

Tubbataha Reef National Park information requirements for inclusion in CTMPAs Categories 3 or 4¹

CTMPAS NOMINATION FORM

Part 1. Data Attributes in the CT Atlas and Core (Minimum) Data Requirements		
	Attributes	Response
1.	CT Atlas ID #	4022400
1.1.	Country^b	Philippines
1.2.	Longitude^b	119.91
1.3.	Latitude^b	8.90
1.4.	Name^b	Tubbataha Reef National Park
1.5.	Designation^b	National Park (National Integrated Protected Area System)
1.6.	Legal/Formal Instrument	Presidential Proclamation 306 (1998), Presidential Proclamation 1126 (2006) and Republic Act 10067 (2010) (http://www.tubbatahareef.org/downloads/ra_10067.pdf)
1.7.	Designation Type^b	National
1.8.	Domain^b	Marine-Terrestrial
1.9.	Status^b	Designated
1.10.	Date Established^b	11/08/1988
1.11.	Reported area^b (ha)	97,030
1.12.	Total marine area^b (ha)	97,029
1.13.	Management Plan^b	Yes

1.14.	IUCN Management Category	II
1.15.	International Convention	UNESCO-MAB Biosphere Reserve (1990), Ramsar Site (1999), World Heritage Site (1993)
1.16.	Administrative unit level-1	Administrative unit level: National State/Province/District: Palawan
1.17.	Zonation	Yes. Republic Act 10067 specifies the whole area of the park (97,030 ha) as the core zone plus a 10-nautical mile buffer zone. The Management Plan for the Buffer zone is currently being developed. (Tubbataha Management Office, personal communication, also http://tubbatahareef.org/wordpress/wp-content/uploads/2012/11/Administrative-Order-No.-1-Series-of-2012.pdf)
1.18.	No Take	All
1.19.	Reported No Take Area (ha)	97,030
1.20.	Management Effectiveness Model	Management Effectiveness Assessment Tool
1.21.	Management Effectiveness Rating	Level 3 - 96% (Dizon EC, Geronimo R, Quicho R Jr. 2013. Benchmarking the management effectiveness of nationally-managed marine protected areas in the Philippines and policy recommendations. Final Report for USAID Coral Triangle Support Partnership and Conservation International – Philippines, September 2013.) http://www.coraltriangleinitiative.org/sites/default/files/resources/58_Benchmarking%20the%20Management%20Effectiveness%20of%20Nationally-Managed%20Marine%20Protected%20Areas%20in%20the%20Philippines%20with%20Policy%20Recommendations_Final%20Report.pdf
1.22.	Source	Angelique Songco, Protected Area Superintendent, Tubbataha Management Office, tmo@tubbatahareef.org
1.23.	Validated	Yes. Department of Environment and Natural Resources – Biodiversity Management Bureau – Coastal and Marine Division

1.24.	Consent to display and share	Yes
1.25.	Notes	

Part 2. Information Requirements Showing Regional Significance of Sites Nominated for Category 3 or 4 ^c		
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2.1.	Site forms a network (or an equivalent)	<p>Tubbataha is one of the elements of the Tri-national Sea Turtle Network of Protected Areas in the Sulu-Sulawesi Marine Ecoregion</p> <p>http://www.conservation.org/global/philippines/publications/Pages/Network%20of%20Protected%20Areas%20for%20Marine%20Turtles%20in%20the%20SSS.aspx</p> <p>This MPA contributes the largest no-take area to the Philippines' total marine no-take area (>60% of the country's total)</p> <p>Weeks R, Russ G, Alcala A, White AT. 2009. Effectiveness of marine protected areas in the Philippines for biodiversity conservation. <i>Conserv Biol</i> 24(2):531–540.</p>
2.2.	Site targets an identified regional priority area, habitat or species	<p>Tubbataha is a world heritage site (http://www.worldheritagesite.org/sites/tubbatahareef.html) and a key biodiversity area (Ambal, R. G. R., Duya, M. V., Cruz, M. A., Coroza, O. G., Vergara, S. G., De Silva, N., ... & Tabaranza, B. 2012. <i>Key Biodiversity Areas in the Philippines: Priorities for Conservation. Journal of Threatened Taxa</i>, 4(8).)</p>
2.3.	Site adheres to at least two of the following ecological design criteria:	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Representation <input checked="" type="checkbox"/> Replication <input checked="" type="checkbox"/> Resilience <input checked="" type="checkbox"/> Connectivity <input checked="" type="checkbox"/> Critical areas
2.3.1.	Representation	<ul style="list-style-type: none"> • Contains 401 out of 461 species of zooxanthellate scleractinians (hard corals) found in the Philippines (http://tubbatahareef.org/downloads/research_reports/TRNP_REPORT/2003_research_report.pdf#page=105). • 600 species of fish (Tubbataha Management Office compiled from various fish surveys listed on http://tubbatahareef.org/wp/scientific_research) • 12 species of sharks (Tubbataha Management Office compiled from various sightings) • 13 species of dolphins & whales (Aquino, M. T., & Alarcon, R. 2010. Monitoring the Cetacean populations in the Tubbataha Reefs Natural Park, Cagayancillo, Palawan, Philippines) • 100 species of birds (Arne Erik Jensen. 2013. Field Report: Monitoring and Inventory of the Seabirds and their breeding areas in Tubbataha Reefs Natural Park & World Heritage Site.) • And also nesting Hawksbill & Green sea turtles. <p>http://www.ramsar.org/pdf/case_studies_tourism/Philippines/Philippines_Tubbataha_EN-.pdf</p>

Part 2. Information Requirements Showing Regional Significance of Sites Nominated for Category 3 or 4^c

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2.3.2.	Replication	The National Park was expanded to protect the reefs around 3 sites (South Islet and 6-km away North Islet and 20-km away Jessie Beazley Reef) thus providing replication (http://tubbatahareef.org/wordpress/wp-content/uploads/2012/10/tmo_map1.jpg)
2.3.3.	Resilience	“In comparison to other Philippine reefs, the corals of Tubbataha have recovered well from the bleaching events. Scientists suspect that this is due to the reefs protected status, they can recover from one stress because they do not have to deal with others, such as pollution and fishing.” Temporal Overview of Impact of the 1997-1998 Mass Bleaching on Recovery of Two Palawan Reefs: Outer Bacuit Bay, El Nido(Palawan Shelf), and Off-Shore Tubbataha (Sulu Sea). Karen Lou FRANCISCO, Porfirio ALINO, Miledel Christine QUIBILAN, Wilfredo LICUANAN. Proceedings of the 11th International Coral Reef Symposium, Ft. Lauderdale, Florida, 7-11 July 2008 as described by http://tubbatahareef.org/wp/coral_bleaching
2.3.4.	Connectivity	“Tubbataha Reefs, Jessie Beazley ...are key sources of coral and fish larvae, seeding the greater Sulu Sea” [Note: Eastern coast of Palawan]. “Tubbataha Reefs have a decisive role in sustaining the fisheries in surrounding areas, thus providing food and livelihoods for hundreds of thousands of Filipinos.” Campos W.L., Beldia II P., Villanoy C., and Aliño P. 2008. Using Ichthyoplankton Distribution in Selecting Sites for an MPA Network in the Sulu Sea, Philippines. Proceedings of the 11th International Coral Reef Symposium, Ft. Lauderdale, Florida, 7-11 July 2008 as cited in www.tubbatahareef.org
2.3.5.	Critical areas protected	<p>“The last known major breeding of the Black Noddy <i>Anous minutus worcestri</i>, one of the four known remaining breeding areas for the Sooty Tern <i>Sterna fuscata nubilosa</i> (Tubbataha Reefs and Lawak Island, the Philippines, Layang-layang, Sabah, Malaysia, and the Paracel Islands, China), and the last known breeding area for the Masked Booby <i>Sula dactylatra personata</i> (Wells 1991, Heegaard and Jensen 1992, Manamtam (in litt.) and de Korte (in litt.).” (http://www.conservation.org/global/philippines/fmg/articles/Documents/Seabirds-Cagayan-Ridge.pdf)</p> <p>“While there are no published accounts of abundance estimates for this reef shark, work in progress by Robbins (unpublished data) suggests that Tubbataha supports the highest population density of <i>T. obesus</i> known to date.” (http://tubbatahareef.org/downloads/research_reports/TRNP_REPORT/2005_top_predator_report.pdf)</p>
2.4.	Site achieves a threshold level of management effectiveness	Management Effectiveness Assessment Tool Level 3 - 96% (Dizon EC, Geronimo R, Quicho R Jr. 2013. Benchmarking the management effectiveness of nationally-managed marine protected areas in the Philippines and policy recommendations. Final Report for USAID Coral Triangle Support Partnership and Conservation International – Philippines, September 2013.) http://www.coraltriangleinitiative.org/sites/default/files/resources/58_Benchmarking%20the%20Management%20Effectiveness%20of%20Nationally-Managed%20Marine%20Protected%20Areas%20in%20the%20Philippines%20with%20Policy%20Recommendations_Final

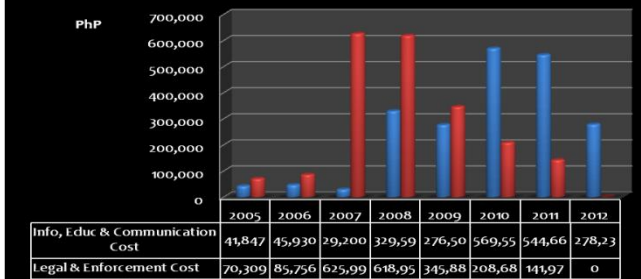
Part 2. Information Requirements Showing Regional Significance of Sites Nominated for Category 3 or 4^c

	Attributes	Response																		
		%20Report.pdf																		
2.4.1.	Formal or legal basis for establishment	Philippine Republic Act 10067 http://www.tubbatahareef.org/downloads/ra_10067.pdf																		
2.4.2.	Management body established and functioning	<p>The Tubbataha Protected Area Management Board (TPAMB) is composed of 21 members, as directed under RA 10067. The TPAMB formulated the IRR for RA 10067 within six months of the enactment of the law and has since made amendments to ensure that the same is responsive to current challenges. The TPAMB and its Executive Committee has conducted its regular meetings at least 75% of the time for the TPAMB, which meets quarterly, and 85% of the monthly ExeCom meetings.</p> <table border="1" data-bbox="583 662 1224 963"> <thead> <tr> <th></th> <th>TPAMB</th> <th>Execom</th> </tr> </thead> <tbody> <tr> <td># meetings conducted</td> <td>69</td> <td>141</td> </tr> <tr> <td>Administrative resolutions approved</td> <td>105</td> <td>61</td> </tr> <tr> <td>Regulatory resolutions approved</td> <td>3</td> <td>9</td> </tr> <tr> <td>Operational resolutions approved</td> <td>37</td> <td></td> </tr> <tr> <td>Other resolutions approved</td> <td></td> <td>15</td> </tr> </tbody> </table> <p>Source: Tubbataha Management Office. 2013. PA Awards application. Unpublished</p>		TPAMB	Execom	# meetings conducted	69	141	Administrative resolutions approved	105	61	Regulatory resolutions approved	3	9	Operational resolutions approved	37		Other resolutions approved		15
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2.4.3.	Management and/or zoning plan approved and implemented	<p>http://tubbatahareef.org/wordpress/wp-content/uploads/2012/11/Management-Plan-2011.pdf</p> <p>See staffing in: http://tubbatahareef.org/wp/management#tubbataha_management_office</p> <p>http://tubbatahareef.org/wp/financing_conservation</p> <p>For the last five years (2009-2013), general funding sources are as follows:</p> <ul style="list-style-type: none"> • 27% external sources, mostly in the form of restricted project grants • 41% from conservation fees • 32% in-kind contribution from partner agencies, Philippine Navy, Philippine Coast Guard, WWF-Phil & the Provincial Government of Palawan <p>Source: Tubbataha Management Office. 2013. PA Awards application. Unpublished</p>																		

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	Attributes	Response
2.4.4.	Resource and socio-economic baseline assessment completed	Yes, note various biophysical reports and socio-economic assessment in http://tubbatahareef.org/wp/scientific_research
2.4.5.	Site conducts regular biophysical and socioeconomic monitoring and analysis of results	<ul style="list-style-type: none"> • Seabirds population trend. Research result showed positive population growth over time. The 2012 count of 30,168 individuals is the highest count ever and 120% higher than the first detailed count made in 1981. (http://tubbatahareef.org/downloads/research_reports/seabird_trip_report_final.pdf) • Fish biomass/density. Fish biomass showed a general increasing trend from 1998 at 150 mt/sqm to almost double in 2011 at 310.13 mt/sqm, particularly the indicator species: butterfly fish, commercial fishes and other groupers. As to the density, an increasing trend was also observed with a recorded count of 1,452.07 individuals/100m2 at 10m depth as of 2011. • Coral cover. Hard coral cover showed an increasing trend over the years with a total coral cover of 51.62% in 2011, while soft coral cover appeared to be stable over the years. (see Dygico et al. 2013. Achieving MPA effectiveness through application of responsive governance incentives in the Tubbataha reefs. Mar. Policy 41:87-94) Source: Tubbataha Management Office. 2013. PA Awards application. Unpublished http://tubbatahareef.org/wp/scientific_research <p>“Monitoring for the last 15 years in Tubbataha has shown that the live coral cover has been stable after the bleaching of 1998, when coral cover declined by about 22% (Fig. 2). Fish biomass in the TRNP remains stable at 278 mt/km2, still the highest recorded in the Philippines.” Dygico M, et al. 2013. Achieving MPA effectiveness through application of responsive governance incentives in the Tubbataha reefs. Mar. Policy 41:87-94.</p> <p>“This aspect of management is evaluated every three years and evaluation results in 2008 showed that of the seven indicators applied, only one indicator was indeterminate while the other six were positive. The Park management appears to be effectively attaining its objectives, with an increased fish catch per unit effort in Cagayancillo, an improving level of understanding of human impacts on resources, and an increase in household income by 26% from 2004 to 2007.” TMO (Tubbataha Management Office). Management effectiveness evaluation report 2009. (see attachment MEE_Report_2009.pdf)</p>
2.4.6.	Site conducts Information, Education,	http://tubbatahareef.org/wp/education_outreach Please also see attached “TRNP IEC PLAN.pdf”

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	Communication (IEC), awareness programs	<p>The chart below shows in red investments on enforcement from 2005 – 2012. The bars in blue indicate investments in IEC. Notice how enforcement incidents decreased (see 2.4.7. below) with an increase in IEC allocations implying effectiveness of IEC program.</p>  <table border="1" data-bbox="604 667 1199 743"> <thead> <tr> <th></th> <th>2005</th> <th>2006</th> <th>2007</th> <th>2008</th> <th>2009</th> <th>2010</th> <th>2011</th> <th>2012</th> </tr> </thead> <tbody> <tr> <td>Info, Educ & Communication Cost</td> <td>43,847</td> <td>45,930</td> <td>29,200</td> <td>329,59</td> <td>276,50</td> <td>569,55</td> <td>544,66</td> <td>278,23</td> </tr> <tr> <td>Legal & Enforcement Cost</td> <td>70,309</td> <td>85,756</td> <td>625,99</td> <td>618,95</td> <td>345,88</td> <td>208,68</td> <td>141,97</td> <td>0</td> </tr> </tbody> </table> <p>Source: Tubbataha Management Office. 2013. PA Awards application. Unpublished</p>		2005	2006	2007	2008	2009	2010	2011	2012	Info, Educ & Communication Cost	43,847	45,930	29,200	329,59	276,50	569,55	544,66	278,23	Legal & Enforcement Cost	70,309	85,756	625,99	618,95	345,88	208,68	141,97	0	
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2.4.7.	Site conducts effective enforcement	<p>http://tubbatahareef.org/wp/law_enforcement</p> <p>http://tubbatahareef.org/wordpress/wp-content/uploads/2012/11/Compliance-and-Enforcement-Plan-2012.pdf</p> <p>“A decrease of 88% in arrests was observed between the period 2007-2009 and 2010-2012. The year 2007-2009 is used as baseline because this was when illegal fishers started entering the park on a more or less regular basis and when enforcement data was consistently taken. Below is a table of enforcement action for the period 2007-2012:</p> <table border="1" data-bbox="583 1060 1121 1360"> <thead> <tr> <th>Year</th> <th>Nr. of Arrests</th> <th>Number of individuals</th> <th>Nr. of cases filed</th> </tr> </thead> <tbody> <tr> <td>2007</td> <td>11</td> <td>146</td> <td>43</td> </tr> <tr> <td>2008</td> <td>7</td> <td>86</td> <td>20</td> </tr> <tr> <td>2009</td> <td>7</td> <td>93</td> <td>13</td> </tr> <tr> <td>2010</td> <td>2</td> <td>21</td> <td>5</td> </tr> <tr> <td>2011</td> <td>1</td> <td>6</td> <td>1</td> </tr> <tr> <td>2012</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	Year	Nr. of Arrests	Number of individuals	Nr. of cases filed	2007	11	146	43	2008	7	86	20	2009	7	93	13	2010	2	21	5	2011	1	6	1	2012	0	0	0
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		<p>The decrease in arrests could be attributed, not only to vigilant enforcement but to the marked increase in information, education and communications initiative by TMO. The data for 2007 suggest that one case was filed on average every 8.5 days, indicating the heavy toll on time, funds and personnel time that prosecution exacted from TMO. In none of the cases has compromise been resorted to, giving a strong signal to the public that all illegal use cases will be dealt with consistently and with reasonable speed. Enforcement effort has remained the same since 2007 but no arrest was made by 2012, possibly indicating that illegal use has declined.</p> <p>A total of 184 personnel from the Philippine Navy, Philippine Coast Guard and Municipality of Cagayancillo, who compose the composite team of marine park rangers (MPR) together with TMO rangers, have been trained prior to assignment to TRNP. MPRs conduct enforcement, visitor management, research and repair and maintenance activities.”</p> <p>Source: Tubbataha Management Office. 2013. PA Awards application. Unpublished (<i>refined for clarity</i>)</p>
2.4.8.	Multi-stakeholder involvement and participation in management	<p>“The cultivation of partnerships and primacy of the use of participatory mechanisms is embodied in the TRNP Act of 2009 (see multi-stakeholder management body http://tubbatahareef.org/wp/management#tubbataha_management_office). Experience in the management of TRNP has proven that results are likely to be realized when the costs and benefits of conservation are shared among a broad array of stakeholders. Below are some of the partners in the management of Tubbataha, with engagement that range from active enforcement to technical, financial and moral support including information campaigns and research:</p> <ul style="list-style-type: none"> • Philippine and foreign government agencies: Department of Environment and Natural Resources (DENR), <i>Tourism Infrastructure and Enterprise Zone Authority (TIEZA)</i>, Department of Tourism, Department of Agriculture-Bureau of Fisheries and Aquatic Resources, Provincial Government of Palawan, Municipal Government of Cagayancillo, Naval Forces West (NAVFORWEST), Philippine Coast Guard, Western Command (WESCOM), <p>The above-named agencies have been actively involved in the conservation of Tubbataha since 1988, when it was established. DENR, in cooperation with NGOs, initiated the drafting of the Tubbataha Management Plan in 1992 and has been involved in regular reviews of the plan to date. DOT provided enforcement funds and will provide the bulk of funds for the construction of the new ranger station in TRNP. DA-BFAR provided funds for the rehabilitation of the ranger station in 2008. The Provincial Government of Palawan has been at the helm of management since 1995. The Armed Forces of the Philippines, the Philippine Coast Guard, and Municipality of Cagayancillo provide the manpower for the</p>

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		<p>conduct of law enforcement in the park. Support from government agencies, although intermittent when it comes to funding, is consistent when it comes to technical matters.</p> <ul style="list-style-type: none"> • Foreign government agencies: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), U.S. Peace Corp, United States Agency for International Development (USAID) • Civil society organizations: Worldwide Fund for Nature (WWF)-Philippines, Conservation International-Philippines <p>WWF-Phils has been involved in the management of TRNP since 1997, especially focusing on research, which it continues to conduct to this day. Of the above-named NGOs, it is the one involved in field operations, whilst the others provide financial support for specific projects, e.g., seabird banding, environmental education, enforcement, etc.</p> <ul style="list-style-type: none"> • Private sector: Pilipinas Shell Foundation, Inc. (PSFI), Johnson & Johnson-Bonamine (through UNESCO-Philippines), Global Mala, MAD Kahuna, College of St. Benilde, various dive operators, Bencab Museum, Oris Watch, Jaeger-LeCoultre, Cebu Pacific (thru WWF), Banco de Oro (thru WWF).” <p>Source: Tubbataha Management Office. 2013. PA Awards application. Unpublished (<i>refined for clarity</i>)</p>
2.4.9.	Increased livelihood opportunities	<p>http://tubbatahareef.org/wp/local_community_support Tubbataha has contributed to the fisheries yields of surrounding fishing communities and to the dive tourism industry (mainly through live aboards).</p> <p>In addition, a “total of PhP4.08M has been released to the LGU of Cagayancillo, representing 10% of the total conservation fees collected from 1988-2012. TMO also continues to technically assist the municipality in its micro-financing initiatives.”</p> <p>Source: Tubbataha Management Office. 2013. PA Awards application. Unpublished</p>
2.4.10.	Research and development	<p>Management has continuously improved as documented in Dygico M, et al. 2013. Achieving MPA effectiveness through application of responsive governance incentives in the Tubbataha reefs. Mar. Policy 41:87-94.</p>

Part 3. Nominating Authority			
	Attributes	Endorsement	Explanatory notes
3.1.	Endorsement of CTI Country Focal Point	Dr. Theresa Mundita S. Lim, Director Biodiversity Management Bureau Department of Environment and Natural Resources Ninoy Aquino Parks and Wildlife Center North Avenue, Diliman 1101, Quezon City Philippines Tel. +63-2-9246031, Email planning@pawb.gov.ph	Please provide name, signature and date as well as name of organization, full address and contact information

¹ This form is developed to assist countries in nominating their CTMPAS sites in response to the criteria set out in the CTMPAS Framework and Action Plan as explained in Annex 3, page 63 in the CTMPAS Framework document.

^b Core (minimum) attributes required for an MPA to be included as a recognized CTMPAS site (Category 1 or higher).

^c This form is intended to guide the countries in submitting their information. Not every site or country will be able to fill in all the categories of information but if information is lacking, a simple assessment, summary or explanation will help guide the CTMPAS Advisory Committee.