that most of the satellite towers of private telecommunication companies constructed their towers at the core zone wherein clearing of forest up to 30 square meters. Aside from this, *Kaingin* is still observed inside the PA which causes deforestation and decreasing of population of important species such as the Palawan hornbill.

Conversion of mangrove area to tourism areas is also seen as a threat that may increase the vulnerability of the area to the imminent effects of climate change and severe weather events. Frequent flooding is also observed in the highly populated areas in the Poblacion or urban center of the municipality. Effective infrastructure design of roads and drainages may help mitigate these threats.

Context

The ENTMRPA is being managed based on Presidential Proclamation No. 32. The Senate Bill 324 remains shelved since the last assessment. In lieu of this, the DENR is hoping that the Expanded National Protected Area System (ENIPAS) will further enhance the legal basis of the PAs in the country particularly those which have difficulty passing a law that encapsulates site-specific provisions of the PAs.

Planning

There is an existing General Management Plan which was updated by the DENR. This plan has to be presented to the PAMB in the next meeting for review and approval. The plan is expected to incorporate the identified activities in this assessment.

The annual work and financial plan, which is based on the available allocated budget is prepared by the DENR and endorsed by the PAMB. The 10% share of the PAMB in the ETDF is allocated by the PAMB/DENR on activities particularly on patrolling and IEC.

Inputs

Admittedly, the PAMB felt the lack of PA staff to assist them in the operations, management and activities of the PA. During the early implementation of the PA, the PA is fully supported by project-based technical staffs. Currently, the PA has only five (5) permanent staff including the Protected Area Superintendent (PASu) and three (3) project-based staff.

The PA has increased its budget allocation with the increase in the collection of ETDF. Aside from the ETDF, the PA continues to collect permit fees from various permittees within the PA. The permit fee collections are remitted to the national treasury as Integrated Protected Area Fund (IPAF). The PA is also able to access its IPAF allocation through a lengthy process that sometimes takes one to two years.

Process

Education and awareness programs of the PA are implemented in close collaboration with the LGU, NGOs such as El Nido Foundation and the tourism sector partners. This is shadowing from the IEC program undertaken by the NIPAP in early 2000's.

The boundaries of the PA remained the boundaries stated in the Presidential Proclamation. Some of the markers were not maintained particularly those in the marine areas. There is still a need to relocate the boundaries in the upland areas to establish and install boundary markers. As of this assessment, the map in Figure 1 is being used by the PA for identification of areas inside the PA.

Several researches have been conducted in the area, however, the PAMB members are proposing a research agenda that will capture the needed data and information for the effective protection and management of the PA.

Output/Outcome

Many of the PAMB members scored high on the output and outcome parameters of the METT. Most of them scored 2 on the items, “Economic Benefit”, “Condition of Values”, and “Visitor Facilities”. The visitor facility which is the PA Office located adjacent to the Municipal Hall is undergoing renovation funded by the Municipal Government.

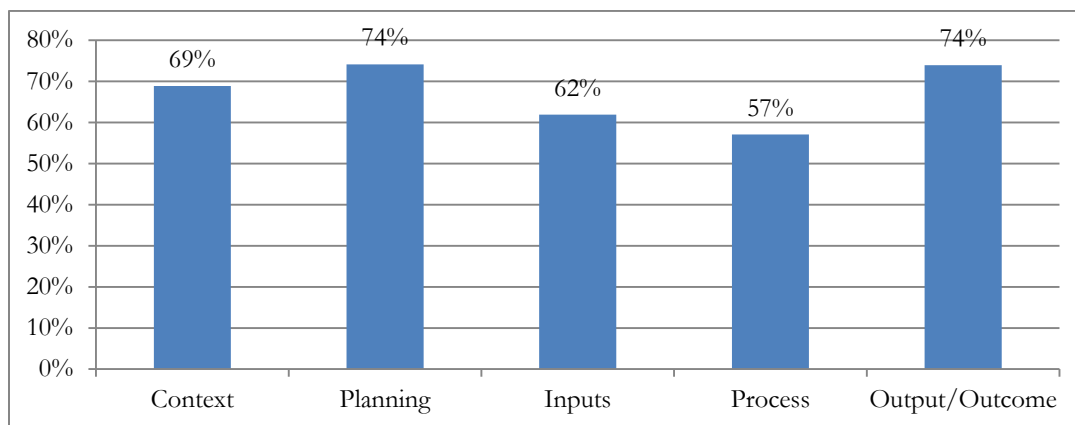


Figure 7: Percentage scores per IUCN-WCPA Element based on the METT response on ENTMRPA PAMB members for 2016

A.1 Comparative Analysis of METT Results

There is an increasing result in the overall METT Scores since 2011 from 50% to 65% this 2016. Planning and Output/Outcome are the two major criteria wherein the PA accomplished significantly with at least 24% between 2011 and 2014 and 16% increase in 2016. The increasing score can be attributed to the increased support of the local government unit in implementing the management activities of the PA such as the implementation of information awareness program, renovation of the PA Office cum visitor center.

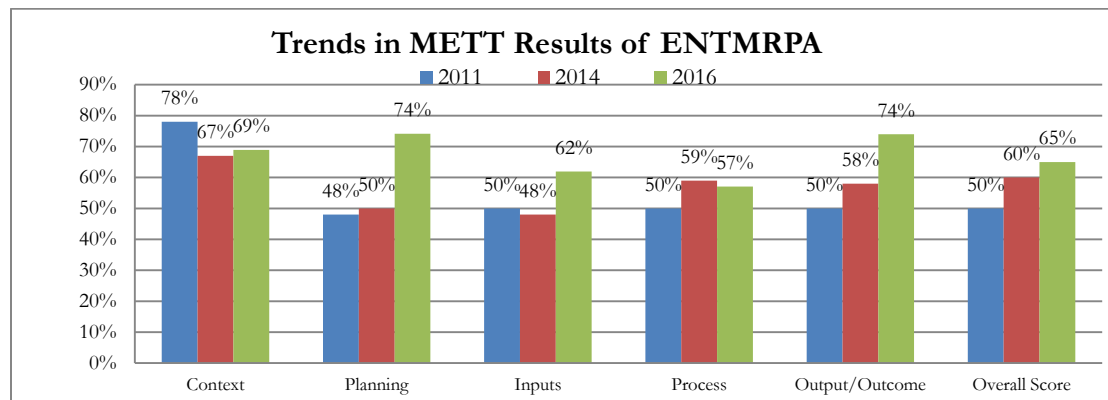


Figure 8: Trend in METT Results of ENTMRPA

A.2 Addressing the Threats and Issues in ENTMRPA

To reduce the threats and issues based on the METT assessment, the PAMB members crafted several strategies and actions that can be implemented in the next two to five years in the PA. These strategies are listed below.

Table 12: Action plan to reduce the threats of the PA

Threats	How to address these threats
1.2 Commercial and industrial areas	<ul style="list-style-type: none"> ✓ Proper implementation of management zones ✓ Compliance to Environmental Rules and Regulations ✓ Updating of PA Management zones (1st sem 2017) ✓ PAMB resolution requesting the LGU to support the Implementation of easement zone policy (3.0 meters from the highest high tide) ✓ PAMB resolution adopting PD 1067 Section 51 ✓ PAMB resolution requesting LGU to consider PAMB Clearance as prerequisite to land use conversion
9.1 Household sewage and urban wastewater	<ul style="list-style-type: none"> ✓ Implementation of wastewater treatment facility ✓ Regular inspection of septic / collection tanks ✓ Strict implementation of standard design for septic tanks (3 chamber type) c/o municipal engineering / sanitation office or PEC of PAMB ✓ Improvement of sidewalks/setback/drainage canals (1.5 meters both sides of road)
1.1 Housing & settlement	<ul style="list-style-type: none"> ✓ PAMB resolution requesting the LGU to activate the anti-squatting enforcement team. ✓ Establishment of relocation sites for informal settlers. ✓ Conduct of IEC activities on land use; Installation of land use map billboard in all barangays and other strategic areas ✓ Regular monitoring ✓ Case – filing (if necessary)
1.3 Tourism & recreation infrastructure (facilities/structures within tourism destination areas including floating stores)	<ul style="list-style-type: none"> ✓ Proper implementation of management zones ✓ Compliance to Environmental Rules and Regulations ✓ Updating of PA Management zones ✓ PAMB resolution requesting the LGU to support the Implementation of easement zone policy (3.0 meters from the highest high tide) ✓ PAMB resolution adopting PD 1067 Section 51 ✓ PAMB resolution requesting LGU to consider PAMB Clearance as prerequisite to land use conversion ✓ Conduct of IEC activities on land use; Installation of land use map billboard in all barangays and other strategic areas ✓ Revisit policy re municipal building code (not more than 2 storey)
9.4 Garbage and solid waste	<ul style="list-style-type: none"> ✓ Strict implementation of RA 9003 ✓ Seek / apply technologies and machineries relative to reusable/recyclable waste (eg. Glass bottles as construction material) ✓ Strict implementation of no-plastic-bag policy
5.3 Logging and wood harvesting	<ul style="list-style-type: none"> ✓ Adopt an Ordinance encouraging the use of steel materials for infrastructure/building projects ✓ Promote the use of planted trees
3.2 Mining/ quarrying	<ul style="list-style-type: none"> ✓ Determine quarry areas ✓ Regulate and monitor quarrying activities both small scale and large scale
2.1a Illegal drug cultivation	<ul style="list-style-type: none"> ✓ Monitoring

Threats	How to address these threats
2.1b Utilization of portions of PA to upland vegetable & other agricultural crop farms (as well as to residential)	<ul style="list-style-type: none"> ✓ IEC ✓ Case filing

On the issues that the PA fall short of accomplishment or achievement, the following actions are agreed by the PAMB members to undertake to be able to address the issues.

Table 13: Action plan to address the issues of the PA

Issue/Criteria	What needs to be done to address these issues
State and commercial neighbors	<ul style="list-style-type: none"> ✓ Formulation of MOA or Inter Local Government Cooperation between El Nido, Linapacan, Taytay, Roxas and San Vicente anent sharing of resources (supply & demand)
Protection System	<ul style="list-style-type: none"> ✓ Establishment/Installation of Ranger Station in different strategic areas with access to communication (radio & cellphone) and other enforcement facilities. (Cadlao) ✓ Need to clarify who will man the ranger should be based on ENILEC ✓ Capacity Building of the Staff and concern barangay officials. ✓ (training, lakbay aral, etc.) ✓ Provision & maintenance of enforcement support equipment & facilities. ✓ Strengthen and regularly monitoring within barangay level of all activities in their adjacent PA. e.g . Pasadenia
Maintenance of Equipment	<ul style="list-style-type: none"> ✓ Allocation of enough budget for the maintenance of equipment ✓ Formulate/device simple but effective preventive maintenance ✓ Follow also the manual/procedure for maintenance operation.
Equipment	<ul style="list-style-type: none"> ✓ Provision of Speed Boat (2016 budget) ✓ Provision of vehicles and motorcycles for monitoring & patrol ✓ Provision of Radio Communications (Base & Handheld Radio –GIZ project, cellphone with lawin application) ✓ Binocular telescope & Cameras (under water & snop Shots) ✓ Personal Protective Equipments (PPEs) ✓ Life and accident insurance ✓ High quality supplies and materials
Protected Area Boundary Demarcation	<ul style="list-style-type: none"> ✓ Revisit and validate the markings of the boundary based on the coordinates. ✓ Allocate budget
Resource Inventory	<ul style="list-style-type: none"> ✓ Conduct follow-up Resource Inventory to validate & update the data status
Resource Management	<ul style="list-style-type: none"> ✓ Inventory sightings of considered critical, endangered, threaten & nearly threaten species within PA ✓ Strict enforcement of rules & policies when confine to areas with sightings of wildlife species ✓ Strengthen IEC Campaign to Barangays, academe and other stakeholders

Issue/Criteria	What needs to be done to address these issues
Monitoring and Evaluation	<ul style="list-style-type: none"> ✓ Intensify the feed back mechanism of BMS Monitoring Results to PAMB Members during meeting to come up with remedial and long term solutions. ✓ Additional site BMS Monitoring ✓ Conduct Socioeconomic monitoring (CBMS)
Staff Number	<ul style="list-style-type: none"> ✓ Increase number of plantilla positions of PA staff ✓ Upgrading of competencies of staff such as, paralegal training, admin work, biophysical assessment & resource inventory ✓ Outsourcing of security agency as park security with arms ✓ Provide honorarium for volunteer enforcers

B. MEAT Results 2016

This monitoring and evaluation activity came up with the 2016 MEAT results which show that the ENTMRPA is now at Level 2 “Strengthened MPA” with a cumulative score of 59 which has a descriptive category of “Very Good”.

Based on the assessment, the ENTMRPA passed the criteria and thresholds of “Established” and “Strengthened MPA” achieving 100% of the maximum point in each level. The PA has strengthened its management body, which is the PAMB, on soliciting political support from the Provincial Government and initiating management activities for the protection and conservation of the PA. The management plan is also updated to capture the existing developmental trends in the adjacent sites or within the PA.

In terms of monitoring and evaluation, feedback mechanism is already in place through the barangay assembly meetings conducted by barangay officials who are also members of PAMB. On the aspect of enforcement, the barangay patrol/tanod, bantay-dagat with the Philippine National Police are conducting surveillance and patrol in strategic areas of the PA.

Awareness campaign continues with printing of tarpaulins, calendars and other materials that encourage the protection, conservation and sustainable management of the PA. With the influx of visitors in El Nido, the income of the PA has also increased. This 2016, the budget allocation of the PA was pegged at P4 million which is equivalent to 10% of the total collections from the ETDF.

The PA, however, was not able to achieved two thresholds of Level 3 or Sustained MPA and five (5) thresholds of Level 4 (Institutionalized MPA). These thresholds are the following:

A. Under Level 3:

- 3.1.4 Enforcement system fully operational
- 3.1.10 Violators prosecuted and sanctioned

B. Under Level 4:

- 4.1.2 MPA plan incorporated in broader plans
- 4.1.5 Impact Assessment Conducted
- 4.1.6 Performance Monitoring Linked to an Incentive System
- 4.1.7 IEC Sustained Over Seven Years
- 4.1.11 MPA Financially Self-Sustaining

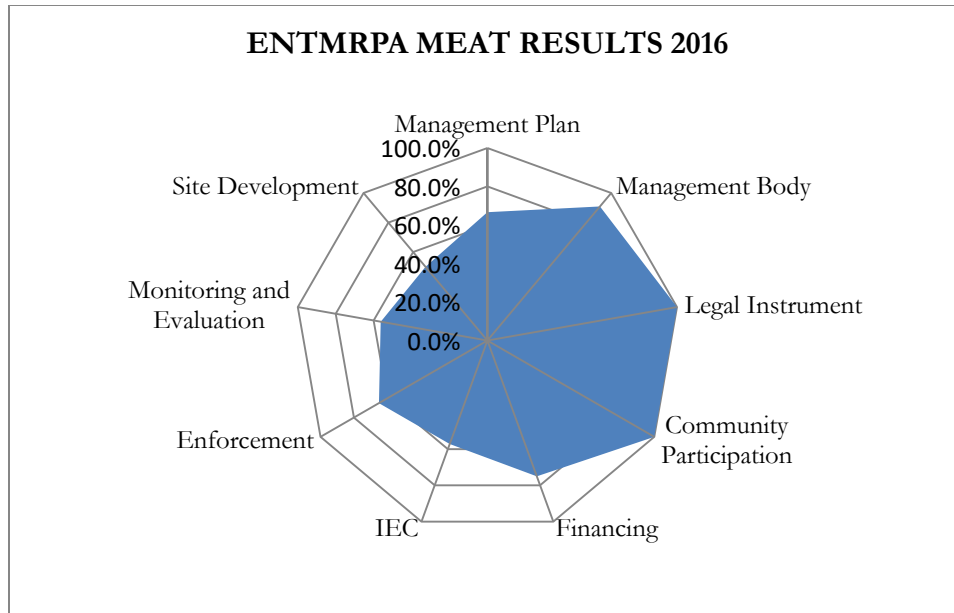


Figure 9: MEAT Results of ENTMRPA in 2016

B.1. Comparative Analysis of MEAT Results

Three runs of assessments using the MEAT had been undertaken in ENTMRPA. The first run was during the national benchmarking activity of the Coral Triangle Support Program funded by the United States Agency for International Development in 2011 while the second (2014) and third (2016) runs were undertaken through the Sulu Sulawesi Seascape project of the Biodiversity Management Bureau (BMB) of DENR and the German Technology Cooperation (GIZ).

The assessment results show a significant improvement in the management effectiveness of ENTMRPA in the last seven (7) years. As a benchmark in 2011, the PA achieved Level 1 with a cumulative score 48 achieving 57% of the 84 maximum points of the parameters of MEAT. In 2014, the PA Level remained at Level 1, however, it increased its score to 55 points which is 65% of the maximum score. A leap to the next level, Level 2 was reached by the PA in 2016 achieving Level 2 by addressing the parameters which are mostly on enforcement concerns. The total score has also increased to 59 points which is equivalent to 70% of the maximum score.

Table 14: Trend in the Management Status of ENTMRPA

MPA LEVEL	MANAGEMENT STATUS				Remarks to 2016 Assessment
	Maximum Points	Actual Score (2011)	Actual Score (2014)	Actual Score (2016)	
1 (Established)	27	27 (100%)	27 (100%)	27 (100%)	PASSED
2 (Strengthened)	15	11 (73%)	12 (80%)	15 (100%)	PASSED
3 (Sustained)	21	8 (38%)	12 (57%)	14 (66%)	Failed to meet threshold: 3.1.4 Enforcement system fully operational 3.1.10 Violators prosecuted and sanctioned
4 (Institutionalized)	21	2 (10%)	4 (19%)	3 (14%)	Failed to meet threshold: 4.1.2 MPA plan incorporated in broader plans 4.1.5 Impact Assessment Conducted 4.1.6 Performance Monitoring Linked to an Incentive System 4.1.7 IEC Sustained Over Seven Years 4.1.11 MPA Financially Self-Sustaining
TOTAL	84	48 (57%)	55 (65%)	59 (70%)	

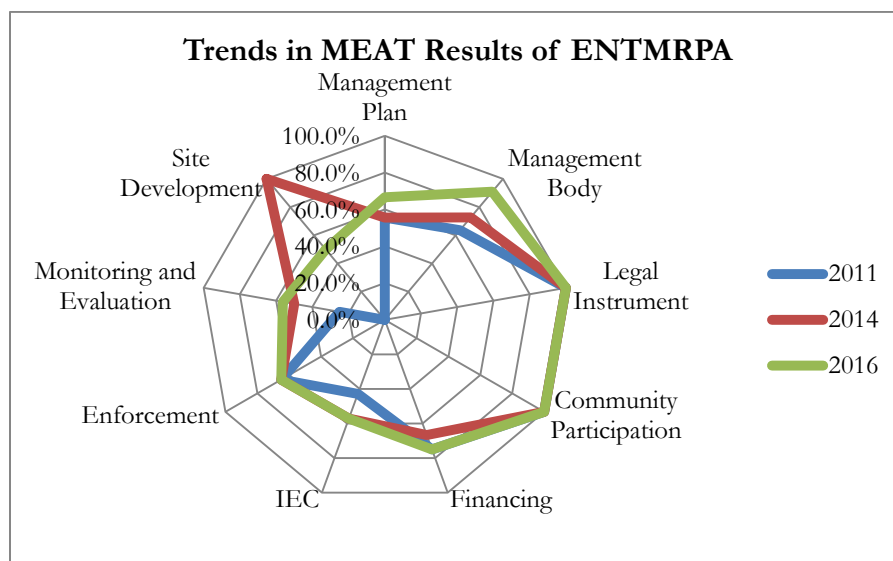


Figure 10: Trends in MEAT Results of ENTMRPA

B.2 Immediate Action Plan addressing the results of MEAT of ENTMRPA

To improve on the current status of the ENTMRPA, the PAMB members devise a plan based on the results of the MEAT. The action plan identifies the actions and activities needed to further strengthen the management effectiveness of the PA.

Table 15: Immediate Action Plan to Address the Thresholds

Thresholds that are not yet achieved in the 2016 assessment	What needs to be immediately done to meet these thresholds (2017-2018)
3.1.4 Enforcement system fully operation in the last 5 consecutive years	<ul style="list-style-type: none"> ✓ Reconvene/Revive the El Nido Law Enforcement Council (ENELEC) to assess and reformulate the law enforcement plan of the municipality ✓ Review and update the Manual of Operations
3.1.10 Violators prosecuted and sanctioned	<ul style="list-style-type: none"> ✓ Conduct Capacity building (Paralegal Training) for deputized enforcers ✓ Review/assess Quasi Judicial Proceedings to hasten the judicial process in the municipality ✓ Provide budgetary allocation for litigation process
4.1.2 MPA management plan incorporated in broader development plans	<ul style="list-style-type: none"> ✓ Undertake a harmonization mechanisms/process of Plans (CLUWP, GMP & other Plans)
4.1.5 Ecological and socio-economic assessment conducted	<ul style="list-style-type: none"> ✓ Conduct training on Biodiversity Monitoring System (BMS) for the core team members (multisectoral) ✓ Once a year conduct of BMS ✓ Request from DENR a standard/uniform tool of Socio-econ impact assessment of Pas
4.1.6 Performance monitoring and evaluation system linked to an incentive system	<ul style="list-style-type: none"> ✓ Provide monetary incentives and commendations for apprehensions ✓ Establish annual awards and recognition for outstanding PAMB members & enforcers
4.1.7 IEC sustained over 7 years	<ul style="list-style-type: none"> ✓ Formulation of 7-years IEC/ Communication Plan Plan ✓ Conduct of Periodic IEC Caravan ✓ Identification of IEC Focal person ✓ Conduct of IEC in the schools
4.1.11 MPA financially self-sustaining in the last 7 consecutive years	<ul style="list-style-type: none"> ✓ Sustain the implementation of IPAF through collection of approved fees and permits ✓ Sustain the collection of ETDF ✓ Review policies on other users fee

C. Priority Activities of ENTRMPA

To provide directions for the ENTMRPA in the next two years, the PAMB members came up with the priority activities which are deemed strategic in improving the management effectiveness of the PA. These activities are based on the results of both METT and MEAT.

Table 16: ENTMRPA Action Plan

Areas for Improvement/ Issue	Activities	Timeframe	Budget	Responsible Person
Updating of the GMP	Consolidation of secondary data; scoping of available information	4 th quarter 2016	P5,000	PAO; CLWUP TWG; Mun admin; PCSDS
	Vulnerability assessment	4 th Q 2016	P500,000	BMB CENRO; GIZ
	Consultative planning workshop (concerned agencies, prepare maps for zoning – define sub-zones)	1 st Q 2017	P100,000	PAMB CLWUP TWG; Mun admin; PCSDS; GIZ
	Writeshop (INCLUDE 5-YEAR PLAN)	1 st Q 2017	P100,000	PAMB; CLWUP TWG; Mun admin; PCSDS (with legal dept); GIZ
	Presentation of the draft GMP with zones for public hearing	2 nd Q 2017	P100,000	Barangay level
Re-activation of ENELEC	Updating or review of Enforcement plan and manual of operations (writeshop)	1st Q 2017	P100,000	LGU
	Drafting of executive order reactivating the ENELEC	1st Q 2017		LGU
	Para-legal training for the enforcement team	1st Q 2017	P100,000	LGU, GIZ, PCSDS
	Drafting of appointment order of enforcement officers	1st Q 2017		LGU, DENR
	Provision of logistics support(paraphernalia, insurance, honoraria)	2 nd Q 2017	P1,000,000	LGU, DENR
Strengthen IEC program	Creation of IEC team	1st Q 2017	P50,000	PAMB
	Drafting of communication plan	1st Q 2017	P100,000	PAMB and composite team

VII. Assessment Results of TRNP

One of the oldest marine protected areas in the Philippines, the TRNP was established in 1988 which is four years before the enactment of the NIPAS Act of 1992. It expanded its core zone from 33,200 hectares to 96,828 hectares based on Presidential Proclamation 1126 in 2006. It was declared as protected area by Congress through Republic Act 10067 dated April 6, 2010 which increased the area to 97,030 hectares.

This World Heritage Site, which is also an ASEAN Heritage Park, is located 80 nautical miles southeast of Puerto Princesa City in the province of Palawan. It has two (2) uninhabited atolls, the North and South Atolls. It included an additional 10 nautical miles buffer zone from the park boundaries to be able to effectively protect its critical habitat for 360 species of corals, 7 species of seagrass, 66 species of algae, 600 species of fish, two (2) species of marine turtles, 13 species of marine mammals, 19 species of rays and sharks and two (2) bird species (both endemic and critically endangered bird species).



Figure 11: Map showing the boundaries of TRNP

The vision of the TRNP is as follows:

A World Heritage Site that is effectively conserved to maintain ecological integrity contributing to the equitable distribution of benefits and sustained socio-economic development of present and future generations.”

A. METT Results 2016

The highest threat perceived by the PAMB and the Tubbataha Management Office (TMO) staff is coastal erosion which is observed in the two atolls brought about by strong wave action. Research, education and other work-related activities pose a high threat to the PA because of the need to strictly implement the research guidelines of the PA. Adjacent to the navigational lanes, the PA staff and the PAMB members are still apprehensive of the potential threats coming from passing shipping vessels. Garbage and solid wastes is a perennial problem in the coastal and marine areas and the offshore PA as TRNP is not spared from these marine debris.

Because of coastal erosion and loss of vegetation, the PA is now experiencing a habitat alteration with the increasing population of black noddy within the areas near the ranger station. In addition, the parasites associated with the black noddy are also infesting skin disease among the PA personnel in the ranger station.

Discharges from shipping vessels are also seen as threats to the PA. This not only associated with the shipping lane but also with the visiting boats in the PA.

Table 17: Top 10 threats rated as “High” based on the METT

	PROTECTED AREA THREATS	High	Medium	Low	No Data	Not Applicable
1	10.4 Erosion and siltation / deposition	14	4	1	0	1
2	6.3 Research, education, and other work-related activities	8	0	8	1	1
3	4.3 Shipping lanes and canals	6	1	9	0	2
4	9.4 Garbage and solid waste	6	2	7	0	4
5	11.1 Habitat shifting and alteration	6	2	10	1	1
6	11.3 Temperature extremes	6	2	11	0	0
7	9.2 Industrial, mining and military effluents and discharges	3	2	6	0	9
8	11.4 Storms and flooding	3	3	10	2	0
9	5.4 Fishing, killing, and harvesting aquatic resources	2	1	10	1	5
10	11.2 Droughts	2	2	9	0	7
11	1.3 Tourism & recreation infrastructure	1	0	5	0	13

Context

The Republic Act 10067 ascertained the legal basis of the TRNP. It also has the Implementing Rules and Regulations that details policies and regulations pertaining to the management and protection of the PA.

Planning

The PAMB and TMO periodically review and update the management plan of TRNP. The latest approved general management plan is for 2015-2021. The Universal Outstanding Value tool is now being used to assess the PA’s management effectiveness.

The TRNP, through several technical assistance from its partners, has developed various plans such as Compliance and Enforcement Plan, Communication/IEC Plan, Sustainable Tourism Plan, Emergency Risk Reduction Plan, among others.

Inputs

The security of budget remains a haunting predicament among the TMO staff. Although the PA has received a number of grants from different partners intended to specific activities and programs, there was no specific source of fund that is specifically designed to sustain its administrative requirements. As such, most of the TMO staff do not have security of tenure because most of them are project-based staff. The TRNP, unlike other PAs in the Philippines do not have annual allocations directly from the General Appropriations.

The user fees/conservation fees from dive enthusiasts who visits the PA annually is the main source of operational funds of the PA.

Process

The boundaries of the PA have been established in the NAMRIA map and in the navigational maps available in the country. The assignment of the PA as a particularly sensitive sealane area is being processed to reduce the potential threats brought about by shipping and navigation.

Output/Outcome

The assessment of the TRNP using the Universal Outstanding Value tool shows that the values of the PA are rated “Very Good” with an increasing trend.

The facilities of the PA are being upgraded such as the construction of modern ranger station. Twenty-one (21) mooring buoys were also provided for boats anchoring in the PA.

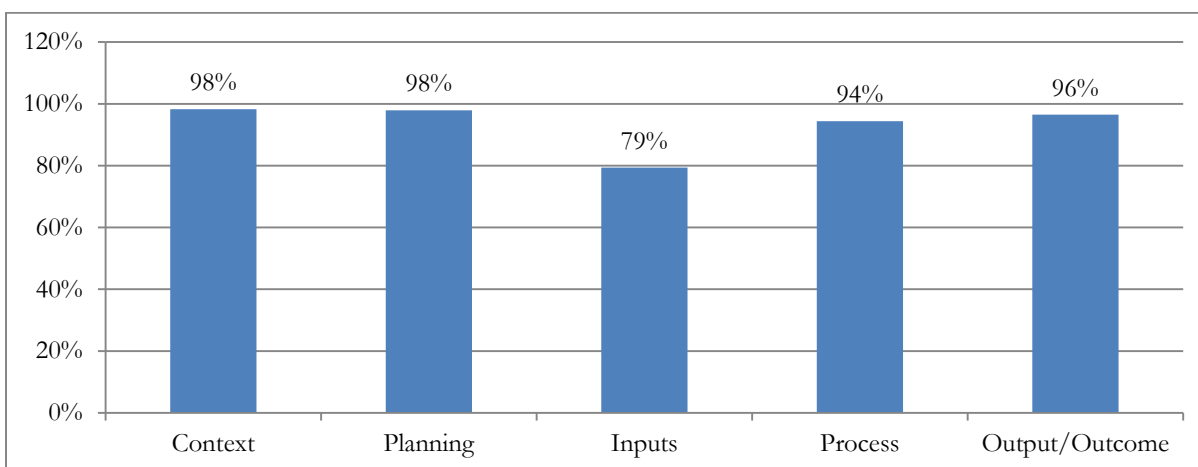


Figure 12: Percentage scores per IUCN-WCPA Element based on the METT response on TNRP PAMB members for 2016

A.1 Comparative Analysis of METT Results

The METT results of the TRNP for two consecutive assessment period (2014 and 2016) show a very slight difference in the scores. The 2% difference in the context is attributed to the answer of a newly appointed PAMB member who scored only 2 in the criteria of “Legal Status”. Under the planning element, more respondents in this assessment (2016) scored “2” in the criteria of “PA regulations”. This is attributed to the qualifying statement which is now added in the METT to wit: “Regulations specific for the area and key threats to its key features but are not based upon carrying capacity for extraction & pollution”.

On the overall percentage score, the 2014 assessor considered the item “State and commercial neighbors” as not applicable. In the 2016 assessment, the item was considered because the qualifying statement is applicable to the PA to wit: “There are MOA’s/agreements with at least 20% of LGUs and 1 of the top 5 corporate users”. The respondents mentioned that the PA has agreements with major dive operators visiting the PA.

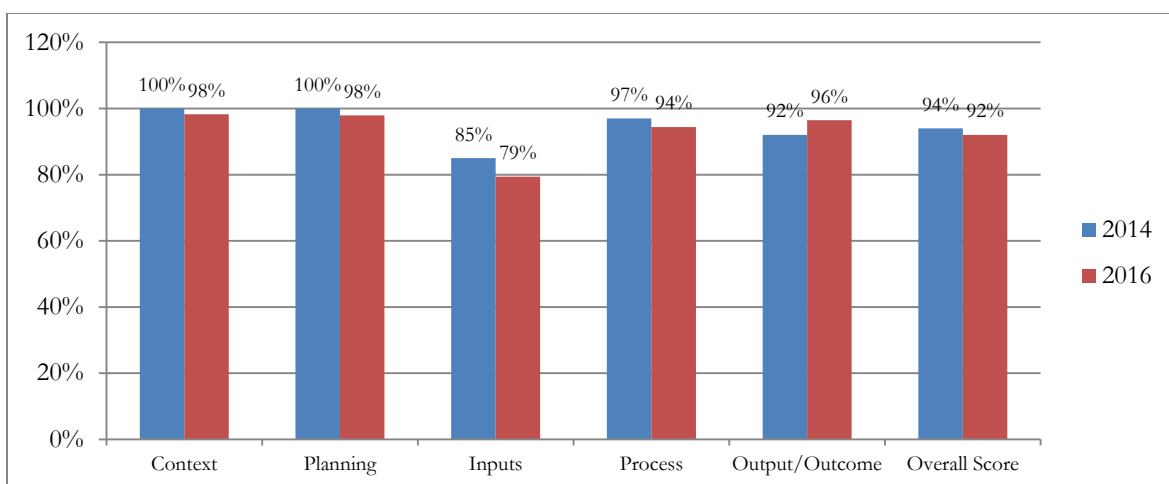


Figure 13: Comparative Analysis of the METT Results of TRNP in 2014 and 2016

A.2 Addressing the Threats and Issues in TRNP

To reduce the threats and issues based on the METT assessment, the PAMB members and the TMO staff crafted several strategies and actions that can be implemented in the next two to five years in the PA. These strategies are listed below.

Table 18: Action Plan to address the threats in TRNP

Threats	How to address these threats
10.4 Erosion and siltation / deposition	✓ Study of mitigating measures, and implementation of the measures identified
6.3 Research, education, and other work-related activities	✓ Update the research plan to include the research guidelines from the IRR
9.4 Garbage and solid waste	<ul style="list-style-type: none"> ✓ Analyze the waste classification data (marine debris), ✓ Policy recommendation based on the output of the study ✓ Incorporate these topics in the IEC plan with M&E for effectiveness: fishermen on marine debris , dive boats on Bring Your Own Bottle (BYOB), no use of plastic water bottles
4.3 Shipping lanes and canals	✓ Follow up the inclusion of the TRNP area as particularly sensitive sea area (PSSA)
11.1 Habitat shifting and alteration	<ul style="list-style-type: none"> ✓ Identification of response to the associated diseases brought by the movement of Black Noddy ✓ Study on the parasite of black noddy ✓ Assisted regeneration should be monitored and recorded (survival rate and growth rate) ✓ Study on measures to respond to the loss of vegetation (assisted regeneration)

Threats	How to address these threats
11.3 Temperature extremes	<ul style="list-style-type: none"> ✓ Coordinate with DOST for the weather station check up ✓ Install data loggers
9.2 Industrial, mining and military effluents and discharges	<ul style="list-style-type: none"> ✓ Water quality monitoring ✓ Use of drone for documenting discharges from boats (further review)
11.4 Storms and flooding	<ul style="list-style-type: none"> ✓ Construct new ranger station
5.4 Fishing, killing, and harvesting aquatic resources	<ul style="list-style-type: none"> ✓ Increase detection capability through equipment and capacity building eg: radar upgrade

Table 19: Action to address the issues in TRNP (METT 2016)

Issue/Criteria	What needs to be done to address these issues
Security of Budget	<ul style="list-style-type: none"> ✓ Increase of entrance fee ✓ Carrying capacity study/limits of acceptable change study(LAC) to determine the scale of tourism industry, acceptable number of visitors <Refer to the business plan>
Resource Inventory	<ul style="list-style-type: none"> ✓ Biodiversity assessment ✓ Baseline study on commercially important species ✓ Expand network with the academe to implement species-specific research ✓ Capacity building on research eg: taxonomy
Current Budget	See actions on the security of budget
Law Enforcement	<ul style="list-style-type: none"> ✓ Increase detection capability through equipment and capacity building eg: radar upgrade and continuing IEC for compliance of rules and regulations ✓ Compliance management plan development
Equipment	<ul style="list-style-type: none"> ✓ Upgrade the radar, communication equipment
Indigenous People	<ul style="list-style-type: none"> ✓ Possible representation in the PAMB as organized formal IP group
Staff Number	<ul style="list-style-type: none"> ✓ Need to file declaratory relief to establish institutional identity of TMO, decision will be the basis for plantilla positions
Protected Area Regulations	<ul style="list-style-type: none"> ✓ Carrying capacity study/limits of acceptable change study (LAC) to determine the scale of tourism industry, acceptable number of visitors <Refer to the business plan>

B. MEAT Results 2016

The 2016 assessment results show 100% accomplishments of the parameters of the MEAT achieving Level 4 with an outstanding score of 84 points out of 84 maximum points of the tool. The Tubbataha Management Office Staff, PAMB members and the Protected Area Superintendent agreed that the TRNP is now financially self-sustaining considering that the TMO has been continuously operating and functional since 2001. Aside from its regular funding from the Office of the Governor and the Department of Environment

and Natural Resources, the TMO has signed an agreement with the Philippines Shell Foundation, Inc. providing a 5-year funding for TRNP operations through the “Project Sustaining Conservation Gains in the Tubbataha Reefs Natural Park”.

Continuous patrolling and surveillance activities have been regularly conducted by the TMO since 2001. As a result of these enforcement activities, the latest record shows that 66 cases of violators were convicted; 3 cases were acquitted, 18 cases were dismissed, and 15 cases are still pending.

The TRNP has gained not only national recognition but an international recognition as a World Heritage Site. It received several awards including the Special Awards during the PARA El Mar and PAMBihirang Award.

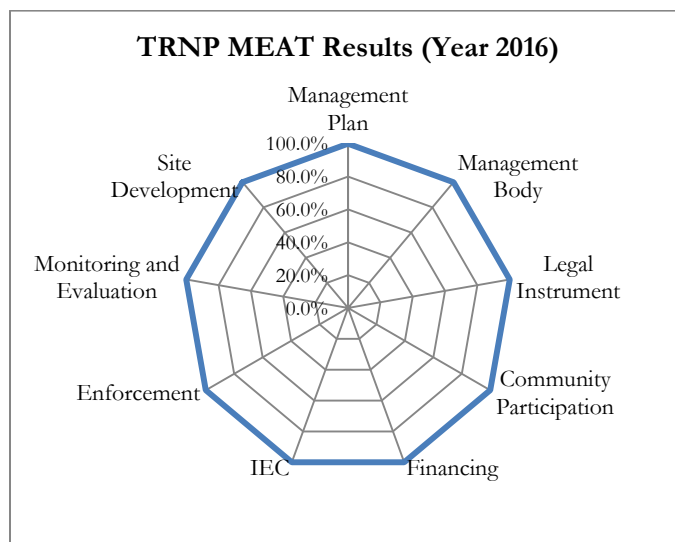


Figure 14: MEAT Results in TRNP (2016)

B.1 Comparative Analysis of MEAT Results

The MEAT was run in TRNP for three periods. The first and second run achieved the same result as “Level 3” or “MPA is sustained” with the same total score of 81 or a descriptive category of “Excellent”. The only parameter that was not attained by the TRNP is the last parameter in the tool which is “4.1.11. MPA Financially Self-Sustaining in the Last Seven Consecutive Years.” In this assessment (2016), the PAMB members and TMO staff came up with a consensus that the last parameter is already achieved because the PA has been successfully operating and maintaining the PA in the last two decades.

Table 20: Trend in the Management Status of TRNP

MPA LEVEL	MANAGEMENT STATUS				Remarks to 2016 Assessment
	Maximum Points	Actual Score (2011)	Actual Score (2014)	Actual Score (2016)	
1 (Established)	27	27 (100%)	27 (100%)	27 (100%)	PASSED
2 (Strengthened)	15	15 (100%)	15 (100%)	15 (100%)	PASSED
3 (Sustained)	21	21 (100%)	21 (100%)	21 (100%)	PASSED
4 (Institutionalized)	21	18 (86%)	18 (86%)	21 (100%)	PASSED
TOTAL	84	81 (96%)	81 (96%)	84 (100%)	

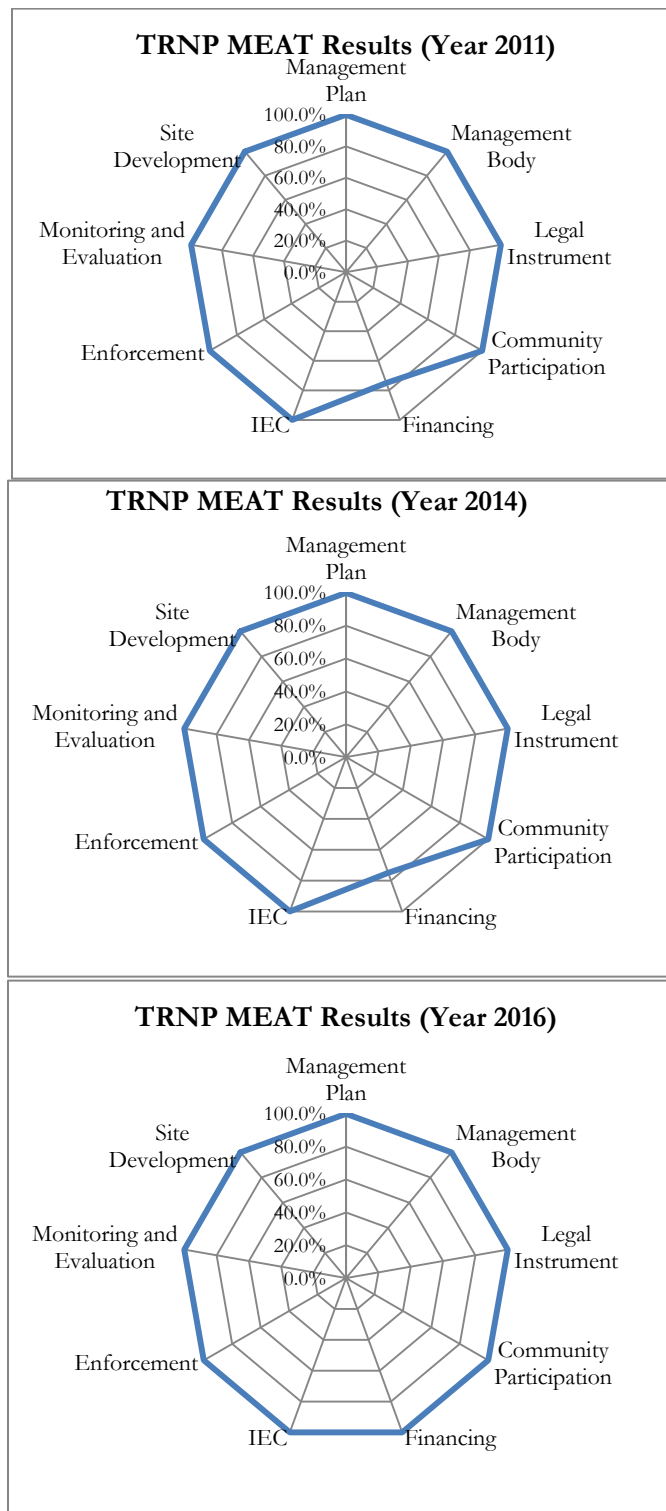


Figure 15: MEAT Results of TRNP (2011, 2014, 2016)

C. Priority Activities of TRNP

To provide directions for the TRNP in the next two years, the TMO Staff and PAMB members came up with the priority activities which are deemed strategic in improving the management effectiveness of the PA. These activities are based on the results of both METT and MEAT.

Table 21: TRNP Action Plan

Areas for Improvement/ Issue	Activities	Timeframe	Budget	Responsible Person
Erosion and siltation / deposition	<ul style="list-style-type: none"> ✓ Coordinate with the experts on coastal erosion to conduct study on the identifying mitigating measures to abate the current erosion rate in the atolls. ✓ Seek assistance from partners for the conduct of the study ✓ Seek assistance from partners on the implementation of coastal erosion mitigating measures 	2017	P1 M	TMO, PAMB
Law Enforcement	<ul style="list-style-type: none"> ✓ Upgrade the radar, communication equipment 	2017	P2M	TMO, PAMB
Protected Area Regulations	<ul style="list-style-type: none"> ✓ Partner with academic institutions to conduct study on the carrying capacity or limits of acceptable change (LAC) of the PA to determine the scale of tourism industry, acceptable number of visitors 	2017	P1M	TMO, PAMB

VIII. Assessment Results of TIWS

The TIWS was established on August 26, 1999 through Presidential Proclamation Number 171 to protect the 242,967-hectare nesting area for green sea turtles (*Chelonia mydas*) and hawksbill turtles (*Eretmochelys imbricata*) in the six islands of the municipality of Turtle Islands in the province of Tawi-tawi. It is part of the Turtle Islands Heritage Protected Area (TIHPA) established in 1995 through a memorandum of agreement (MOA) between the Republic of the Philippines and the Government of Malaysia. Located between Malaysia and the Philippines, the TIHPA is the world's first transborder marine protected area for sea turtle.

The TIWS is recognized as one of the remaining major nesting areas of green sea turtles in Southeast Asia and the 11th major sea turtle nesting area in the world. It is considered as one of the model MPAs in the Coral Triangle Initiative.

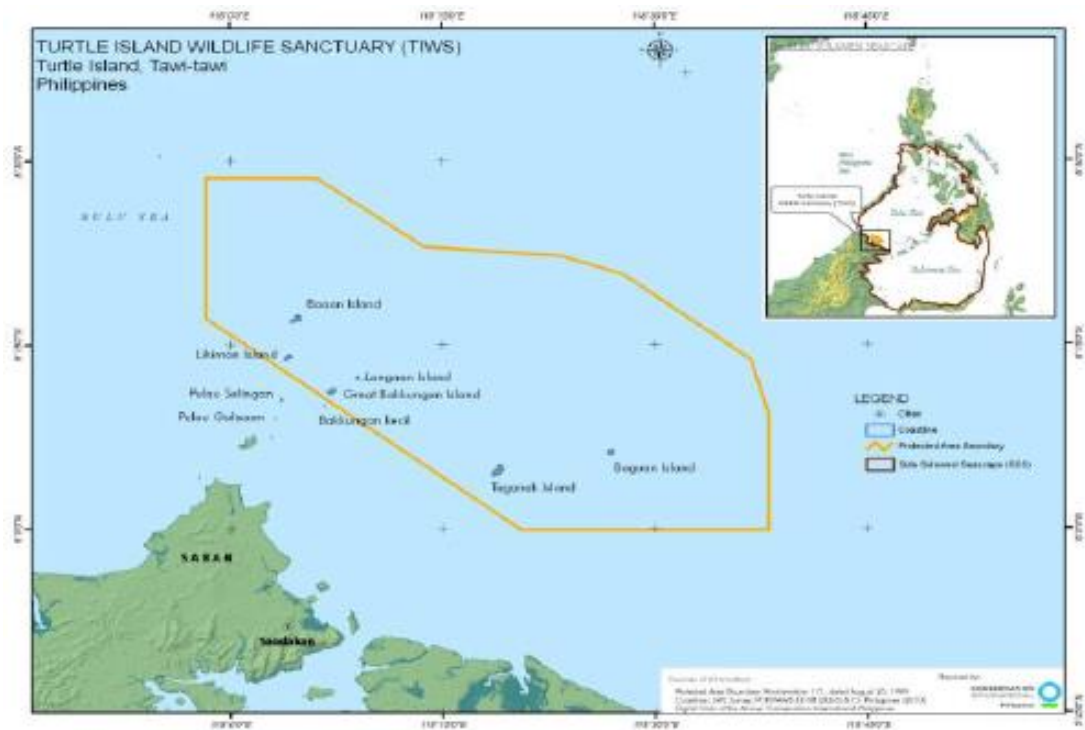


Figure 16: Map showing the boundaries of TIWS

Of the total area of the TIWS, 298 hectares comprise the aggregate area of the islands of Taganak, Baguan, Boan, Bakungan, Lihiman and Lagaan. Taganak Island is the biggest island with the highest population, Baguan Island on the other hands, is a fully no-take zone for sea turtles and other marine life.

Its vision is stated as follows:

Turtle Islands Wildlife Sanctuary as a model protected area for marine turtles and a world-class ecotourism destination maintaining a well-balanced ecological system consistent with the principle of biological diversity, sustainable development and protection of cultural heritage managed by empowered and conscientious community and stakeholders through good governance.

A. METT Results 2016

The results of the METT in 2016 show that the PA is facing threats on trawling, blast fishing, poison fishing and other illegal, unregulated and unreported fishing practices. The municipal mayor attested that illegal fishing has been significantly reduced since his term started in July 2016. The perennial garbage and solid waste problem is also a threat in the sea turtle nesting area. It is also observed that coastal erosion due to strong wave action is spotted particularly in the no-take zone. It is observed that the DENR has transferred its hatchery towards land area. Housing settlement is also becoming a threat to the PA with the increasing population in the settlement islands.

Table 22: Top 10 threats rated as “High” based on the METT

	PROTECTED AREA THREATS	High	Medium	Low	No Data	Not Applicable
1	5.5 Trawling, blast and poison fishing	3	2	2	0	0
2	9.4 Garbage and solid waste	3	2	2	0	0
3	10.4 Erosion and siltation / deposition	3	2	2	0	0
4	1.1 Housing & settlement	2	1	1	0	1
5	9.1a Household sewage and urban wastewater	2	1	1	0	2
6	2.4 Marine and freshwater agriculture	1	0	0	0	4
7	5.4 Fishing, killing, and harvesting aquatic resources	1	1	3	0	2
8	8.1a Invasive non-native/alien animals	1	1	4	0	1
9	8.2 Introduced genetic material	1	0	0	1	5
10	9.1b Sewage and wastewater from PA facilities	1	1	1	0	3

Context

The TIWS is operating under a presidential proclamation, like most of the PAs in the country, the law that will finally define and designate the area is still being proposed in the congress. Based on the last assessment (2014), two legislative initiatives had been filed in the two legislative houses to strengthen the legal basis of the PA. These are Senate Bill 2148 filed by Senator Pia S. Cayetano and House Bill No. 2771 filed by Congresswoman Ruby M. Sahali in 2013. Until this assessment (2016), both were not yet approved.

Planning

The General Management Plan of TIWS is due for updating this 2016 according to the PASu, hence most of the PAMB members scored low on the aspect of management plan. The objective of the PA is clear among the members who were present during the assessment workshop. The design of the PA is also acceptable among them, however, there is a need to further improve on the planning element.

Inputs

The PA has nine (9) rangers and three (3) volunteers manning the ranger station in Baguan Training Center. The PASu is a regular personnel of the PA under the DENR plantilla. The budget of the PA is based on the regular funds of the protected area under the DENR. The PA funds cover the personnel allocations, transportation and communication and other maintenance and operating expenses of the PA. However, the available funds are not sufficient for the full operation based on the management plan of the PA. The training and capacity building of the PA staff is commonly anchored on the training programs of partner institutions.

The law enforcement of the PA is in coordination with the Philippine Navy West Command, which provides the transportation to and from the PA to the mainland in Zamboanga.

Process

The awareness program of the PA is mostly provided by the partner non-government organizations (NGOs) such as the CI, GIZ and World Wildlife Fund for Nature (WWF) among others. The boundary demarcation is still to be improved, although the boundaries of the PA are already mapped, the installation of boundary markers remains in the pipeline of the PA activities and programs.

Outputs

The PAMB members, present during the assessment workshop, scored relatively higher on parameters relating to the output/outcome elements. According to them the economic benefit is felt and is rated highest among the parameters.

A proposal has been approved for funding and implementation for the construction of a visitor center. The funding is already available to be accessed by the provincial tourism office. However, there is a need for a follow up on the project with the change in administration after the recently concluded local elections.

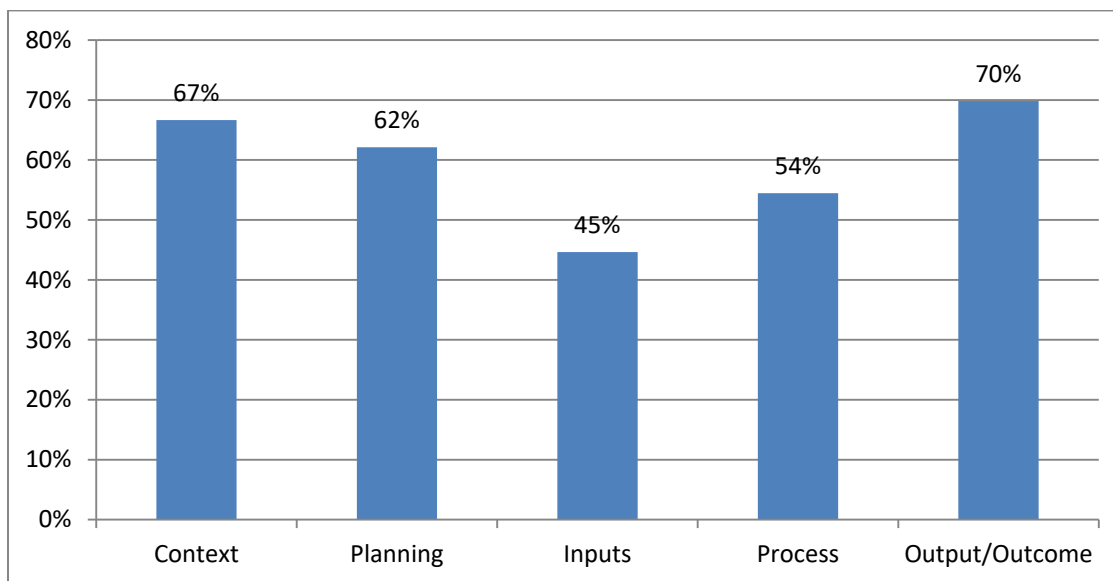


Figure 17: Percentage scores per IUCN-WCPA Element based on the METT response on TIWS PAMB members for 2016

A.1 Comparative Analysis of METT Results

A slight increase in the overall score of the METT from the 2014 (51%) to 2016 (56%) assessments is noted. The respondents in 2016 provided higher scores in inputs, process and output/outcome criteria. The enforcement system has improved in terms of stricter implementation of fisheries laws within the PA that prohibits the illegal fishing activities. This is attributed to the political will of the newly elected municipal mayor. The perspective provided by the representative of the Philippine Navy has also contributed to the higher score given by the respondents on enforcement process.

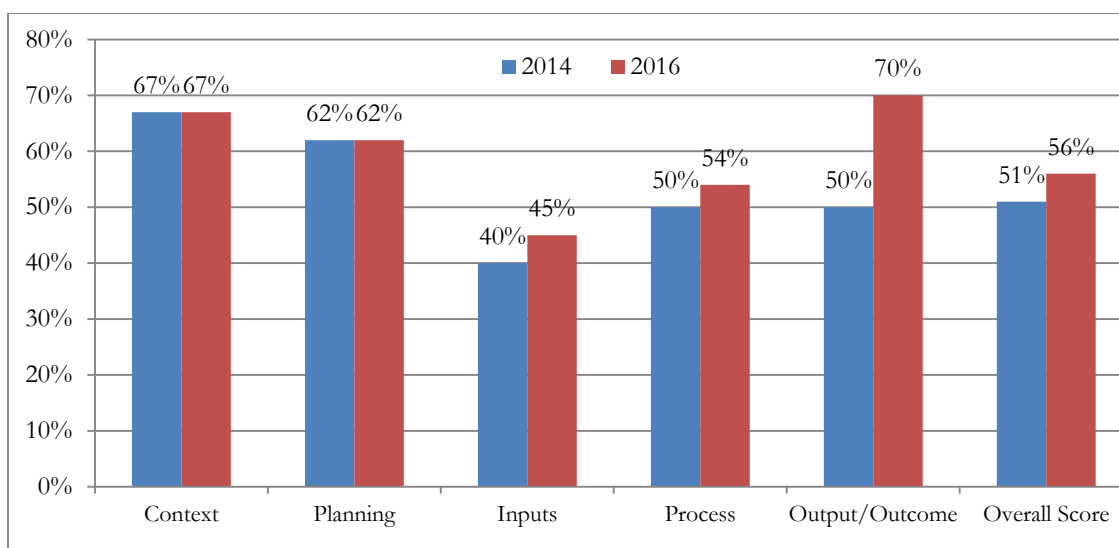


Figure 18: Comparative Analysis of the METT Results of TIWS 2014 and 2016

A.2 Addressing the Threats and Issues in TIWS

To reduce the threats and issues based on the METT assessment, the PAMB members crafted several strategies and actions that can be implemented in the next two to five years in the PA. These strategies are listed below.

Table 23: Action Plan to address the threats in TIWS

Threats	How to address these threats
5.5 Trawling, blast and poison fishing	Strengthening of law enforcement -Creation of law enforcement composite task force composed of AFP, PNP, BFAR law enforcement team (bantay-dagat), LGU, PAMB/DENR as the team leader -Creation of MOU between & among the agencies involved, MOU to include roles and responsibilities -Draft and adopt law enforcement plan for TIWS
9.4 Garbage and solid waste	Marine debris and Solid Waste Management at the household level -Establishment of MRF -Recycling and livelihood for women's group -Recommendation: Development of brick from solid waste to be used as aggregates (Look for potential investor) -Possible funding for the revival of the 'Ilaw ng Tahanan', 10 women members
10.4 Erosion and siltation / deposition	-Seek technical assistance for engineering measures to abate coastal erosion particularly on Taganak Is.
1.1 Housing & settlement	-Long-term plan: Ordinance to regulate in-migrants
9.1a Household sewage and urban wastewater	-Construction of public toilet at strategic areas (Sitio Limao Limao)

Table 24: Action to address the issues in TIWS (METT 2016)

Issue/Criteria	What needs to be done to address these issues
Commercial Tourism Operators	-Seek assistance from consultants for the preparation of the ecotourism operational plan to comply with the requirements of TIEZA
Planning for adjacent land and water use	-CLWUP and GMP of the PA needs to be updated
Management Plan	-For updating on 9 Nov 2016
Current Budget	-Prepare annual work and financial plan incorporating the recommendations of the Assessment Workshop
Security of Budget	-Submit workplan for the 75% of the IPAF, for approval of the PAMB

B. MEAT Results 2016

This assessment shows that the management effectiveness level of the PA attained “Level 2” or “MPA is Strengthened” with a cumulative score of 67 or “Excellent”. The PA has successfully achieved three management foci namely, a) legal instrument, b) management body, and c) community participation. The lowest scores were on management plan and enforcement.

In terms of enforcement, the Bantay Dagat and PA rangers and volunteers were being trained by the Conservation International Philippines and the Bureau of Fisheries and Aquatic Resources. There are period patrol and surveillance activities undertaken in the PA such as the maritime security patrol, which is done three times a week, QRT done by BFAR on a quarterly basis and monitoring, control and surveillance (MCS) activities done monthly.

The Philippine Marines provides reports to the headquarters regularly. Some of the accomplishments of the enforcement activities include the apprehension of Chinese poachers in 2007 aboard a vessel from Hainan China.

The PA, however, was not able to achieved two thresholds of “Level 3” or “Sustained MPA” and three (3) thresholds of Level 4 (Institutionalized MPA). These thresholds are the following:

A. Under Level 3:

- 3.1.4 Enforcement system fully operational
- 3.1.10 Violators prosecuted and sanctioned

B. Under Level 4:

- 4.1.2 MPA plan incorporated in broader plans
- 4.1.6 Performance Monitoring Linked to an Incentive System
- 4.1.11 MPA Financially Self-Sustaining

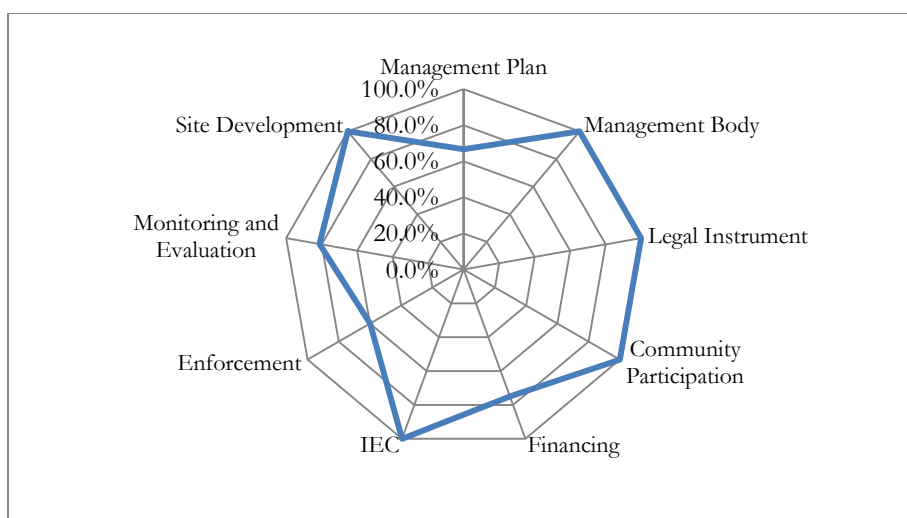


Figure 19: MEAT Results of TIWS (2016)

B.1 Comparative Analysis of MEAT Results

Three assessments using the MEAT had been undertaken in TIWS together with the two other PAs under ST-MPAN in the Philippines (2011, 2014 and 2016).

The assessment results show a significant improvement in the management effectiveness of TIWS in the last seven (7) years. As a benchmark in 2011, the PA achieved Level 1 with a cumulative score 48 achieving 57% of the 84 maximum points of the parameters of MEAT. In 2014, the PA Level remained at Level 1, however, it increased its score to 50 points which is 60% of the maximum score. A leap to the next level was reached by the PA in 2016 achieving Level 2 by addressing the parameters which are mostly on enforcement concerns. The total score has also increased to 67 points which is equivalent to 80% of the maximum score.

Table 25: Trend in the Management Status of TIWS

MPA LEVEL	MANAGEMENT STATUS				Remarks to 2016 Assessment
	Maximum Points	Actual Score (2011)	Actual Score (2014)	Actual Score (2016)	
1 (Established)	27	27 (100%)	27 (100%)	27 (100%)	PASSED
2 (Strengthened)	15	12 (80%)	8 (53%)	14 (93%)	PASSED
3 (Sustained)	21	4 (19%)	6 (28%)	15 (71%)	Failed to meet threshold: 3.1.4 Enforcement system fully operational 3.1.10 Violators prosecuted and sanctioned
4 (Institutionalized)	21	4 (19%)	6 (28%)	11 (52%)	Failed to meet threshold: 4.1.2 MPA plan incorporated in broader plans 4.1.6 Performance Monitoring Linked to an Incentive System 4.1.11 MPA Financially Self-Sustaining
TOTAL	84	48 (57%)	50 (60%)	67 (80%)	

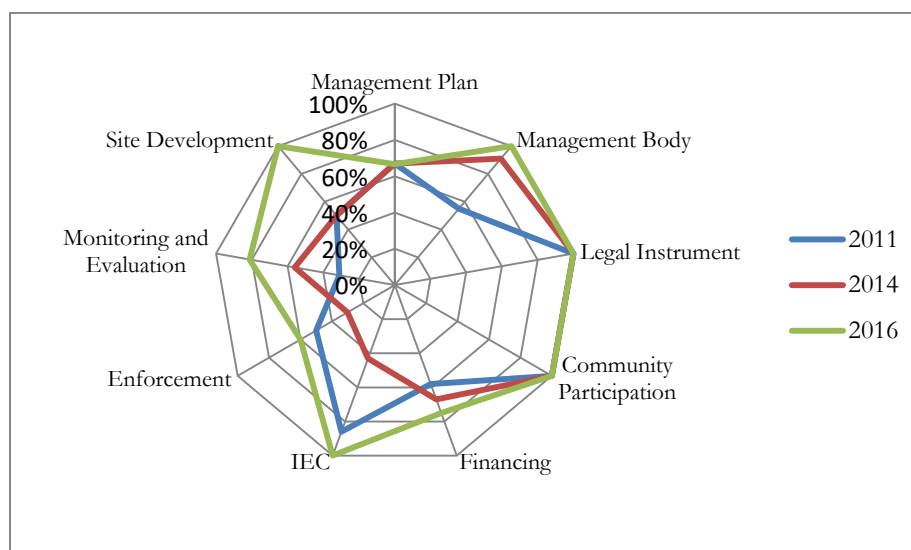


Figure 20: MEAT Results of TIWS (2011, 2014, 2016)

B.3 Immediate Action Plan addressing the results of MEAT of TIWS

To improve on the current status of the TIWS, the PAMB members devise a plan based on the results of the MEAT. The action plan identifies the actions and activities needed to further strengthen the management effectiveness of the PA.

Table 26: Immediate Action Plan to Address the Thresholds

Thresholds	What needs to be done to meet these thresholds
3.1.4 Enforcement system fully operation in the last 5 consecutive years	Strengthening of law enforcement <ul style="list-style-type: none"> -Creation of law enforcement composite task force composed of Arm Forces of the Philippines (AFP), Philippine National Police (PNP), Bureau of Fisheries and Aquatic Resources (BFAR) law enforcement team (bantay-dagat), LGU, PAMB/DENR as the team leader -Creation of memorandum of understanding (MOU) between & among the agencies involved, MOU to include roles and responsibilities -Drafting of MOU by BFAR -Draft and adopt law enforcement plan for TIWS -Construction of naval forward base for logistical support
3.1.10 Violators prosecuted and sanctioned	<ul style="list-style-type: none"> -Request DOJ to establish a Municipal Circuit Trial Court (MCTC) in Taganak -Office of the Mayor addressed to USEC Maria Paz Luna for the establishment of the MCTC

Thresholds	What needs to be done to meet these thresholds
4.1.2 MPA management plan incorporated in broader development plans	-Provide updated GMP to PPDC for incorporation to their Provincial Development Framework Plan
4.1.6 Performance monitoring and evaluation system linked to an incentive system	<-Long-term target
4.1.11 MPA financially self-sustaining in the last 7 consecutive years	-PAMB to come up with a Policy on the payment of user fees (boat anchorage) to impose penalties for non-payment -Establish Environmental fee system -Long-term: Establish transient house/home-stay by Cooperative

C. Priority Activities of TIWS

To provide directions for the TIWS in the next two years, the PAMB members came up with the priority activities which are deemed strategic in improving the management effectiveness of the PA. These activities are based on the results of both METT and MEAT.

Table 27: TIWS Action Plan

Areas for Improvement/ Issue	Activities	Timeframe	Budget	Responsible Person
Strengthening of law enforcement	Conduct of law enforcement planning workshop with ff participants: AFP (NFWM) (2), PNP (COP-Taganak) (1), BFAR law enforcement team: bantay-dagat (5), BFAR (1) BFAR-ARMM-FRMD & QRT (2), LGU (2), PAMB (2), PENRO-ARMM (1) DENR-TIWS (3), DENR R9 (2) as the team leader, around 20 pax Outputs of the Workshop: -Draft MOU, Enforcement & Tactical Plan	Q2 2017	TBD	DENR-BMB: Sulu-Sulawesi Seascape Project
Marine debris and Solid Waste Management at the household level	-Convene women's group for SWM -Regular community awareness rounds by PNP -Installation of signages -Conduct training on segregation practices among women -Civil military operation Activity by NFWM on Environmental Management education Seminar (EMS)	Q 2017 Q4 2016	TBD	LGU & PAMB NFWM, CMOU-WM and DENR R9

IX. Conclusion and Recommendations

In conclusion, the three PAs within the ST-MPAN in the Philippines are effectively managed with MEAT results. All of the three have reached Level 2 or PA is strengthened, with one PA even reached the highest level of 4 or PA is institutionalized. Using METT, the two PAs in the network have relatively low percentage scores compared to the other PA which has high percentage score.

The PA (TRNP) which has high score in both tool is recommended to use a different assessment tool with a finer gradient of criteria. However, for the purpose of national comparison, the PA should continue to go through the periodic assessment to be a model with other PAs in the country.

For the periodic assessment to be useful in improving the management effectiveness of PAs, the following are recommended:

1. Incorporating the assessment results in the GMP and annual work and financial plan

The General Management Plan of the PAs should discuss the trends of management effectiveness assessment results. In this manner, the plan will incorporate actions that will address issues, threats and unattained thresholds. The annual work and financial plan should also be prepared based on the latest results of the assessments. For example the actions identified in this assessment should already be incorporated in the 2017 and 2018 annual workplan of the three PAs. In this way, the progress of the PA towards effective management is concretely crafted and financed.

2. Functionality of the performance audit committee

The PAMBs have performance audit committees which work as the human resources development unit of the board. The committee evaluates, plans and implements programs that build the capacity of the board and the management/executive office (PASu) to be able to effectively and efficiently perform the tasks and responsibilities of each member and each committee or staff.

It is recommended that the management effectiveness results or at least some of its parameters are the main indicators in the individual performance commitment and review (IPCR) of the PA staff and office performance commitment and review (OPCR) of the DENR. The PASu, as the executive officer of the PA, should ensure that the recommendations in the latest assessment are addressed effectively.

3. Developing an annual work and financial plan that will capture the recommendations during the latest assessment

For the recommendations identified during the assessment to be acted upon by the PAMB, it is important that these are duly funded. Hence, it is important that the annual work and financial plan incorporates the activities and programs that aims to accomplish the parameters in the assessment tools. In so doing, the PA will be developing into an effectively managed PA.

In the long term perspective, the trends in the assessment results should be part of the analysis spectrum in the process of developing the general management plan of each of the PA.

4. PA Stakeholders to have a synchronized management effectiveness targets

To achieve an effectively managed PAs, it is recommended that the stakeholders, to wit, PAMB, LGU, NGOs, NGAs to have a common or harmonized targets. Considering the dynamics in each of the

institutions involved that varies through time, it is also useful to gain the commitment of the other stakeholders to uphold the targets of the PA. For example with the change of political agenda of the LGUs, the NGAs and the NGOs will still be able to work on the targets of the PA. On the other hand, when the NGOs shifted their strategic actions in the area or may spin off from the area, the LGU would be able to continue the programs of the PA.

On the assessment process and methodology, the use of the two existing management effectiveness tools in the country namely, METT which is an internationally used tool with its additional qualifiers developed by the DENR and its partners to capture the current PA system practices in Philippine setting, and MEAT which features most common parameters of marine protected area management in the Philippines, remains the most effective method of evaluating the three MPAs in the STMPAN. Both tools are recommended to be conducted periodically (say every two years) in the three PAs in STMPAN in conjunction with annual work and financial planning or updating of the general management plan. The two-day workshop flow below is recommended to be adopted by the PAMB audit committee as the process of conducting the management assessment cum planning workshop.

Table 28: Proposed two-day Management Effectiveness Assessment cum planning workshop flow

Day & Time	Activity	Logistics Needed
Day 1		
8:00-9:00	Registration	Attendance Sheets, Kit
9:00-9:30	Opening Ceremonies	
	Opening Prayer	Laptop and LCD
	Philippine National Anthem	Laptop and LCD
	Messages	From DENR, Sponsor, LGU and other guests
	Workshop Objectives and Schedule	To be given by the facilitator or project coordinator
9:30-10:00	Presentation of the assessment tools (process, summary of criteria, scoring and analysis of assessment results - METT and MEAT	Facilitator
10:00-10:15	Break	
10:15-11:30	Presentation of the previous METT results (including the updates on the action plan of the latest assessment result)	To be given by the PASu
11:30-12:00	Start the conduct of METT Assessment	Facilitator and Participants
12:00-1:00	Lunch Break	
1:00-3:00	Continuation of the METT Assessment	Facilitator and Participants
3:00-3:15	Break	
3:15-3:30	Presentation of the previous MEAT results (including the updates on the action plan of the latest assessment result)	To be given by the PASu
3:30-5:00	MEAT Assessment on Plenary	Facilitator and Participants
Day 2		
8:00-8:30	Registration and Recapitulation	Participant/Secretariat
8:30-9:00	Presentation of Assessment Results from the previous day	Facilitator
9:00-11:00	Action Planning to address the needs resulting from the assessment	Participants
11:00-11:30	Presentation of action plan	

Day & Time	Activity	Logistics Needed
11:30-12:00	Preparation of the Annual Work and Financial Plan using the prescribed format	Participants
12:00-1:00	Lunch	
1:00-2:30	Continuation of the preparation of the work and financial plan	Participants
2:30-3:00	Presentation of the Annual Work and Financial Plan	Group Leaders
3:00-3:15	Break	
3:00-5:00	Formal PAMB meeting to adopt the Annual Work and Financial Plan	PAMB
5:00	Adjournment	

The conduct of MPA MEAT in plenary with the PAMB members of the PA is highly recommended. This method provides a venue for the members and stakeholders to discuss each criterion and come up with a consensus score.

The METT, on the other hand, requires the evaluation from each of the PAMB member. In 2016 and 2014 assessment, the quorum of PAMB en banc as prescribed by the DENR department order is not achieved. This is most probably because the assessment was not undertaken during any of the regular or special session of PAMB. Hence, it is recommended that the conduct of management effectiveness assessment be undertaken during any of the regular or special session of the PAMB concerned.

On the process of facilitating the METT, it is recommended to conduct METT in plenary also in the same method as the MEAT so that the PAMB members and PA staff may have opportunity to discuss and clarify issues pertaining to each of the threat and effectiveness criteria or issue of the tool.

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Annexes

Annex A1: Summary of Threats in ENTMRPA (METT Results 2016)

PROTECTED AREA THREATS	High	Medium	Low	No Data	Not Applicable	No Answer	>50% Response
1 Residential and commercial development w/in PA							
1.1 Housing & settlement	9	7	2	0	0	2	yes
1.2 Commercial and industrial areas	11	4	3	1	0	1	yes
1.3 Tourism & recreation infrastructure	9	6	4	0	1	0	yes
2. Agriculture and aquaculture within PA							
2.1 Annual and perennial non-timber crop cultivation	2	12	5	0	1	0	yes
2.1a Utilization of portions of PA to upland vegetable & other agricultural crop farms	5	9	6	0	0	0	yes
2.1b Illegal drug cultivation	4	0	1	10	4	1	no
2.2 Wood & pulp plantations	1	4	12	0	0	3	yes
2.3 Livestock farming & grazing	1	3	10	3	0	3	yes
2.4 Marine and freshwater agriculture	0	0	11	5	2	2	yes
3. Energy production & mining within/outside a PA							
3.1 Oil & gas drilling	2	3	1	0	14	0	no
3.2 Mining/quarrying	7	3	5	0	4	1	yes
3.3 Energy generation, including from hydropower dams	1	4	6	1	7	1	yes
3.4 Treasure hunting / ship wreck recovery	1	1	2	5	10	1	no
4. Transportation and service corridors within a PA							
4.1 Roads & railroads	4	6	7	1	2	0	yes
4.2 Utility and service lines	2	2	8	3	5	0	yes
4.3 Shipping lanes and canals	1	8	8	1	2	0	yes
4.4 Flight paths	1	1	9	4	4	1	yes
5. Biological resource use and harm within a PA							
5.1 Hunting, killing, and collecting of terrestrial animals	2	7	11	0	0	0	yes
5.2 Gathering terrestrial plants or plant products (non-timber)	2	4	10	1	3	0	yes
5.3 Logging and wood harvesting	7	7	5	0	1	0	yes
5.4 Fishing, killing, and harvesting aquatic resources	4	6	7	1	1	1	yes
5.5 Trawling, blast and poison fishing	3	2	10	2	3	0	yes
6. Human intrusions an disturbance within a PA							
6.1 Recreational activities and tourism	3	12	4	0	1	0	yes
6.2 War, civil unrest and military exercises	1	0	0	2	16	1	no
6.3 Research, education, and other work-related activities	0	3	9	0	8	0	yes
6.4 Activities of PA managers	0	4	5	3	8	0	no
6.5 Deliberate vandalism, destructive activities or threats to PA staff and visitors	1	5	8	3	3	0	yes

PROTECTED AREA THREATS	High	Medium	Low	No Data	Not Applicable	No Answer	>50% Response
7. Natural system modifications							
7.1 Fire including arson	3	6	10	0	1	0	yes
7.2 Dams ,hydrological modification and water management/use	0	1	5	2	12	0	no
7.3a Increased fragmentation within PA	1	5	10	2	2	0	yes
7.3b Isolation from other natural habitat	3	5	9	1	2	0	yes
7.3c Other 'edge effects' on park values	2	5	5	2	5	1	yes
7.3d Loss of keystone species	3	7	7	1	2	0	yes
8. Invasive and other problematic species and genes							
8.1 Invasive non-native/alien plants	0	3	9	5	3	0	yes
8.1a Invasive non-native/alien animals	0	4	9	4	3	0	yes
8.1b Pathogens	0	1	6	7	6	0	no
8.2 Introduced genetic material	0	1	2	5	11	1	no
9. Pollution entering or generated within PA							
9.1a Household sewage and urban wastewater	10	4	6	0	0	0	yes
9.1b Sewage and wastewater from PA facilities	5	7	5	2	1	0	yes
9.2 Industrial, mining and military effluents and discharges	0	1	12	4	3	0	yes
9.3 Agricultural and forestry effluents	1	3	11	0	4	1	yes
9.4 Garbage and solid waste	9	8	3	0	0	0	yes
9.5 Air-borne pollutants	2	3	9	2	2	2	yes
9.6 Excess energy	0	1	5	5	7	2	no
10. Geological events							
10.1 Volcanoes	0	0	3	3	14	0	no
10.2 Earthquakes/Tsunamis	0	0	7	4	9	0	no
10.3 Avalanches/Landslides	2	6	12	0	0	0	yes
10.4 Erosion and siltation / deposition	2	6	10	0	2	0	yes
11. Climate change and severe weather							
11.1 Habitat shifting and alteration	2	7	5	2	2	2	yes
11.2 Droughts	4	5	7	1	1	2	yes
11.3 Temperature extremes	3	6	8	1	2	0	yes
11.4 Storms and flooding	4	10	6	0	0	0	yes
12. Specific cultural and social threats							
12.1 Loss of cultural links, traditional knowledge and/or management practices	1	9	7	0	1	2	yes
12.2 Natural deterioration of important cultural site values	2	8	9	0	0	1	yes
12.3 Destruction of cultural heritage buildings, gardens, sites, etc	0	3	8	1	8	0	yes
12.4 Effect of influence groups on IP values and freedom to decide	2	5	8	1	3	1	yes
12.5 Loss of support to communities and projects due to changes in political leadership	2	5	8	1	3	1	yes

Annex A2: Assessment of Threats in ENTMRPA (METT Results 2016)

PROTECTED AREA THREATS	NAME OF PAMB MEMBERS																			
	Arvin L. Acosta	Valiant Najib Z. Eresuela	Tane F. Distal	Maria Victoria D. Matillano	Paquito E. Luto / Arnold G. Manlaut	Leony M. Guzman	Cabesas D. Antonio, Jr.	Rodante V. Reynoso	Josie R. Padon	Meriam G. Arsaga	Dominador M. Peñaranda, Jr.	Ruben V. Varsaga	Jesus Casis	Alexander Mancio	Jose A. Alferez	Hermelina A. Bonagua	Isidro F. Bacaltos	Raquel S. Aguilar	SPO2 Jaison Cahilig	Lucia J. Anastacio
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 Residential and commercial development w/in PA																				
1.1 Housing & settlement	L	H	H	H	M	M	M	M	H	H	H	H	M	M	H	L	M	M	H	L
1.2 Commercial and industrial areas	H	H	H	H	H	M	M	L	M	H	H	H	M	M	H	ND	H	L	H	L
1.3 Tourism & recreation infrastructure	M	H	H	H	H	L	L	M	L	H	H	H	M	M	H	NA	H	L	M	M
2. Agriculture and aquaculture within PA																				
2.1 Annual and perennial non-timber crop cultivation	L	M	M	H	L	M	NA	M	M	L	M	M	M	L	H	M	M	M	M	L
2.1a Utilization of portions of PA to upland vegetable & other agricultural	M	M	M	H	L	H	L	M	H	L	M	H	M	M	H	L	L	M	M	L
2.1b Illegal drug cultivation	H	ND	ND	NA	NA		H	H	NA	ND	ND	H	ND	ND	L	NA	ND	ND	ND	ND
2.2 Wood & pul plantations	L	L	L	L	L			L	M	M	M	H	L	L	M	L	L	M	L	L
2.3 Livestock farming & grazing	L	L	L	M	L			L	M	L	ND	H	L	L	L	L	ND	M	ND	M
2.4 Marine and freshwater agriculture	L	L	L	NA	NA		ND		L	ND	L	L	L	L	L	L	ND	L	ND	ND
3. Energy production & mining within/outside a PA																				
3.1 Oil & gas drilling	M	NA	NA	M	NA	NA	H	NA	NA	NA	M	H	L	NA	NA	NA	NA	NA	NA	NA
3.2 Mining/quarrying	H	NA	L	H	NA	M	NA	L	M	H	H	H	NA	M	H	H	L	H	L	L
3.3 Energy generation, including from hydropower dams	ND	L	L	NA	L	NA	NA	NA	NA	M	NA	M	L	NA	H	M	L	M		L
3.4 Treasure hunting / ship wreck	H	ND	ND	ND	NA	NA	NA		NA	ND	NA	M	L	L	NA	NA	ND	NA	NA	NA
4. Transportation and service corridors within a PA																				
4.1 Roads & railroads	L	L	M	M	NA	NA	L	M	H	H	M	H	M	L	H	ND	L	M	L	L
4.2 Utility and service lines	L	L	ND	L	NA	L	H	L	NA	M	NA	H	M	L	NA	ND	NA	L	ND	L
4.3 Shipping lanes and canals	L	L	L	NA	L	M	H	M	M	ND	L	M	M	L	M	NA	M	M	L	L
4.4 Flight paths	L	ND	ND	NA	L	L	NA		NA	ND	L	H	M	L	ND	NA	L	L	L	L
5. Biological resource use and harm within a PA																				
5.1 Hunting, killing, and collecting of terrestrial animals	H	L	L	H	L	L	L	L	L	L	M	M	M	M	M	L	L	M	M	L
5.2 Gathering terrestrial plants or plant products (non-timber)	H	L	L	M	NA	L	NA	L	M	L	M	M	L	L	H	NA	L	L	ND	L
5.3 Logging and wood harvesting	H	M	M	H	H	L	L	L	NA	H	M	H	M	M	H	L	M	H	M	L
5.4 Fishing, killing, and harvesting aquatic resources	M	H	H	M	NA	L	L		L	H	M	M	L	M	H	L	M	L	L	ND
5.5 Trawling, blast and poison fishing	H	M	M	L	NA	L	L	L	L	L	L	H	L	L	H	NA	NA	ND	L	ND
6. Human intrusions an disturbance within a PA																				
6.1 Recreational activities and tourism	M	M	M	M	M	M	L	M	M	H	M	M	H	M	H	L	NA	M	L	L
6.2 War, civil unrest and military	NA	ND	ND	NA	NA	NA	H	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6.3 Research, education, and other work-related activities	L	L	L	L	NA	NA	NA	M	L	L	L	NA	M	L	M	NA	NA	NA	NA	L
6.4 Activities of PA managers	L	ND	ND	L	NA	M	NA	M	NA	M	ND	L	M	L	L	NA	NA	NA	NA	NA
6.5 Deliberate vandalism, destructive activities or threats to PA staff and	M	ND	ND	H	L	NA	M	NA	M	L	L	L	M	L	M	NA	ND	L	L	L

PROTECTED AREA THREATS	NAME OF PAMB MEMBERS																			
	Arvin L. Acosta	Valiant Najib Z. Eresuela	Tane F. Distal	Maria Victoria D. Matillano	Paquito E. Luto/ Arnold G. Manlaut	Leony M. Guzman	Cabesas D. Antonio, Jr.	Rodante V. Reynoso	Josie R. Padon	Meriam G. Arsaga	Dominador M. Peñaranda, Jr.	Ruben V. Varsaga	Jesus Casis	Alexander Mancio	Jose A. Alferez	Hermelina A. Bonagua	Isidro F. Bacaltos	Raquel S. Aguilar	SPO2 Jaison Cahilig	Lucia J. Anastacio
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
7. Natural system modifications																				
7.1 Fire including arson	H	L	L	M	M	M	H	L	L	M	L	M	NA	L	H	L	L	L	M	L
7.2 Dams ,hydrological modification and water management/ use	L	L	ND	L	NA	NA	NA	L	NA	NA	M	NA	ND	L	NA	NA	NA	NA	NA	NA
7.3a Increased fragmentation within PA	M	L	ND	M	L	L	M	NA	L	H	L	L	L	M	M	NA	ND	L	L	L
7.3b Isolation from other natural habitat	H	L	ND	M	M	M	NA	NA	L	H	M	L	L	M	H	L	L	L	L	L
7.3c Other 'edge effects' on park values	M	M	ND	M	L	L	NA		NA	H	M	L	NA	M	H	NA	ND	L	L	NA
7.3d Loss of keystone species	H	L	M	M	L	L	NA	NA	M	H	M	L	M	M	H	ND	L	M	L	L
8. Invasive and other problematic species and genes																				
8.1 Invasive non-native/ alien plants	M	ND	ND	L	M	L	L	NA	M	ND	L	NA	ND	L	L	L	L	NA	ND	L
8.1a Invasive non-native/ alien animals	M	ND	ND	ND	M	NA	NA	L	M	L	L	M	ND	L	L	L	L	L	NA	L
8.1b Pathogens	L	ND	ND	L	NA	L	ND	L	NA	ND	M	L	ND	NA	L	NA	ND	NA	NA	ND
8.2 Introduced genetic material	NA	ND	ND	NA	NA	NA	L	NA	NA	ND	L	M	ND	NA	NA	NA	ND	NA	NA	NA
9. Pollution entering or generated within PA																				
9.1a Household sewage and urban	M	H	H	H	L	M	L	L	L	H	M	H	H	M	H	L	H	H	H	L
9.1b Sewage and wastewater from PA	H	M	M	H	L	M	NA	L	M	ND	M	H	H	M	H	L	M	ND	L	L
9.2 Industrial, mining and military effluents and discharges	L	L	L	ND	L	L	NA	NA	L	L	L	M	ND	L	L	NA	ND	L	L	ND
9.3 Agricultural and forestry effluents	L	H	M	L	L	NA	NA		NA	L	M	L	L	L	M	NA	L	L	L	L
9.4 Garbage and solid waste	M	H	H	H	M	M	M	L	L	H	M	H	H	M	H	L	M	H	H	M
9.5 Air-borne pollutants	L	M	M	L	L		L	NA		L	M	H	ND	L	H	NA	L	ND	L	L
9.6 Excess energy	L	L	L	NA	NA		NA	NA		M	ND	NA	ND	L	L	NA	ND	NA	ND	ND
10. Geological events																				
10.1 Volcanoes	NA	NA	NA	NA	L	NA	NA	NA	NA	NA	NA	ND	ND	L	L	NA	ND	NA	NA	NA
10.2 Earthquakes/ Tsunamis	L	ND	ND	NA	L	NA	NA	NA	L	L	NA	ND	ND	NA	L	NA	L	L	NA	NA
10.3 Avalanches/ Landslides	L	L	L	H	M	L	M	L	L	M	M	L	L	L	H	M	L	M	L	L
10.4 Erosion and siltation / deposition	L	M	M	H	L	L	NA	NA	L	M	M	M	L	L	H	L	L	M	L	L
11. Climate change and severe weather																				
11.1 Habitat shifting and alteration	M	M	ND	M	L	NA	NA			M	M	H	ND	M	H	L	M	L	L	L
11.2 Droughts	L	M	H	H	M	L	L		L	L	M	H	ND	M	H	NA		M	L	L
11.3 Temperature extremes	L	L	M	H	L	M	L	NA	L	M	M	H	ND	M	H	NA	L	M	L	L
11.4 Storms and flooding	M	M	M	H	L	M	M	M	L	H	M	M	L	M	H	H	L	M	L	L
12. Specific cultural and social threats																				
12.1 Loss of cultural links, traditional knowledge and/ or management	M	M	M	NA	L	L	L	M		M		M	M	M	H	L	M	L	L	L
12.2 Natural deterioration of important cultural site values	M	L	L	L	M	L	M	L		L	M	L	M	M	H	M	H	M	L	L
12.3 Destruction of cultural heritage buildings, gardens, sites, etc	L	L	ND	M	NA	NA	NA	NA	NA	L	M	NA	L	L	L	NA	M	L	NA	L
12.4 Effect of influence groups on IP values and freedom to decide	L	M	L	ND	NA	L	NA	L		M	M	H	M	L	H	NA	L	M	L	L
12.5 Loss of support to communities and projects due to changes in political	L	ND	L	M	L	NA	NA	L		L	H	M	M	L	H	M	M	NA	L	L

Annex A3: Assessment of Issues in ENTMRPA (METT Results 2016)

Issue	Elements	PAMB MEMBERS																				Total Score	Total Ave Score	Max Score	%	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20					
1	Legal Status	Context	2		2	2	3				2	2	2	2	2	2	2	2	2	2	2	31		2	3	
	<u>Subtotal Context</u>																					<u>31</u>	<u>2</u>	<u>3</u>	<u>69%</u>	
3	Law Enforcement	Input	1		1	2	0			1	2	3	3	2	2	3	3	2	2	1	1	29		2	3	
9	Resource Inventory	Input	1		2	1				0	2	3	2		2	1	0	2	2	0	2	20		1	3	
13	Staff Numbers	Input	1		2	1	1			1	2	2	2	2	2	1	2	2	1	1	1	24		2	3	
14	Staff Training	Input	2		2	2	3			2	2	2	3	2	2	2	2	2	3	1	2	34		2	3	
15	Current Budget	Input	2		2	1				2	2	3	2	2	2	2		3	3		2	28		2	3	
16	Security of Budget	Input	1		2	1	3			0	2	2	1	2	2	3	1	2	2	1	2	27		2	3	
18	Equipment	Input	1		1	1	1			0	1	2	2	1	2	2		2	2	1	2	21		1	3	
29	Fees	Input	2		3	3	0			1	3	3	2	3	2	3	2	3	3	2	3	38		2	3	
29.a	Assessed IPAF	Input									1	1	1			1		1		1		6		1	1	
	<u>Subtotal Input</u>																					<u>227</u>	<u>15</u>	<u>25</u>	<u>62%</u>	
25	Economic Benefit	Output/Outcome	1		3	1	1			1	3	3	2	3	3	3	3	2	1	1	2	33		2	3	
27	Visitor Facilities	Output/Outcome	1		0	3	2			3	1	3	2	2	1	2	1	2	2	2	2	29		2	3	
30	Condition of Values	Output/Outcome	1		2	2	2			2	2	2	2	2	2	3	2	2	2	2	2	32		2	3	
30.a	Assessment of condition of Values	Output/Outcome			1	1				1	1	1		1	1	1	1	1			1	11		1	1	
30.b	Management programs addressing threats to biodiversity	Output/Outcome			1		1				1			1	1	1		1	1		1	9		1	1	
30.c	Activities to maintain key biodiversity values are routine part	Output/Outcome								1	1	1	1	1	1	1						6		1	1	
	<u>Subtotal Output/Outcome</u>																					<u>120</u>	<u>9</u>	<u>12</u>	<u>74%</u>	
2	Protected Area Regulations	Planning	1		2	2				2	3	2	2	2	2	1	3	2	2	0	2	26		2	3	
4	Protected Area Objectives	Planning	1		1	2	3			1	2	3	3	2	2		1	1	2	1	1	26		2	3	
5	Protected Area Design	Planning	1		1	1				3	3	3	2	3	1	1	3	2	1	3		28		2	3	
7	Management Plan	Planning	2		3	2	0			0	2	2	2	2	2	2	2	2	2	1	2	28		2	3	
7.a	Adequate Opportunity for stakeholders in management plan	Planning				1				1	1				1	1				1		6		1	1	
7.b	Periodic Review and Updating of Management Plan	Planning			1		1				1			1	1		1	1		1		8		1	1	
7.c	Research and Monitoring results incorporate in the plan	Planning																	1			1		1	1	
7.d	Operations Manual	Planning									1				1			1				3		1	1	
7.e	Enforcement Manual	Planning									1							1				2		1	1	
8	Regular workplan	Planning	2		2	2	2			0	2	3	2	2	2	2	1	2	2	1	1	28		2	3	
21	Planning for adjacent land and	Planning	2		2	3	3			1	2	1	2	3	3	3	2	2	3	1	2	35		2	3	
21.a	Land and Water planning for habitat conservation	Planning	1				1				1	1		1	1	1	1	1		1		10		1	1	
21.b	Land and Water planning for	Planning	1		1						1	1		1					1			6		1	1	
21.c	Land and Water planning for ecosystem services and species	Planning					1			1		1						1				4		1	1	
	<u>Subtotal Planning</u>																					<u>211</u>	<u>19</u>	<u>26</u>	<u>74%</u>	
6	Protected Area Boundary Demarcat	Process	1		2	1				0	2	3	1		2	3	1	2	1		2	21		2	3	
10	Protection Systems	Process	1		1	1	1			0	0	3	1	2	2	1	0	2	2	0	1	18		1	3	
11	Research	Process	2		2	1	1			0	2	3	1	2	3	2	1	3	3	1	2	29		2	3	
12	Resource Management	Process	1		2	1				1	1	2	2	2	2	2	1	3	3	1	1	25		2	3	
17	Management of Budget	Process	1		2	2				0	1	3	2	3	2	3	2	3	2	1	2	29		2	3	
19	Maintenance of Equipment	Process	2		2	2	1			0	1	1	2	3	2	2	0	2	1	1	1	23		1	3	
20	Education and Awareness	Process	1		2	2	2			1	2	3	2	2	2	2	2	2	1	1	2	29		2	3	
22	State and commercial neighbors	Process	1		2	0	1			0	1	1	1	1	2	1	1	1	1	0	1	15		1	3	
23	Indegenious People	Process	1		2	1	2			0	2	3	2	2	2	3	1	1	2	1	2	27		2	3	
24	Local Communities	Process	1		2	2	2			3	3	3	2	2	2	3	2		1	1	2	31		2	3	
24.a	Communication and trust between local and IPs	Process	1		1	1					1			1	1	1						7		1	1	
24.b	Community welfare	Process								1	1	1	1	1	1	1	1	1		1		10		1	1	
24.c	Support of IPs to PA	Process			1		1				1			1	1	1			1			7		1	1	
26	Monitoring and Evaluation	Process	1		1	1	1			1	2	3	1	1	2	3	0	3	1	1	2	24		2	3	
28	Commercial Tourism Operators	Process	1		3	1	2			2	1	3	2	2	1	2	1		1	1	2	25		2	3	
	<u>Subtotal Process</u>																					<u>320</u>	<u>22</u>	<u>39</u>	<u>57%</u>	
TOTAL ROUNDED AVERAGE SCORE																						68				
MAXIMUM SCORE																						105				
% OF MAXIMUM SCORE																						65%				

Annex A4: ENTMRPA MEAT Results 2016

Annex B1: Summary of Threats in TRNP (METT Results 2016)

PROTECTED AREA THREATS	High	Medium	Low	No Data	Not Applicable	No Answer	>50% Response
1 Residential and commercial development w/in PA							
1.1 Housing & settlement	0	0	0	0	18	2	No
1.2 Commercial and industrial areas	0	0	2	0	15	3	No
1.3 Tourism & recreation infrastructure	1	0	5	0	13	1	No
2. Agriculture and aquaculture within PA							
2.1 Annual and perennial non-timber crop cultivation	0	0	0	1	18	1	No
2.1a Utilization of portions of PA to upland vegetable & other agricultural crop farms	0	0	0	1	18	1	No
2.1b Illegal drug cultivation	0	0	0	0	19	1	No
2.2 Wood & pulp plantations	0	0	0	0	19	1	No
2.3 Livestock farming & grazing	0	0	0	0	19	1	No
2.4 Marine and freshwater agriculture	0	0	0	0	18	2	No
3. Energy production & mining within/outside a PA							
3.1 Oil & gas drilling	0	0	4	2	8	6	No
3.2 Mining/quarrying	0	0	1	0	18	1	No
3.3 Energy generation, including from hydropower dams	0	0	0	0	19	1	No
3.4 Treasure hunting / ship wreck recovery	0	0	0	1	16	3	No
4. Transportation and service corridors within a PA							
4.1 Roads & railroads	0	0	0	0	19	1	No
4.2 Utility and service lines	0	0	0	0	19	1	No
4.3 Shipping lanes and canals	6	1	9	0	2	2	No
4.4 Flight paths	0	1	2	5	11	1	No
5. Biological resource use and harm within a PA							
5.1 Hunting, killing, and collecting of terrestrial animals	0	1	3	0	16	0	No
5.2 Gathering terrestrial plants or plant products (non-timber)	0	0	1	0	18	1	No
5.3 Logging and wood harvesting	0	0	1	0	18	1	No
5.4 Fishing, killing, and harvesting aquatic resources	2	1	10	1	5	1	Yes
5.5 Trawling, blast and poison fishing	1	1	9	2	5	2	Yes
6. Human intrusions an disturbance within a PA							
6.1 Recreational activities and tourism	0	2	13	0	1	4	Yes
6.2 War, civil unrest and military exercises	0	0	1	1	16	2	No
6.3 Research, education, and other work-related activities	8	0	8	1	1	2	Yes
6.4 Activities of PA managers	1	1	6	1	9	2	No
6.5 Deliberate vandalism, destructive activities or threats to PA staff and visitors	0	1	10	2	4	3	Yes

PROTECTED AREA THREATS	High	Medium	Low	No Data	Not Applicable	No Answer	>50% Response
7.2 Dams ,hydrological modification and water management/use	0	0	0	0	20	0	No
7.3a Increased fragmentation within PA	0	2	1	1	16	0	No
7.3b Isolation from other natural habitat	0	0	0	2	17	1	No
7.3c Other 'edge effects' on park values	0	1	8	2	7	2	No
7.3d Loss of keystone species	0	1	7	5	5	2	No
8. Invasive and other problematic species and genes							
8.1 Invasive non-native/alien plants	0	1	3	2	13	1	No
8.1a Invasive non-native/alien animals	0	0	8	3	7	2	No
8.1b Pathogens	0	0	3	5	11	1	No
8.2 Introduced genetic material	0	0	2	4	13	1	No
9. Pollution entering or generated within PA							
9.1a Household sewage and urban wastewater	0	0	2	0	18	0	No
9.1b Sewage and wastewater from PA facilities	0	1	7	1	9	2	Yes
9.2 Industrial, mining and military effluents and discharges	3	2	6	0	9	0	Yes
9.3 Agricultural and forestry effluents	0	0	0	0	20	0	No
9.4 Garbage and solid waste	6	2	7	0	4	1	Yes
9.5 Air-borne pollutants	0	0	3	6	10	1	No
9.6 Excess energy	0	0	2	5	12	1	No
10. Geological events							
10.1 Volcanoes	0	0	1	4	15	0	No
10.2 Earthquakes/Tsunamis	1	0	4	4	10	1	No
10.3 Avalanches/Landslides	0	0	0	2	18	0	No
10.4 Erosion and siltation / deposition	14	4	1	0	1	0	Yes
11. Climate change and severe weather							
11.1 Habitat shifting and alteration	6	2	10	1	1	0	Yes
11.2 Droughts	2	2	9	0	7	0	Yes
11.3 Temperature extremes	6	2	11	0	0	1	Yes
11.4 Storms and flooding	3	3	10	2	0	2	Yes
12. Specific cultural and social threats							
12.1 Loss of cultural links, traditional knowledge and/or management practices	0	0	2	2	15	1	No
12.2 Natural deterioration of important cultural site values	0	0	4	1	14	1	No
12.3 Destruction of cultural heritage buildings, gardens, sites, etc	0	0	2	0	17	1	No
12.4 Effect of influence groups on IP values and freedom to decide	0	0	1	1	17	1	No
12.5 Loss of support to communities and projects due to changes in political leadership	1	2	8	0	8	1	Yes

Annex B2: Assessment of Threats in TRNP (METT Results 2016)

PROTECTED AREA THREATS	NAME OF PAMB MEMBERS/TMO STAFF																			
	Mary Grace Barber	Mateo F. Buncag, Jr.	Wilfredo C. Rama	Roy Magbanua	Segundo F. Conales Jr.	Zanie Seracarpio	Angelique Songco	Cresencio Caranay Jr.	Glenda G. Simon	Jerie F. Dejucos	Jumaiyah Macalabo-Sobere	Edora Mae Ubani	Bundal Harvey	Marivel P. Dygico	Terry Aquino	Gerlie Gedorio	Maria Retchie Pagliawan	Emmalyn Tura	Rowell Cayanalan Alarcon	Rosalie Ann Tarobago
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Residential and commercial development w/in PA																				
1.1 Housing & settlement	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.2 Commercial and industrial areas	NA	M		NA	NA		L	NA	NA	NA	NA	NA	NA	NA	L	NA	NA	NA	NA	NA
1.3 Tourism & recreation infrastructure	NA	H		NA	NA	NA	L	NA	NA	NA	NA	NA	NA	NA	NA	NA	L	L	L	L
2. Agriculture and aquaculture within PA																				
2.1 Annual and perennial non-timber crop cultivation	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
2.1a Utilization of portions of PA to upland vegetable & other agricultural crop farms	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
2.1b Illegal drug cultivation	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2.2 Wood & pulp plantations	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2.3 Livestock farming & grazing	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2.4 Marine and freshwater agriculture	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Energy production & mining																				
3.1 Oil & gas drilling	NA	NA			NA	NA	NA		L	L		ND	NA	NA	ND	NA	L	L	NA	NA
3.2 Mining/quarrying	NA	NA		NA	NA	NA	NA	NA	L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3.3 Energy generation, including from hydropower dams	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3.4 Treasure hunting / ship wreck recovery	NA				NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
4. Transportation and service corridors																				
4.1 Roads & railroads	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4.2 Utility and service lines	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4.3 Shipping lanes and canals	H	NA		L	L	L	M	L		H	L	L	L	H	H	NA	H	H	L	L
4.4 Flight paths	ND	NA		NA	ND	NA	L	NA	ND	L	NA	ND	NA	ND	M	NA	NA	NA	NA	NA
5. Biological resource use and harm within																				
5.1 Hunting, killing, and collecting of terrestrial animals	NA	NA	L	NA	L	NA	NA	NA	NA	NA	NA	M	NA	L	NA	NA	NA	NA	NA	NA
5.2 Gathering terrestrial plants or plant products (non-timber)	NA		L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5.3 Logging and wood harvesting	NA		L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5.4 Fishing, killing, and harvesting aquatic resources	NA		ND	L	L	L	NA	NA	H	M	NA	L	L	L	L	H	L	L	NA	L
5.5 Trawling, blast and poison fishing	NA		ND	L	L	ND	L	NA	L	M	NA	L		L	L	H	L	L	NA	NA
6. Human intrusions and disturbance within																				
6.1 Recreational activities and tourism	L					NA	L	L	M	M	L	L	L	L	L	L	L	L	L	L
6.2 War, civil unrest and military exercises	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA		NA	NA	NA	L
6.3 Research, education, and other work-related activities	ND			H	H	NA	L	H	L	L	H	H	H	L	L	H	L	L	H	L
6.4 Activities of PA managers	ND	M			NA	NA	L	NA	L	NA	NA	NA	L	L	L	H	NA	NA	NA	L
6.5 Deliberate vandalism, destructive activities or threats to PA staff and visitors	L	M			ND	NA	L	NA	L	L	NA	ND		L	L	L	L	L	NA	L

Annex B3: Assessment of Issues in TRNP (METT Results 2016)

Issue	Elements	PAMB MEMBERS																				Total Score	Total Ave Score	Max Score	%	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20					
1	Legal Status	Context	3	2		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	56	3	3		
	Subtotal Context																					56	3	3	98%	
3	Law Enforcement	Input	3		2	2	2	3	2	2	3	3	2	3	2	3	3	3	3	2	2	45	3	3		
9	Resource Inventory	Input	3	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	40	2	3		
13	Staff Numbers	Input	3	3		3	3	3	3	2	3	2	2	2	3	3	2	2	2	3	2	49	3	3		
14	Staff Training	Input	3	3		3	3	3	3	2	2	2	2	2	3	3	2	3	3	3	2	47	3	3		
15	Current Budget	Input	3	2	2	2	3	3	2	3	1	2	2	2	2	2	2	2	2	3	42	2	3			
16	Security of Budget	Input	1	2	1	1	3	2	2	2	1	1	1	2	2	1	2	0	0	2	1	27	1	3		
18	Equipment	Input	3	3	2	2	2	3	3	2	2	2	2	3	2	2	3	2	2	3	3	46	2	3		
29	Fees	Input	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	57	3	3		
29.a	Accessed IPAF	Input		1				1							1							3	1	1		
	Subtotal Input																					356	20	25	79%	
25	Economic Benefit	Output/Outcome	3	3		3	3	3	3	3	2	3	3	3	3	3	2	3	3	3	3	55	3	3		
27	Visitor Facilities	Output/Outcome	3	2	2	2	2	3	3	2	3	3	3	3	3	3	3	3	2	3	3	51	3	3		
30	Condition of Values	Output/Outcome	3	3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	57	3	3		
30.a	Assessment of condition of Values	Output/Outcome	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	1	1		
30.b	Management programs addressing threats to biodiversity	Output/Outcome	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	1	1		
30.c	Activities to maintain key biodiversity values are routine part of park management	Output/Outcome		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	1	1		
	Subtotal Output/Outcome																					220	12	12	96%	
2	Protected Area Regulations	Planning	3	3		2	2	3	3	3	3	3	2	2	3	3	3	3	2	3	3	2	51	3	3	
4	Protected Area Objectives	Planning	3	3		2	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	52	3	3		
5	Protected Area Design	Planning	3			2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	50	3	3		
7	Management Plan	Planning	3	3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	57	3	3		
7.a	Adequate Opportunity for stakeholders in management plan	Planning		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	1	1		
7.b	Periodic Review and Updating of Management Plan	Planning		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	1	1		
7.c	Research and Monitoring results incorporate in the plan	Planning		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	1	1		
7.d	Operations Manual	Planning		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	1	1		
7e	Enforcement Manual	Planning		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	1	1		
8	Regular workplan	Planning	3	3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	57	3	3		
21	Planning for adjacent land and water use	Planning	3	3		3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	53	3	3		
21.a	Land and Water planning for habitat conservation	Planning		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	1	1		
21.b	Land and Water planning for connectivity	Planning		1	1			1	1	1		1	1	1	1	1	1	1	1	1	1	16	1	1		
21.c	Land and Water planning for ecosystem services and species conservation	Planning		1	1			1	1	1	1	1	1	1	1	1	1	1		1	1	15	1	1		
	Subtotal Planning																					458	25	26	98%	
6	Protected Area Boundary Demarcation	Process	3	2		2	2	1	3	3	3	2	3	3	3	3	3	2	3	3	3	50	3	3		
10	Protection Systems	Process	3			3	3	3	3	3	3	3	2	3	2	3	3	3	3	3	3	52	3	3		
11	Research	Process	3	2		3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	55	3	3		
12	Resource Management	Process	3	3		3	2	2	3	3	2	3	3	2	3	2	2	3	3	3	3	51	3	3		
17	Management of Budget	Process	3	2		3	3	2	3	3	3	3	3	3	3	3	3	2	3	0	3	2	50	3	3	
19	Maintenance of Equipment	Process	3	3		2	3	3	3	3	3	3	2	2	3	3	3	3	2	2	2	50	3	3		
20	Education and Awareness	Process	3	2		3	3	3	3	3	2	3	3	3	3	2	3	3	3	3	3	51	3	3		
22	State and commercial neighbors	Process	3	3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	57	3	3		
23	Indegenous People	Process	3	2			3	3	3	3	3	3	3	3		3	3	3	3	3	3	47	3	3		
24	Local Communities	Process	3	3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	57	3	3		
24.a	Communication and trust between local and IPs	Process		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	1	1		
24.b	Community welfare	Process		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	1	1		
24.c	Support of IPs to PA	Process		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	1	1		
26	Monitoring and Evaluation	Process	3	2		3	3	3	3	2	3	2	3	3	3	3	3	3	3	3	2	2	52	3	3	
28	Commercial Tourism Operators	Process	3	2		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	56	3	3		
	Subtotal Process																					685	37	39	94%	
																							97			
																							105			
																							92%			

Annex B4: TRNP MEAT Results 2016

Annex C1: Summary of Threats in TIWS (METT Results 2016)

PROTECTED AREA THREATS	High	Medium	Low	No Data	Not Applicable	No Answer	>50% Response
1 Residential and commercial development w/in PA							
1.1 Housing & settlement	2	1	1	0	1	2	Yes
1.2 Commercial and industrial areas	0	2	1	0	3	1	No
1.3 Tourism & recreation infrastructure	0	0	3	0	3	1	
2. Agriculture and aquaculture within PA							
2.1 Annual and perennial non-timber crop cultivation	0	0	4	0	2	1	Yes
2.1a Utilization of portions of PA to upland vegetable & other agricultural crop farms	0	1	2	0	2	2	No
2.1b Illegal drug cultivation	0	0	0	1	5	1	No
2.2 Wood & pulp plantations	0	0	0	1	5	1	No
2.3 Livestock farming & grazing	0	0	3	1	2	1	No
2.4 Marine and freshwater agriculture	1	0	0	0	4	2	No
3. Energy production & mining within/outside a PA							
3.1 Oil & gas drilling	0	0	1	0	6	0	No
3.2 Mining/quarrying	0	2	4	0	1	0	Yes
3.3 Energy generation, including from hydropower dams	0	0	2	0	5	0	No
3.4 Treasure hunting / ship wreck recovery	0	0	0	1	6	0	No
4. Transportation and service corridors within a PA							
4.1 Roads & railroads	0	1	2	0	4	0	No
4.2 Utility and service lines	0	0	1	1	5	0	No
4.3 Shipping lanes and canals	0	3	2	0	2	0	Yes
4.4 Flight paths	0	0	1	0	6		No
5. Biological resource use and harm within a PA							
5.1 Hunting, killing, and collecting of terrestrial animals	0	2	0	0	5	0	No
5.2 Gathering terrestrial plants or plant products (non-timber)	0	0	2	2	3	0	No
5.3 Logging and wood harvesting	0	0	2	0	5	0	No
5.4 Fishing, killing, and harvesting aquatic resources	1	1	3	0	2	0	Yes
5.5 Trawling, blast and poison fishing	3	2	2	0	0	0	Yes
6. Human intrusions an disturbance within a PA							
6.1 Recreational activities and tourism	0	0	1	0	6	0	No
6.2 War, civil unrest and military exercises	0	0	0	0	7	0	No
6.3 Research, education, and other work-related activities	0	0	3	0	4	0	No
6.4 Activities of PA managers	0	0	2	0	5	0	No
6.5 Deliberate vandalism, destructive activities or threats to PA staff and visitors	0	0	2	0	5	0	No

PROTECTED AREA THREATS	High	Medium	Low	No Data	Not Applicable	No Answer	>50% Response
7. Natural system modifications							
7.1 Fire including arson	0	0	3	0	4	0	No
7.2 Dams ,hydrological modification and water management/use	0	0	0	0	7	0	No
7.3a Increased fragmentation within PA	0	1	3	0	3	0	Yes
7.3b Isolation from other natural habitat	0	0	0	1	6	0	No
7.3c Other 'edge effects' on park values	0	0	3	1	3	0	No
7.3d Loss of keystone species	0	2	2	0	3	0	Yes
8. Invasive and other problematic species and genes							
8.1 Invasive non-native/alien plants	0	0	2	0	5	0	No
8.1a Invasive non-native/alien animals	1	1	4	0	1	0	Yes
8.1b Pathogens	0	0	0	2	5	0	No
8.2 Introduced genetic material	1	0	0	1	5	0	No
9. Pollution entering or generated within PA							
9.1a Household sewage and urban wastewater	2	1	1	0	2	1	Yes
9.1b Sewage and wastewater from PA facilities	1	1	1	0	3	1	No
9.2 Industrial, mining and military effluents and discharges	0	0	1	1	5	0	No
9.3 Agricultural and forestry effluents	0	0	0	1	6	0	No
9.4 Garbage and solid waste	3	2	2	0	0	0	Yes
9.5 Air-borne pollutants	0	2	2	1	2	0	Yes
9.6 Excess energy	0	0	1	0	3	2	No
10. Geological events							
10.1 Volcanoes	0	0	4	1	1	1	Yes
10.2 Earthquakes/Tsunamis	0	0	0	1	6	0	No
10.3 Avalanches/Landslides	0	0	1	1	5	0	No
10.4 Erosion and siltation / deposition	3	2	2	0	0	0	Yes
11. Climate change and severe weather							
11.1 Habitat shifting and alteration	1	0	6	0	0	0	Yes
11.2 Droughts	1	1	1	1	3	0	No
11.3 Temperature extremes	0	1	2	3	1	0	No
11.4 Storms and flooding	0	0	1	1	5	0	No
12. Specific cultural and social threats							
12.1 Loss of cultural links, traditional knowledge and/or management practices	0	0	3	1	3	0	No
12.2 Natural deterioration of important cultural site values	0	0	2	2	3	0	No
12.3 Destruction of cultural heritage buildings, gardens, sites, etc	0	0	0	2	5	0	No
12.4 Effect of influence groups on IP values and freedom to decide	0	1	0	1	5	0	No
12.5 Loss of support to communities and projects due to changes in political leadership	0	3	3	0	1	0	Yes

Annex C2: Assessment of Threats in TIWS (METT Results 2016)

PROTECTED AREA THREATS	NAME OF PAMB MEMBERS						
	Minda Bairulla	Junnibert Tubo	Benie Oliveros	Sonny Musilim	Fernando Samimi	Pablo delos Reyes, Jr.	Dr. Macmod Mamalangkap
	PASu	NFWM	T.I. Mun. Mayor	T.I. MPDC	TIWS PA Staff	BMB	BFAR-ARMM
1 Residential and commercial development w/in PA							
1.1 Housing & settlement	M	NA	L	M	H	H	M
1.2 Commercial and industrial areas	L	NA		M	NA	NA	M
1.3 Tourism & recreation infrastructure	NA	NA		L	L	NA	L
2. Agriculture and aquaculture within PA							
2.1 Annual and perennial non-timber crop cultivation	L	NA		L	L	NA	L
2.1a Utilization of portions of PA to upland vegetable & other agricultural crop farms	L	NA			M	NA	L
2.1b Illegal drug cultivation	NA	NA		ND	NA	NA	NA
2.2 Wood & pulp plantations	NA	NA		NA	NA	NA	ND
2.3 Livestock farming & grazing	L		L	NA	NA	L	ND
2.4 Marine and freshwater agriculture	NA	H			NA	NA	NA
3. Energy production & mining within/outside a PA							
3.1 Oil & gas drilling	NA	L	NA	NA	NA	NA	NA
3.2 Mining/quarrying	M	L	NA	L	L	M	L
3.3 Energy generation, including from hydropower dams	NA	L	NA	NA	NA	NA	L
3.4 Treasure hunting / ship wreck recovery	NA	ND	NA	NA	NA	NA	NA
4. Transportation and service corridors within a PA							
4.1 Roads & railroads	NA	NA	L	L	M	NA	NA
4.2 Utility and service lines	NA	NA	L	NA	NA	NA	ND
4.3 Shipping lanes and canals	L	M	M	NA	NA	L	M
4.4 Flight paths	NA	L	NA	NA	NA	NA	NA
5. Biological resource use and harm within a PA							
5.1 Hunting, killing, and collecting of terrestrial animals	NA	M	NA	NA	M	NA	NA
5.2 Gathering terrestrial plants or plant products (non-timber)	NA	ND	NA	NA	L	L	ND

PROTECTED AREA THREATS	NAME OF PAMB MEMBERS						
	Minda Bairulla	Junnibert Tubo	Benie Oliveros	Sonny Musilim	Fernando Samimi	Pablo delos Reyes, Jr.	Dr. Macmod Mamalangkap
	PASu	NFWM	T.I. Mun. Mayor	T.I. MPDC	TIWS PA Staff	BMB	BFAR-ARMM
5.5 Trawling, blast and poison fishing	H	M	L	M	L	H	H
6. Human intrusions an disturbance within a PA							
6.1 Recreational activities and tourism	NA	L	NA	NA	NA	NA	NA
6.2 War, civil unrest and military exercises	NA	NA	NA	NA	NA	NA	NA
6.3 Research, education, and other work-related activities	L	L	NA	L	NA	NA	NA
6.4 Activities of PA managers	NA	L	NA	L	NA	NA	NA
6.5 Deliberate vandalism, destructive activities or threats to PA staff and visitors	NA	L	NA	NA	NA	NA	L
7. Natural system modifications							
7.1 Fire including arson	L	NA	L	L	NA	NA	NA
7.2 Dams ,hydrological modification and water management/use	NA	NA	NA	NA	NA	NA	NA
7.3a Increased fragmentation within PA	NA	L	L	NA	M	NA	L
7.3b Isolation from other natural habitat	NA	ND	NA	NA	NA	NA	NA
7.3c Other 'edge effects' on park values	NA	ND	L	L	NA	NA	L
7.3d Loss of keystone species	NA	L	L	NA	NA	M	M
8. Invasive and other problematic species and genes							
8.1 Invasive non-native/alien plants	NA	L	NA	L	NA	NA	NA
8.1a Invasive non-native/alien animals	L	L	L	NA	L	H	M
8.1b Pathogens	NA	ND	ND	NA	NA	NA	NA
8.2 Introduced genetic material	NA	ND	NA	NA	NA	NA	H
9. Pollution entering or generated within PA							
9.1a Household sewage and urban wastewater	M	H	L	NA	NA	H	
9.1b Sewage and wastewater from PA facilities	NA	M	NA	NA		H	L
9.2 Industrial, mining and military effluents and discharges	NA	ND	NA	NA	L	NA	NA

PROTECTED AREA THREATS	NAME OF PAMB MEMBERS						
	Minda Bairulla	Junnibert Tubo	Benie Oliveros	Sonny Musilim	Fernando Samimi	Pablo delos Reyes, Jr.	Dr. Macmod Mamalangkap
	PASu	NFWM	T.I. Mun. Mayor	T.I. MPDC	TIWS PA Staff	BMB	BFAR-ARMM
9.5 Air-borne pollutants	M	ND	NA	NA	L	L	M
9.6 Excess energy		NA	NA			NA	L
10. Geological events							
10.1 Volcanoes	L	ND	L	L	L		NA
10.2 Earthquakes/Tsunamis	NA	ND	NA	NA	NA	NA	NA
10.3 Avalanches/Landslides	NA	ND	L	NA	NA	NA	NA
10.4 Erosion and siltation / deposition	H	L	M	M	H	H	L
11. Climate change and severe weather							
11.1 Habitat shifting and alteration	H	L	L	L	L	L	L
11.2 Droughts	H	ND	M	NA	L	NA	NA
11.3 Temperature extremes	M	ND	L	L	ND	ND	NA
11.4 Storms and flooding	NA	ND	L	NA	NA	NA	NA
12. Specific cultural and social threats							
12.1 Loss of cultural links, traditional knowledge and/or management practices	L	L	NA	NA	L	ND	NA
12.2 Natural deterioration of important cultural site values	NA	ND	L	NA	L	ND	NA
12.3 Destruction of cultural heritage buildings, gardens, sites, etc	NA	ND	NA	NA	NA	ND	NA
12.4 Effect of influence groups on IP values and freedom to decide	NA	M	NA	NA	NA	ND	NA
12.5 Loss of support to communities and projects due to changes in political leadership	M	M	L	NA	L	M	L

Annex C3: Assessment of Issues in TIWS (METT Results 2016)

	Issue	Elements	PAMB MEMBERS							Total Score	Total Ave Score	Max Score	%
			1	2	3	4	5	6	7				
1	Legal Status	Context	2	2	2	2		2	2	12	2	3	
	Subtotal Context									12	2	3	67%
3	Law Enforcement	Input	2			2	2	1	2	9	2	3	
9	Resource Inventory	Input	2	1	1	2	1	2	0	9	1	3	
13	Staff Numbers	Input	2	1	2	1	2	3	1	12	2	3	
14	Staff Training	Input	1	1	1	2	1	1	1	8	1	3	
15	Current Budget	Input	1	1	1	1	1	1	1	7	1	3	
16	Security of Budget	Input	1	1	0	1	1	2	0	6	1	3	
18	Equipment	Input	2	1	0	1	1	2	0	7	1	3	
29	Fees	Input	2	1	2	2	2	2	2	13	2	3	
29.a	Accessed IPAF	Input				0		1		1	1	1	
	Subtotal Input									72	11	25	45%
25	Economic Benefit	Output/Outcome	3	2	0	1	1	3	3	13	2	3	
27	Visitor Facilities	Output/Outcome	0	1		2	2	3	2	10	2	3	
30	Condition of Values	Output/Outcome	2	1	2	2	2	2	2	13	2	3	
30.a	Assessment of condition of Values	Output/Outcome	1	1	1	1	1	1	1	7	1	1	
30.b	Management programs addressing threats to biodiversity	Output/Outcome		1	1	1		1	1	5	1	1	
30.c	Activities to maintain key biodiversity values are routine part of park	Output/Outcome	1	1	1	1	1	1	1	7	1	1	
	Subtotal Output/Outcome									55	8	12	70%
2	Protected Area Regulations	Planning	2	1	2	2		3	1	11	2	3	
4	Protected Area Objectives	Planning	2	1	1	2	2	3	2	13	2	3	
5	Protected Area Design	Planning	2	1		2		3	0	8	2	3	
7	Management Plan	Planning	2	0	0	2	0	2	0	6	1	3	
7.a	Adequate Opportunity for stakeholders in management plan	Planning	1	1		1		1	1	5	1	1	
7.b	Periodic Review and Updating of Management Plan	Planning	1			1		1	1	4	1	1	
7.c	Research and Monitoring results incorporate in the plan	Planning	1			1		1		3	1	1	
7.d	Operations Manual	Planning						1	1	2	1	1	
7.e	Enforcement Manual	Planning			1			1		2	1	1	
8	Regular workplan	Planning	2	1	0	2	0	2	1	8	1	3	
21	Planning for adjacent land and water use	Planning	1	1	1	1	1	0	1	6	1	3	
21.a	Land and Water planning for habitat conservation	Planning	1		1	1			1	4	1	1	
21.b	Land and Water planning for connectivity	Planning	1	1	1	1			1	5	1	1	
21.c	Land and Water planning for ecosystem services and species conservation	Planning	1		1	1			1	4	1	1	
	Subtotal Planning									81	16	26	62%
6	Protected Area Boundary Demarcation	Process	1	2		2	0	2	0	7	1	3	
10	Protection Systems	Process	1	2	0	2		2	1	8	1	3	
11	Research	Process	3	1	1	2	1	3	1	12	2	3	
12	Resource Management	Process	2	0	2	2			2	8	2	3	
17	Management of Budget	Process	2	2	0	1	3	2	2	12	2	3	
19	Maintenance of Equipment	Process	1	1	0	0	1	3	1	7	1	3	
20	Education and Awareness	Process	2	1	1	2	0	2	1	9	1	3	
22	State and commercial neighbors	Process	3	3	2		2	2	0	12	2	3	
23	Indigenous People	Process	2	2		2	2	2	2	12	2	3	
24	Local Communities	Process	2	2	1	2	2	2	3	14	2	3	
24.a	Communication and trust between local and IPs	Process	1	1	1	1	1	1	1	7	1	1	
24.b	Community welfare	Process	1	1		1		1	1	5	1	1	
24.c	Support of IPs to PA	Process	1	1				1	1	4	1	1	
26	Monitoring and Evaluation	Process	3	2	2	2	2	3	2	16	2	3	
28	Commercial Tourism Operators	Process	0	1	0	0	0	0	0	1	0	3	
	Subtotal Process									134	21	39	54%
	TOTAL ROUNDED AVERAGE SCORE										59		
	MAXIMUM SCORE										105		
	% OF MAXIMUM SCORE										56%		

Annex C4: TIWS MEAT Results 2016

Appendices

Appendix 1: Management Effectiveness Tracking Tool (Version 21 Mar 2013)

Appendix 2: MPA Management Effectiveness Assessment Tool

Appendix 3: MEAT and Enhanced METT Workshop Flow

Day 1	Activity	Logistics Needed
8:00-9:00	Registration	Attendance Sheets, Kit
9:00-9:30	Opening Ceremonies	
	Opening Prayer	Laptop and LCD
	Philippine National Anthem	Laptop and LCD
	Messages	
	Workshop Objectives and Schedule	
9:30-10:00	Presentation of the assessment tools - METT and MEAT	Facilitator
10:00-10:15	Break	
10:15-11:30	Presentation of the previous METT (2011 & 2014) results	Facilitator
11:30-12:00	Enhanced METT Assessment	Facilitator and Participants
12:00-1:00	Lunch Break	
1:00-3:00	Continuation of the Enhanced METT Assessment	Facilitator and Participants
3:00-3:15	Break	
3:15-3:30	Presentation of the previous MEAT results	Facilitator
3:30-5:00	MEAT Assessment on Plenary	Facilitator and Participants
Day 2		
8:00-8:30	Registration and Recapitulation	Participant/Secretariat
8:30-9:00	Presentation of 2016 Assessment Results	Facilitator
9:00-11:00	Action Planning to address the needs resulting from the assessment	Participants
11:00-11:30	Presentation of action plan	
11:30-12:30	Synthesis Closing remarks	