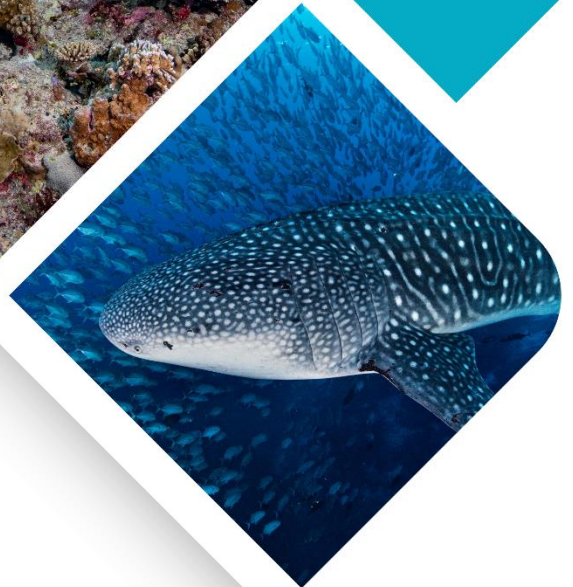


2022-2031



**TUBBATAHA REEFS NATURAL PARK  
AND WORLD HERITAGE SITE**

**PROTECTED AREA MANAGEMENT PLAN**



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2022-2031

*Cover photos: Yvette Lee, Tet Lara, and Segundo Conales*

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## List of Acronyms

AO	Administrative Order
ASEAN	Association of Southeast Asian Nations
ATBA	Area-to-be-Avoided
CEPA	Communications, Education, and Public Awareness
DENR	Department of Environment and Natural Resources
DRRM	Disaster Risk Reduction and Management
EAAFP	East-Asian Australasian Flyway Partnership
ERM	Ecosystem Research and Monitoring
GAD	Gender and development
IMO	International Maritime Organization
LGU	Local Government Unit
MEE	Management Effectiveness Evaluation
MPA	Marine Protected Area
MPR	Marine Park Rangers
NIPAS	National Integrated Protected Areas System
NGO	Non-Government Organizations
OUV	Outstanding Universal Value
PASu	Protected Area Superintendent
PCG-MEPU	Philippine Coast Guard - Maritime Environmental Protection Unit
PES	Payment for Ecosystem Services
PSSA	Particularly Sensitive Sea Area
SEP	Strategic Environmental Plan for Palawan
SOLAS	Safety of Life at Sea
TAB	Tubbataha Adjudication Board
TIEZA	Tourism Infrastructure and Enterprise Zone Authority
TMO	Tubbataha Management Office
TPAMB	Tubbataha Protected Area Management Board
TRNP	Tubbataha Reefs Natural Park
UNESCO	United Nations Educational, Scientific, and Cultural Organization

## EXECUTIVE SUMMARY

Tubbataha Reefs Natural Park and World Heritage Site (TRNP) lies in the middle of the Sulu Sea, 92 nautical miles southeast of Puerto Princesa City, Palawan, Philippines. The Park is composed of about 10,000 hectares of coral reef and more than 87,000 hectares of surrounding waters. Its total area is 97,030 hectares and contiguous to it is a 10-nautical mile buffer zone covering an area of 356,500 has.

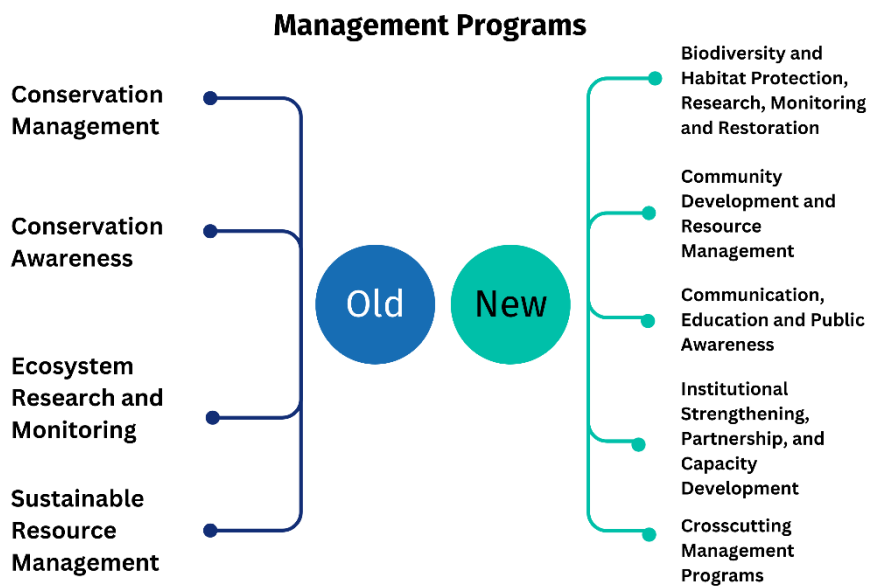
TRNP harbors a diversity of marine life equal to or greater than any such reef of its size in the world. It is home to at least 360 species of corals representing 80 of the 119 coral genera known in the world. Researchers have also documented seven species of seagrass, 66 species of algae, over 700 species of fish, two species of marine turtles, and 14 species of marine mammals. Rays and sharks are common in the reefs with 23 species identified so far (TMO, 2019). Pelagics such as tuna, mackerel, jacks, and barracudas are observed in schools near the reef crests. Tubbataha harbors 181 threatened and near threatened species of marine life. Over 120 birds have been recorded with seven as resident breeders.

The threats to the park are: climate change, erosion of Bird Islet/loss of vulnerable species, inadequate infrastructure, marine debris, adverse effects of tourism, illegal fishing, escalating shipping activities outside park boundaries, and energy exploration.

TRNP envisions to be 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. The mission statement of the Tubbataha Protected Area Management Board (TPAMB) is to conserve its outstanding universal value through responsible stewardship and genuine partnerships.

The Department of Environment and Natural Resources (DENR) developed the first Tubbataha Management Plan in 1991. The Plan served as a blueprint for the administration and operation of the Tubbataha Reefs and has since been updated to respond to current challenges. It was last updated in 2011 through a multi-stakeholder workshop in Puerto Princesa City and reviewed in 2014 using the same approach.

The TRNP Management Plan 2022 - 2031 follows DENR Technical Bulletin No. 2016-08. The main revisions were in the management programs which followed the DENR Technical Bulletin:



The plan also highlights financial requirements for implementation. To fully execute the plan in the next 10 years, TRNP will require PHP822 Million. In the absence of a secure funding source, the TPAMB proposed various sustainable finance solutions which are articulated in the TRNP Financial Plan. The Plan will be reviewed and updated every three years (2025, 2028, and 2031).

# 1. INTRODUCTION

The Tubbataha Reefs Natural Park (TRNP) lies in isolation in the middle of the Sulu Sea, 92 nautical miles southeast of Puerto Princesa City, Palawan, Philippines. Access is therefore only by sea. Its approximate center lies at 8° 57'11.88" N 119° 52' 03.36" E. It is composed of two uninhabited atolls and a reef with reef platforms that are mostly submerged.

The North Atoll, oblong-shaped, 16 kms long and 4.5 kms wide encloses a lagoon of sand and corals with a maximum of 30 meters in depth. The South Atoll is a triangular reef structure about five kms long and three kms wide with a lagoon 21 meters at the deepest section. The atolls are separated by a 5-nautical mile channel.

Jessie Beazley Reef, which lies about 12 nautical miles from the North Atoll, is 45 hectares in size with a small islet made of marl. Tubbataha (the Park) comprises about 10,000 hectares of coral reef and more than 87,000 hectares of surrounding waters. Its total area is 97,030 hectares and contiguous to it is a 10-nautical mile buffer zone covering an area of 356,500 has.

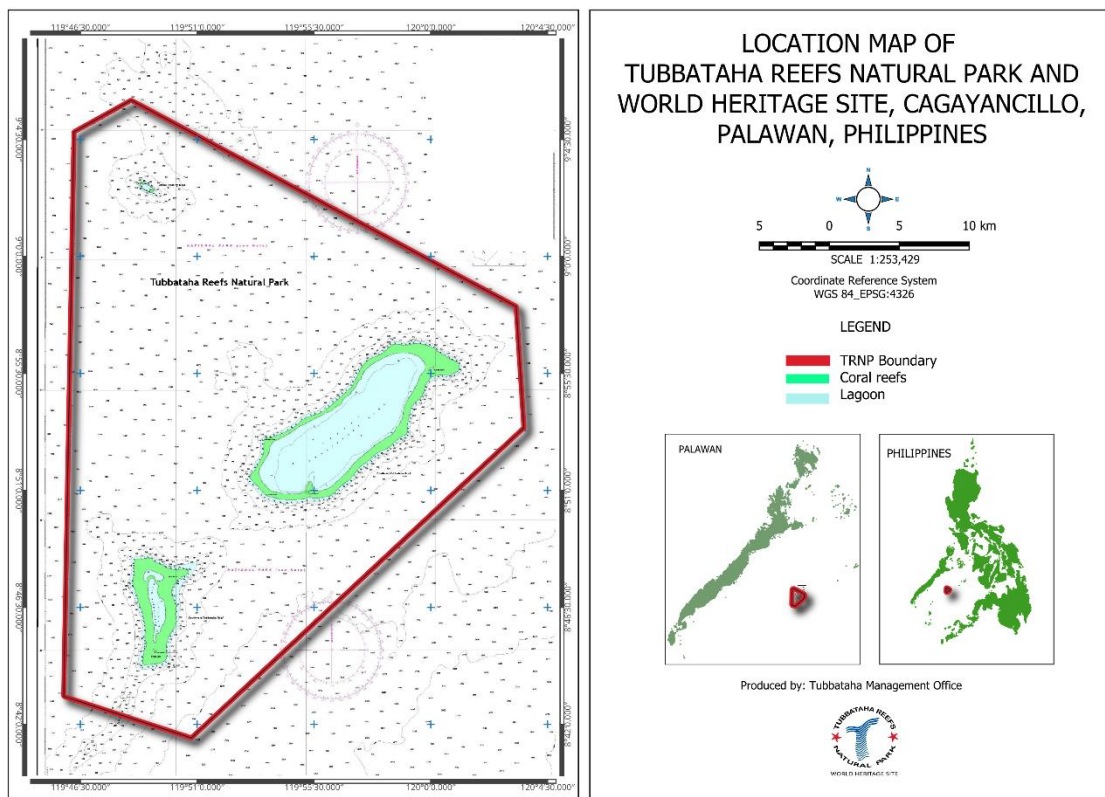


Figure 1. Location map of Tubbataha Reefs Natural Park and World Heritage Site.

Relatively undisturbed for hundreds of years largely due to its remote location and inaccessibility, marine life in these parts thrived to spectacular abundance. It fell victim to fishing overexploitation and abuse in the late 1980s. Conservationists thus sounded the alarm and clamoured for the protection of Tubbataha by pushing for its declaration as a national park.

Presidential Proclamation 306 issued by President Corazon Aquino on August 11, 1988, established the 33,200-hectare no-take Tubbataha Reef National Marine Park (TRNMP). It was expanded to include Jessie Beazley Reef by President Gloria Macapagal-Arroyo on August 23, 2006, through Presidential Proclamation 1126 and renamed it the Tubbataha Reefs Natural Park. In 2010, Republic Act 10067, 'An Act Establishing the Tubbataha Reefs Natural Park in the Province of Palawan as a Protected Area Under the NIPAS Act (R.A. 7586) and the Strategic Environmental Plan (SEP) for Palawan Act (R.A. 7611), Providing for its Management and for Other Purposes' was enacted into law.

Below is a chronology of developments in the management of Tubbataha:

7 September 1987	The Provincial Board of Palawan approves Resolution 244 requesting the national government to declare the Tubbataha Reefs as a marine sanctuary.
11 August 1988	President Corazon C. Aquino issues Presidential Proclamation 306 establishing the Tubbataha Reef National Marine Park (TRNMP) as a no-take protected area and placing it under the management of the Department of Environment and Natural Resources (DENR).
1990	The DENR and Tubbataha Foundation Inc., a non-government organization, enter into a Memorandum of Agreement for the management of the Park. The foundation generates resources and conducts information and education programs to help the DENR in managing the Park.
11 December 1993	TRNMP is inscribed as a UNESCO World Heritage Site, becoming the only purely marine World Heritage Site in Southeast Asia.
20 July 1995	President Fidel V. Ramos issues Memorandum Circular (MC) 128 establishing the Presidential Task Force on the Tubbataha Reef National Marine Park. The body serves as the policy and program coordinating mechanism for TRNMP. It is headed by the Secretary of DENR as Chairman and the Chairman of the Palawan Council for Sustainable Development (PCSD) as Co-Chair. Its members include the Secretaries of the Department of Tourism, and Department of Budget, the Commander of Naval District IV of the Philippine Navy, the Mayor of Cagayancillo, and five NGOs.
7 November 1996	Memorandum Circular 150 is released, amending MC 128 and turning over the Chairmanship of the Presidential Task Force to the Secretary of the Department of National Defense with the DENR and PCSD representatives as Co-Chair.



12 November 1999	Tubbataha is included in Ramsar List of Wetlands of International Importance.
26 November 1999	The Palawan Council for Sustainable Development approves the TRNMP Management Plan, which provides for the establishment of the Tubbataha Protected Area Management Board (TPAMB).
11 August 2001	The Tubbataha Management Office is formally established by the TPAMB.
November 2002	The 9 <sup>th</sup> draft of the Tubbataha Protected Area Bill, a product of various multi-stakeholder consultations, is filed for the first time with the 12 <sup>th</sup> Philippine Congress.
23 August 2006	President Gloria Macapagal-Arroyo issues Presidential Proclamation 1126 expanding TRNMP to include Jessie Beazley Reef and renames the park Tubbataha Reefs Natural Park (TRNP).
26 June 2009	UNESCO World Heritage Commission expands the TRNP World Heritage Site to include the Jessie Beazley Reef.
6 April 2010	RA 10067 also known as TRNP Act of 2009 is enacted. The law provides for the establishment of a 10-nm buffer zone from the Park's boundaries and for more stringent penalties for violations of statutes.
13 November 2010	The Implementing Rules and Regulations of RA 10067 is published. One of the highlights of the IRR was the establishment of the Tubbataha Adjudication Board (TAB).
26 September 2012	The World Futures Council recognizes RA 10067 with a Silver Future Policy Award as an exemplary policy that contributes to the sustainable management of the world's oceans whilst tackling the loss of marine and coastal biodiversity.
17 January 2013	The USS Guardian runs aground in the South Atoll and causes 2345.67 sqm in coral damage.
8 April 2013	Chinese fishing vessel, Min Ping Yu, runs aground in the North Atoll causing 3902 sqm of coral damage.
31 October 2014	The Association of Southeast Asian Nations (ASEAN) inscribes Tubbataha in the list of ASEAN Heritage Parks
May 2015	In May 2015, Tubbataha was recognized as one of three Flyway Network Sites in the Philippines under the East Asian-Australasian Flyway Partnership (EAAFP), launched in 2006 to protect migratory waterbirds and their habitats. This

	recognition augurs well for the conservation of Tubbataha's seabirds.
July 2017	In July 2017, Tubbataha was declared a Particularly Sensitive Sea Area (PSSA) by the International Maritime Organization (IMO), the first in Southeast Asia. This welcome development helps control international maritime activities in the Sulu Sea and limits the accompanying potential threats such activities bring to marine life.
September 2017	TRNP joined the Papahānaumokuākea Marine National Monument in the United States and the Malpelo Fauna and Flora Sanctuary in Colombia as the first ever Platinum Global Ocean Refuge System (now known as the Blue Parks) awardees on 5 September 2017. The three were identified as the most effective large no-take MPAs in the world, chosen by a Scientific Council that will continually review each MPA's continuous adherence to set standards.
2022	Designated as a Hope Spot by the Mission Blue, a US-based NGO headed by Dr. Sylvia Earle.

## Legal Framework and Mandate

The Philippines has international commitments to protect the Tubbataha Reefs Natural Park and World Heritage Site. These are embodied in the following treaties:

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**The Convention on Wetlands (Ramsar Convention) of 1971** aims to stem the loss of wetlands worldwide especially those that are important for migratory waterfowl. It defines wetlands as fresh, brackish, and saltwater marshes, including marine waters up to six meters in depth at low tide and any deeper marine waters contained within the wetland area. The Tubbataha Reefs was inscribed in the Ramsar List of Wetlands of International Importance on November 12, 1999.

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**World Heritage Convention (Convention Concerning the Protection of the World Cultural and Natural Heritage) of 1972** seeks to create international support for the protection and maintenance of sites demonstrating outstanding cultural and natural heritage. All 187 Parties to the World Heritage Convention assume an obligation to identify, protect, conserve, and transmit to future generations their unique cultural and natural heritage. Tubbataha was inscribed in the World Heritage List on December 11, 1993.

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**Convention on Biological Diversity of 1992** seeks the conservation of biological diversity and the sustainable use of its components. It provides for the establishment of protected areas where special measures are to be taken to

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conserve biological diversity and the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings.

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**The UN Conference on Environment and Development (UNCED or the Earth Summit) of 1992** stipulates in Chapter 17 of Agenda 21 (Protection of the Oceans) that partner States shall undertake “measures to maintain biological diversity and productivity of marine species under national jurisdiction...including...establishment and management of protected areas.”

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**The 1994 UN Convention on the Law of the Sea (UNCLOS)** which aims to regulate all marine activities in any area of the sea and “provides legal basis upon which to pursue the protection and sustainable development of the marine environment and its coastal resources”. Signatories to the convention are obligated to conserve and manage the living marine resources under their jurisdiction.

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The Philippine Government has enacted laws that call for the protection of biodiversity and land/seascapes. Those that are relevant to Tubbataha include the:

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**Republic Act 7160 (Local Government Code of 1991)** provides for genuine and meaningful local autonomy of territorial and political subdivisions of the State to enable them to attain their fullest development as self-reliant communities and make them more effective partners in the attainment of national goals. It requires all national agencies and offices to conduct periodic consultations with appropriate LGUs, non-government and people’s organizations, and other concerned sectors of the country before any project or program is implemented in their jurisdiction.

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**Republic Act No. 7611 (Strategic Environmental Plan for Palawan of 1992)** provides the framework for the sustainable development of Palawan compatible with protecting and enhancing natural resources and the endangered environment.

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**Republic Act 9147 (Wildlife Resources Conservation and Protection Act of 2001)** conserves and protects wildlife species and their habitats to promote ecological balance and enhance biological diversity. It also aims to pursue, with due regard to the national interest, the Philippine commitment to international conventions, regulate the collection and trade in wildlife, and initiate or support scientific studies on the conservation of biological diversity. The PCSD is the key implementer of this law as it applies to Palawan.

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**Republic Act 10067 (TRNP Act of 2009)** provides for the protection and conservation of the globally significant economic, biological, socio-cultural,

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educational and scientific value of the Tubbataha Reefs into perpetuity for the enjoyment of the present and future generations.

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[Republic Act 8550 \(The Philippine Fisheries Code of 1998\)](#) as amended by [Republic Act No. 10654 of 2014](#) ensures rational and sustainable development, management, and conservation of the fishery and aquatic resources in Philippine waters including the Exclusive Economic Zone and within adjacent high seas. It guarantees the conservation and protection of the country's fishery and aquatic resources to achieve food security.

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[Republic Act No. 7586 \(National Integrated Protected Areas System Act\)](#) as amended by [Republic Act No. 11038 \(Expanded National Integrated Protected Areas System Act of 2018\)](#) aims to secure for the Filipino people of present and future generations the perpetual existence of all native plants and animals through the establishment of a comprehensive system of integrated protected areas.

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## 2. DESCRIPTION

### 2.1 Bio - Physical Profile

It is thought that atolls are formed when coral communities develop on the slopes and rims of submerged mountains, volcanos, or old islands. Based on Darwin's theory of atoll formation (1836), the sinking of old islands combined with the upward growth of corals as they stretched toward the sunlight form atolls and result in the creation of a lagoon where the islands once were. Tubbataha is such a coral atoll, the only true atoll formation known in the Philippines so far. It sits on a string of extinct volcanoes in the Sulu Sea.

The Park is comprised of the North and South Atolls, and the Jessie Beazley Reef. Both the North and South Atolls enclose an islet with the Bird Islet in the north over twice the size of the 5000-sqm South Islet. Jessie Beazley Reef, with an area of 45 hectares, supports a small emergent islet made of marl.

Both the North and South Atolls have large inner lagoons and sandy areas. The reef systems are composed of continuous reef platforms 200-500 meters wide, completely enclosing sandy and coral substrate lagoons. Portions of the atolls' shallow coralline reef platforms are exposed at extreme low tide. The reef platform deepens at the outer reef flat and reef crests. It ends in steep, often vertical, walls on the seaward side. On the inner side of the platform are shallow reef flats and sea grass beds. Jessie Beazley Reef is characterized by an encircling shallow reef flat about 30-40 meters wide, ending in drop-offs. Its western portion widens and deepens to around seven meters before culminating in vertical walls, undercuts, and ledges.

Tubbataha is exposed to yearly monsoons. The seas are generally rough during the months of July to October with the prevalence of the southwest monsoon. Monsoon breaks, which bring a week or so of calm, usually transpire before monsoonal shifts. Rough seas predominate during the months of November to March brought about by the northeast monsoon. Moderate winds from the northeast between mid-March and June result in calm sea conditions allowing for regular visits to Tubbataha.

The predominantly westward movement of ocean currents in the Sulu Sea is believed to transport fish eggs and larvae to the eastern coast of Palawan (Dolar & Alcala 1993), significantly contributing to the sustainability of fisheries in mainland Palawan. This theory was later substantiated through studies commissioned by Conservation International-Philippines in 2006 and 2007 (Campos et al. 2006) and oceanographic studies commissioned by WWF-Philippines and conducted by Villanoy et al. in 2003. The studies revealed with significant confidence that fish, coral, and decapod larvae from Tubbataha are distributed around the Sulu Sea by ocean currents, solitons, and monsoon winds.

TRNP harbors a diversity of marine life equal to or greater than any such reef of its size in the world. It is home to at least 360 species of corals representing 80 of the 119 coral genera known in the world. Researchers have also documented seven species of seagrass, 66 species of algae, over 700 species of fish, two species of marine turtles, and 14 species of marine mammals. Rays and sharks are common in the reefs with 23 species identified so far (TMO, 2019). Pelagics such as tuna, mackerel, jacks, and barracudas are observed in schools near the reef crests. Tubbataha harbors 181 threatened and near threatened species of marine life.

The islets of the North and South Atolls are breeding and rookery grounds for migratory and resident seabirds, some of which are classified as priorities for conservation. Bird Islet in the North Atoll hosts the largest known population of seabirds in the Philippines. It is the breeding ground of an endemic sub-species of Black Noddy *Anous minutus worcesteri* and an important rookery of the critically endangered Christmas Island Frigatebird. The emergent cay at Jessie Beazley Reef provides feeding seabirds with a dry place to rest during low tide.

The first recorded visit to Tubbataha was made by Dean C. Worcester in June 1911. He described the Bird Islet as a "low, flat, sandy island ... some 400 meters long and 150 meters wide... no vegetation except a few plants of pursley" (Worcester, 1911). Seventy years later, during the visit of ornithologist Robert S. Kennedy, he observed that the islet had shrunk to 268 by 70m. He noted that grass and purslane were the only vegetation on the islet (Kennedy, 1982). Today, the islet is about 212m long and 117m wide, with a total area of about 14,009 sqm based on GPS measurements (Jensen et al., 2021) with grass as the only vegetation.

The invasive ipil-ipil (*Leucena leucocephala*) trees were introduced by fishers in the late 1970s to serve as shade, fuel wood, and as an aid to navigation. However, by 2002, it had begun to occupy the nesting area of the ground breeding seabirds,

hence efforts were undertaken to eradicate the trees. By 2004, the invasive ipil-ipil was eliminated.

## 2.2 Social - Cultural and Economic Profile

TRNP is under the political jurisdiction of the Municipality of Cagayancillo, which lies 60nm northeast. Cagayancillo is the second smallest municipality in Palawan. It comprises of 12 barangays. It is 273kms from Puerto Princesa and 120kms from Anini-y, Antique.

The Municipality has a land area of 2639 has and is composed of 31 islands and islets. The north-eastern part of the islet is characterized by limestone cliffs with a slope of 13-18%.

The northeast monsoon winds predominate during the months of November to March, while the southeasterlies blow from June to October annually. During the summer months of April till June, moderate winds prevail from the north and west.

Cagayancillo has a total population of 6,239 with 49% male and the rest being female. There are 1,108 households, mostly depending on fishing and seaweed farming for livelihood. Residents engage in farming mainly for home consumption and many women weave mats to supplement the family income.

Seaweeds and other marine products are the primary produce of Cagayancillo. These are sold in Puerto Princesa, Iloilo, or Cebu City. Wholesale buyers, who transport products from the Municipality, control the price of commodities. Middlemen control the prices by lending capital or consumer goods to seaweed farmers.

Sea transport is the main method of conveying passengers and cargo to Puerto Princesa and elsewhere. There are no regular scheduled trips except during the summer months, with the schedule of voyages depending on weather conditions. The regular fare for the 12 to 16-hour trip to Iloilo is PhP1,200.00. To Puerto Princesa, which takes 18 to 26 hours depending on sea conditions, the fare in 2019 was PhP1,700. The cost of transporting cargo is also relatively high, for example, a sack of rice costs PhP50 to ferry to Cagayancillo.

Water is a main concern in the municipality. Most of the deep wells produce brackish water used only for cooking and washing. The local government unit (LGU) established a water filtration plant which supplies drinking water to residents.

Cagayancillo has lakes, caves, and pristine beaches. Its scuba diving sites also attract tourists from the Visayas region. The most popular tourism destination of Cagayancillo is the Tubbataha Reefs.

Tourism revenues in Tubbataha contribute to livelihoods in Cagayancillo. Ten percent of these revenues are allocated by the TPAMB to the LGU to support local

livelihood activities. Fish stocks (Campos et al., 2006), carbon storage and climate regulation, larval supply.

### 2.3 Current and Proposed Programs and Projects

In 2013, the plan to replace the current ranger station was hatched after it was determined that damages to the ranger station were structural in nature and beyond economic repair. WWF-Philippines secured private sector support for the initial stages of the project, e.g., structure design, geotechnical survey, project management, etc. The Provincial Government has agreed to undertake the construction project with contributions from TIEZA and the DENR. The new ranger and research station will be constructed some 300 meters from the current station and closer to the channel.

Various agencies and organizations contribute to the management of Tubbataha. In the last 10 years, research support was received from:

- WWF-Philippines for biophysical monitoring starting in 1997
- Marine Research Foundation for marine turtle research since 2010 (four studies)
- University of the Philippines – Marine Science Institute for water quality, cryptobiodiversity study, biological and physiochemical monitoring since 2010
- De La Salle University for reef benthos monitoring since 2012
- Large Marine Vertebrates Research Institute Philippines for elasmobranch research since 2015
- Coastal Conservation Education Foundation, Inc. for fish and benthos monitoring since 1984 (every four years)

WWF-Philippines, a member of TPAMB, implements community development projects in Cagayancillo in the areas of alternative livelihood, adaptive technologies, and marine protected area (MPA) management. Investing in Tubbataha since 1997, it is the longest-standing contributor to its management.

The DENR, co-chair of the TPAMB, has provided financial support since 2015. Other sources of assistance are:

- Pilipinas Shell Foundation, Incorporated provided technical support in 2007 for the crafting of the TRNP Business Plan, and financial support since 2010;
- Antonio O. Floirendo Foundation provided financial and in-kind support since 2016 in the form of the internationally awarded TRNP video, coffee table book, merchandise, funds, and equipment;
- Provincial Government of Palawan contributed financial and technical support since 2004;
- The Philippine Navy and Philippine Coast Guard contributed human resources since 1996 who serve as marine park rangers in Tubbataha.

Tubbataha is part of the Ecologically Critical Areas Network (ECAN) of the Palawan Council for Sustainable Development, which classifies it as a core zone.

## 2.4 Threats, Issues, and Concerns

Table 1. Threats, issues, and concerns ranked according to significance.

1	Climate Change	<p>Temperature extremes caused by climate change resulted in coral bleaching, which affected up to 20% of the hard coral cover of the park in 2020. Hard coral cover continued to decline in 2021, indicating that some sites failed to recover from its impacts.</p> <p>Climate change is also causing more frequent and stronger typhoons that pass through the Sulu Sea. The most recent was Super Typhoon Odette which struck in December 2021. Typhoons contribute to the erosion of Bird Islet due to strong wave action and eventually lead to its disappearance and loss of the already declining seabird population in Tubbataha.</p> <p>The typhoons resulted in coral damage due to breakage caused by strong wave action.</p> <p>Adaptation measures by building reef resilience through vigilant enforcement are being implemented.</p>
2	Erosion of Bird Islet/Loss of vulnerable species (Black Noddy)	<p>Typhoons contributed to the erosion of Bird Islet, the main seabird rookery in Tubbataha.</p> <p>Accelerating erosion was the loss of vegetation, which facilitated the deposition of sand away from the islet as sand is readily carried by the wind or washed away by flowing water.</p> <p>The loss of vegetation was aided by the overabundance of Red-footed boobies, which overfertilized the trees with guano. This was exacerbated by drought over several years so that by 2016, all the trees were gone from the islet.</p> <p>A marked population decline of 40% of the other tree-breeding species, the Black Noddy, was observed between 2016 and 2017 due to the absence of nesting grounds.</p>



3	Inadequate infrastructure	<p>The Tubbataha ranger station was constructed in 2000. Over a decade of battering by winds and waves has caused seawater to seep into the concrete ultimately causing support beams to rust, expand and weaken.</p> <p>In 2013, the TPAMB approved the plan to construct a new ranger station upon the advice experts that the structure of the station is already compromised and repairing it is no longer economically viable.</p> <p>Phase I (foundation) was completed by the Provincial Government of Palawan with funds from TIEZA and materials from DENR in 2020. To date, the funds to complete the station is yet to be secured.</p>
4	Marine Debris	<p>Underwater and surface clean-up is one of the functions of rangers. Marine debris has detrimental effects on marine organisms and on the experience of tourists. Debris collected in Tubbataha comprise of 22% plastics and 68% discarded fishing gears (2016-2021).</p> <p>Clean up efforts show that most of the debris (30% for 2021) is plastic manufactured in other countries such as Malaysia, Indonesia, and Vietnam.</p> <p>Being external in origin and global in scope, effective response to this issue may be beyond the capacity of the TPAMB and the TMO.</p>
5	Adverse effects of tourism	<p>Tourists can touch or break off sections of the reef while diving causing damage and stress or suffocate coral polyps by kicking up sand. These increase the reefs' susceptibility to coral diseases.</p> <p>Studies conducted during the pandemic showed that water quality improved significantly in the absence of dive boats, indicating that the presence of watercraft in the park, despite strict regulations, affects the ecosystem.</p> <p>Tourism also entails high administrative costs related to the maintenance of moorings, increased patrols, implementing tourism systems, and monitoring.</p>
6	Illegal Fishing	<p>Illegal fishing activities drastically decreased since 2011, with only one arrest each year in 2012, 2015, 2017, and 2021.</p>

		<p>However, illegal fishing is a perennial concern as fish productivity dwindles, thereby requiring park authorities maintain enforcement effort, capacity, and investment.</p>
7	Escalating shipping activities around TRNP	<p>Global trends show that international shipping will continue to rise in the coming years. This increases the potential risk to TRNP of ship groundings, oil and chemical spills, and alien invasive species.</p> <p>Two incidents highlight this issue. The minesweeper USS Guardian ran aground in the South Atoll on 17 January damaging 2345.67 sqm of corals and the Chinese fishing vessel, Min Ping Yu, ran aground in the North Atoll on 8 April damaging 3902 sqm of corals. Nine years later, the damaged areas are yet to fully recover from the grounding.</p> <p>The designation of Tubbataha as a PSSA in 2017 and its establishment as an Area to be Avoided (ATBA) significantly lessened. However, there are still a few ships that traverse within the buffer zone of the Park.</p>
8	Energy Exploration	<p>A seismic survey conducted in the Sulu Sea, contiguous to the park, in September 2014 excluded the TRNP buffer zone from the survey area. However, there is no official document that articulates this prohibition.</p>

### 3. MAPS

#### 3.1 Map of Biodiversity

This map shows the various habitat types and their distribution in Tubbataha. The park is composed of 10,000 hectares of coral reefs. Hard and soft corals make up more than 50% of the North and South Atolls and more than 70% of Jessie Beazley Reef (See Figure 2). Seagrass are most abundant around the ranger station and Bird and South Islets. These ecosystems harbor 360 species of corals, over 700 species of

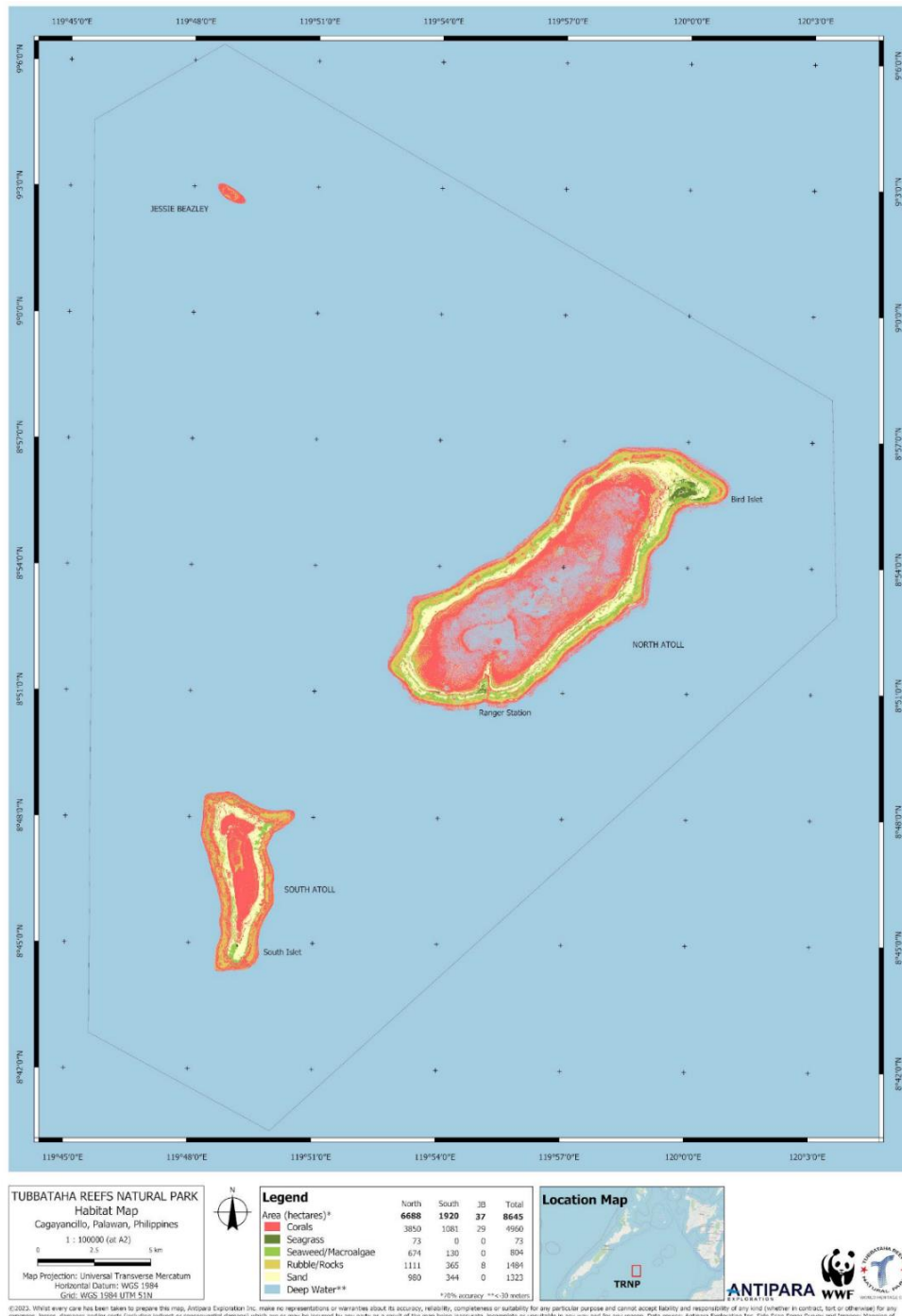


Figure 2. Habitat map of TRNP (Antipara Exploration, 2022).

fish, seven species of seagrass, 66 species of algae, 14 species of marine mammals and two species of marine turtles. Rays and sharks are common in the reefs with 23 species identified so far (TMO, 2019). The park is a refuge for more than 180 threatened and near threatened species of marine life. The Bird and South Islets are breeding and rookery grounds for migratory and resident seabirds. Tubbataha hosts the largest known population of seabirds in the country. It is the breeding ground of an endemic sub-species of Black Noddy *Anous minutus worcesteri* and an important rookery of the critically endangered Christmas Island Frigatebird.

### 3.2 Map on Values

Tubbataha is one of the premier dive sites in the world. Tourism is the main revenue generating activity in the park. Approximately 2,800 divers visit Tubbataha each year, between March to June, when the seas are generally calm.

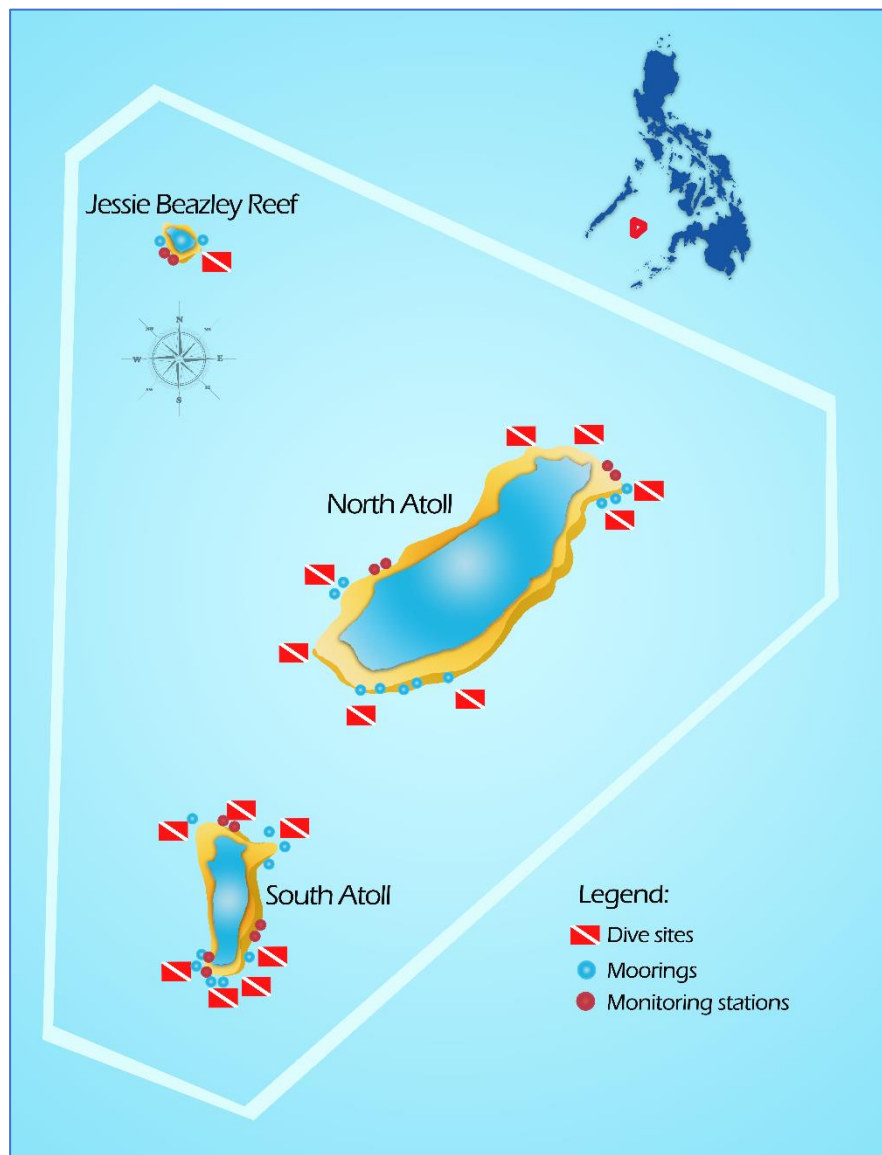


Figure 3. Map of dive sites, moorings for boats, and research and monitoring stations.

The park is considered a sentinel site for offshore reefs. The relatively pristine condition of the park allows scientists and researchers to study the ecology and biology of marine species, ecosystem processes, and other biogeochemical cycles of the marine ecosystem in an undisturbed state. This map shows the locations of dive sites, moorings for boats and the permanent monitoring stations for research.

Around 30% of the circumference of the atolls is being visited by divers. Approximately one (1) to two (2) percent of the coral reef area is being studied for scientific purposes.

Tubbataha provides various ecosystem goods and services, e.g., recreation, science and education, habitat of species, food security and climate regulation. The list of ecosystem services provided by Tubbataha is enumerated in Figure 4.

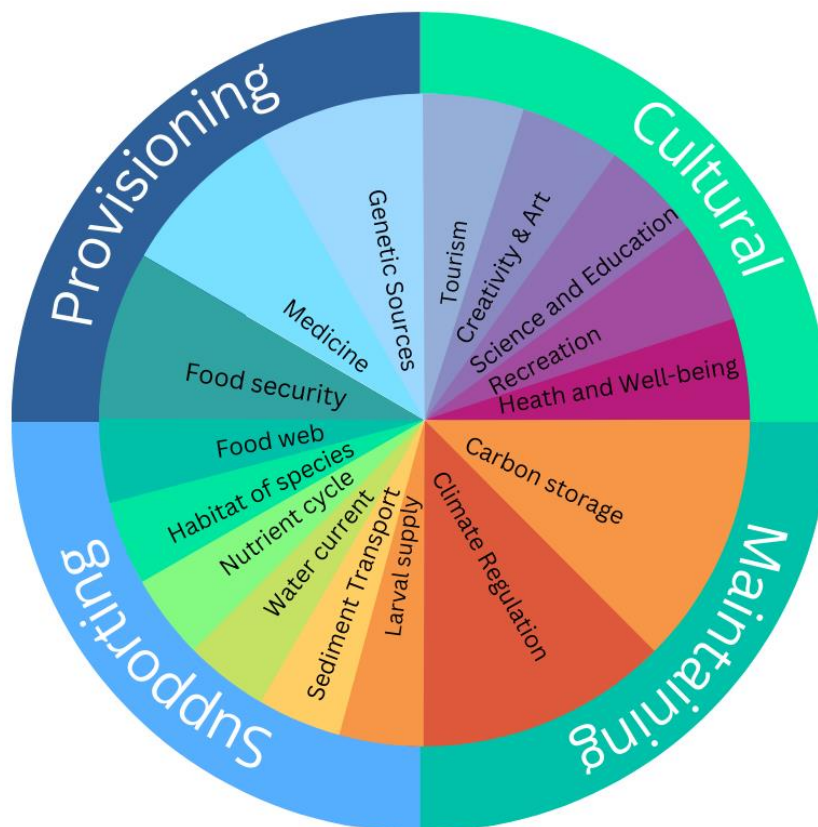


Figure 4. Ecosystem services provided by TRNP.

### 3.3 Map on Threats

The threats to Tubbataha include climate change (erosion and loss of vegetation), illegal fishing and inadequate infrastructure. This map shows the boundaries, in white, of the core zone of Tubbataha, where fishing is not allowed. The Bird and South Islets suffer from erosion and loss of vegetation leading to the decline of vulnerable species (Black Noddy). The ranger station, located at the southernmost part of the North Atoll, is in disrepair and needs to be replaced.

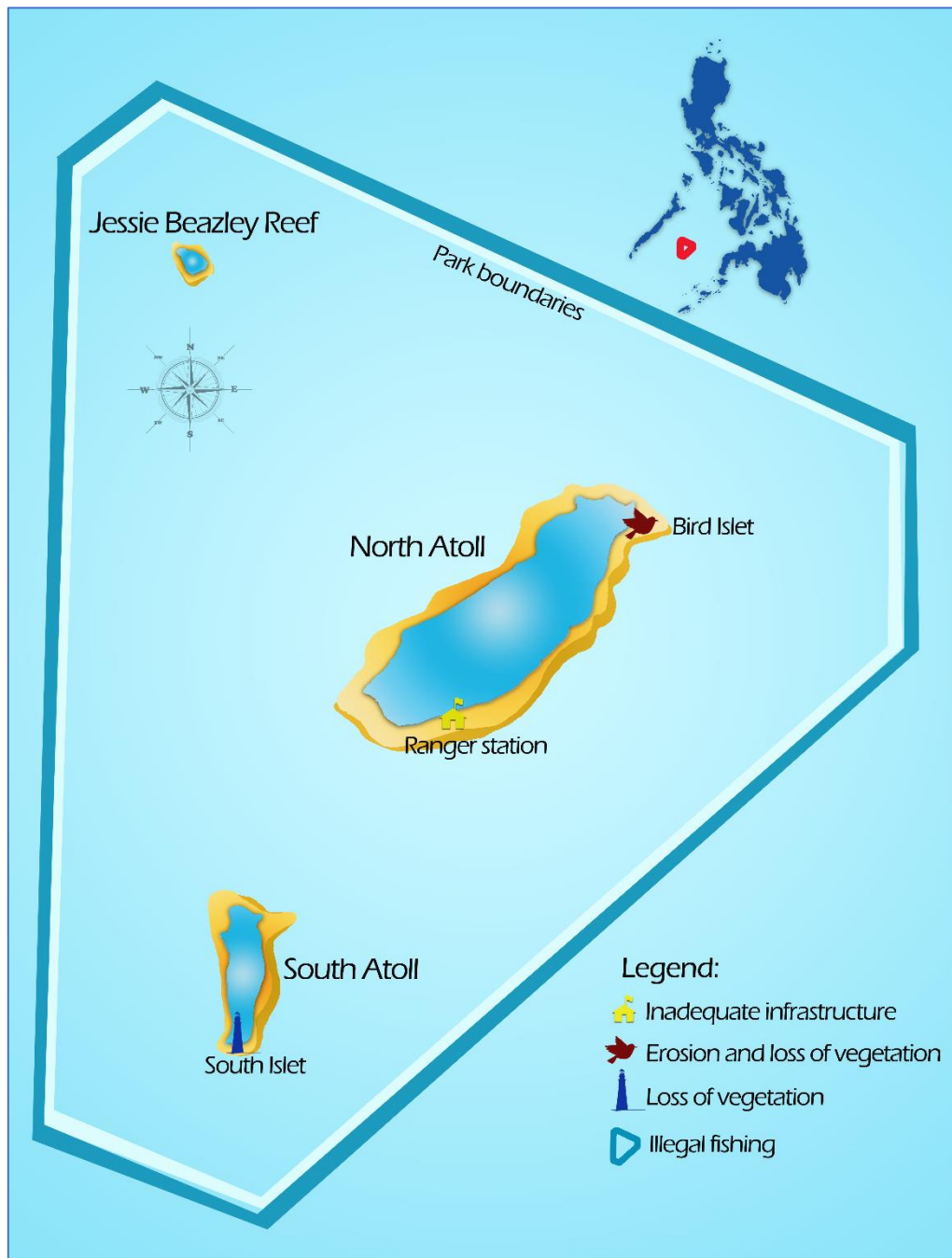


Figure 5. Map of threats and where they occur in the park.

Figure 6 indicates, in blue line, the Area to be Avoided (ATBA) within the designated Particularly Sensitive Sea Area (PSSA). A total of 133 vessels traversed the ATBA in 2021 showing that violations still take place. Marine park rangers radio ship's captains to prevent entry into the PSSA and those who are within are advised to change course and leave the area.

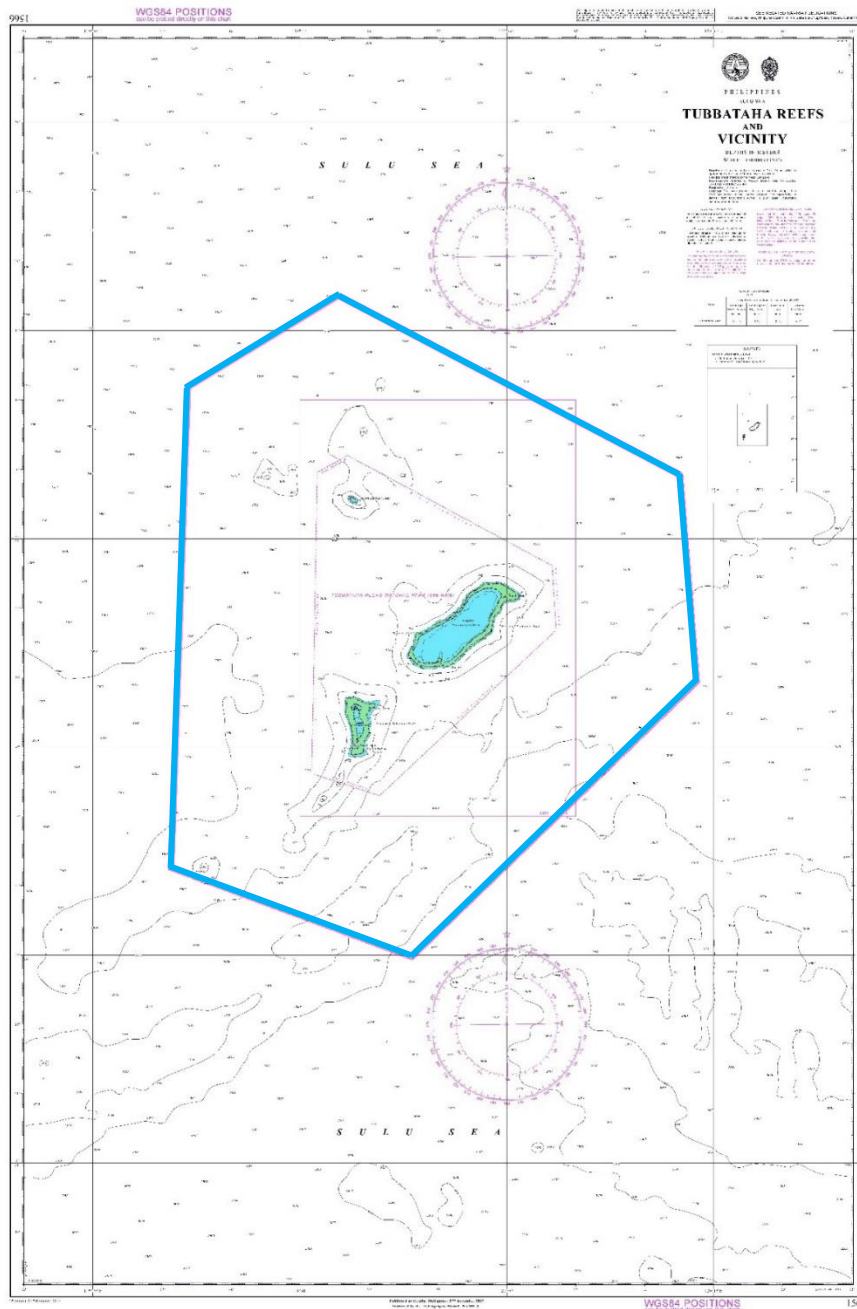


Figure 6. Map of TRNP showing the Tubbatata Particularly Sensitive Sea Area (PSSA) and Area to be Avoided (ATBA) declared by the International Maritime Organization.

## 4. SITUATIONAL ANALYSIS

The Tubbataha Reefs Natural Park and World Heritage Site is the largest marine protected area (MPA) in the Philippines measuring 97,030 hectares. The whole park is managed under a no-take policy pursuant to Section 2 of RA 10067. The only activities allowed in the park are tourism and research.

As the prime scuba diving destination in the country, Tubbataha is valued by various sectors of society. Its status as a World Heritage Site, one of only nine purely marine World Heritage sites, makes it important internationally. Below is the list of stakeholders of Tubbataha.

*Table 2. List of stakeholders, mandates, interests, and level of involvement in Tubbataha. Adopted from Tongson and Cola (2007)*

STAKEHOLDER	MANDATE	INTERESTS	LEVEL
GOVERNMENT			
NATIONAL AGENCIES			
Office of the President	Execute laws through national agencies	Preservation of resources / National and food security	National
Department of National Defense (DND)	Defense and security	Enforcement of existing regulations	National
Department of Environment and Natural Resources (DENR)	Conservation of natural resources	Preservation of resources; Effective park management	National
Department of Tourism (DOT)	Tourism development and promotion	Preservation of tourism products/destinations	National
Department of Budget and Management (DBM)	Allocation of financial resources	Preservation of resources/ Efficient use of financial resources	National
LOCAL GOVERNMENT UNITS			
Palawan Council for Sustainable Development (PCSD)	Implementation of RA 7611	Preservation of resources; jurisdiction under RA 7611	Provincial
Provincial Government of Palawan	Governance	Generation of funds for management of resources and other activities; jurisdiction under RA 7611	Provincial



Municipal Government of Cagayancillo	Governance	Share in park resources, generation of funds for local governance, alternative livelihood	Local
PRIVATE SECTOR			
Diving tour operators	Live-Aboard Dive business	Preservation of resources and safe park access	Local
Corporate foundations	Corporate social responsibility	Preservation of resources	Local
Fisherfolks from Cagayancillo, Palawan, and other provinces	Fishing	Access to park's resources	Local
NGOs			
WWF-Philippines	Biodiversity conservation	Preservation of resources while addressing community concerns in Cagayancillo	Global
SAGUDA-Palawan, Inc.	Biodiversity conservation	Preservation of resources, support management of TRNP	Local
RESEARCH INSTITUTIONS			
UP-Marine Science Institute and UP Cebu, De La Salle University, Palawan State University, Silliman University, Western Philippines University, Large Marine Vertebrates Research Institute, Marine Research Foundation	Research; applied research	Generate knowledge, preservation of resources	National/ Local/ International

Annual ecosystem research shows that the biophysical condition of the park is mostly stable. However, the population of the Black Noddy (*Anous minutus worcesteri*) has declined considerably due to loss of nesting habitat in the islets. As a mitigating measure, the assisted regeneration of trees, construction of temporary nesting structures, and provision of nesting materials are being undertaken by TMO.

Private scuba diving facilities operate in the Park from March to June each year, bringing in revenues from tourist conservation fees and vessel entry fees. Some

revenue is also realized from the sale of Tubbataha merchandise by TPAMB member, Saguda Palawan, Inc.

The number of tourists visiting Tubbataha is increasing. From 1528 visitors in 2012 to 3477 tourists arrived in 2019. The bulk of the visitors in 2019 came from Asia (50%), 27% were from Europe, and the rest are from North and South America, Africa and Oceania. From 2015 to 2019, Asians comprised the majority of divers visiting Tubbataha.

Due to the COVID-19 pandemic, the number of tourists in declined to 139 in 2020 and 30 in 2021.

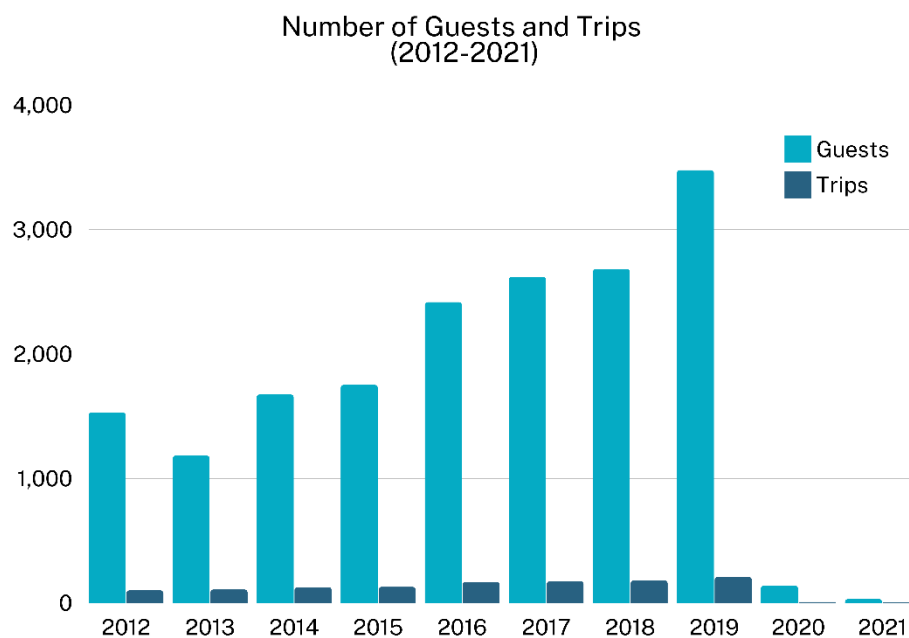


Figure 7. Number of trips and guests from 2012 to 2021.

## 5. VISION, MISSION, GOALS AND OBJECTIVES

### 5.1 Vision

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

### 5.2 Mission Statement

We, the stakeholders of Tubbataha, commit to conserve its outstanding universal value through responsible stewardship and genuine partnerships.

### 5.3 Management Goals and Objectives

Goals	Objectives
To preserve the outstanding universal value of Tubbataha and to manage it in a sustainable basis	By 2031, the five pillars of the outstanding universal value of Tubbataha are maintained and park management is sustained
To protect biological diversity and maintain ecological balance	By 2031, the status of relevant taxa and processes are maintained
	Build resilience to climate change through vigilant enforcement
To provide benefits to communities	Enhance the socio-economic well-being of local communities by maintaining ecosystem services and empowering communities through biodiversity-friendly enterprise and/or capacity building within the next 10 years
To support global conservation goals	Contribute to the Kunming-Montreal Global Biodiversity Framework's 30x30 Target (at least 30% of the planet under effective conservation by 2030)

The Statement of Outstanding Universal Value of TRNP is provided in Appendix 1.

## 6. MANAGEMENT PROGRAMS AND STRATEGIES

### 6.1 Management Zoning

The boundaries of the park extend to three (3) nm outward from the South and North Atolls and the Jessie Beazley Reef. The entire TRNP is managed under a no-take policy. However, tourism and research are allowed to educate, inspire support, and generate revenues. A 10-nm buffer zone, with an area of about 356,500 has, encircles the Park. The lagoons and islets within the park are no-go zones, except for very limited scientific studies that have been allowed by the TPAMB to enhance understanding of their function in the park. Flying unmanned vehicles, e.g., drones are not allowed in Bird and South Islets and in Jessie Beazley Reef. The reef crest and fore reefs are designated as no-wake zones (See Figure 8).

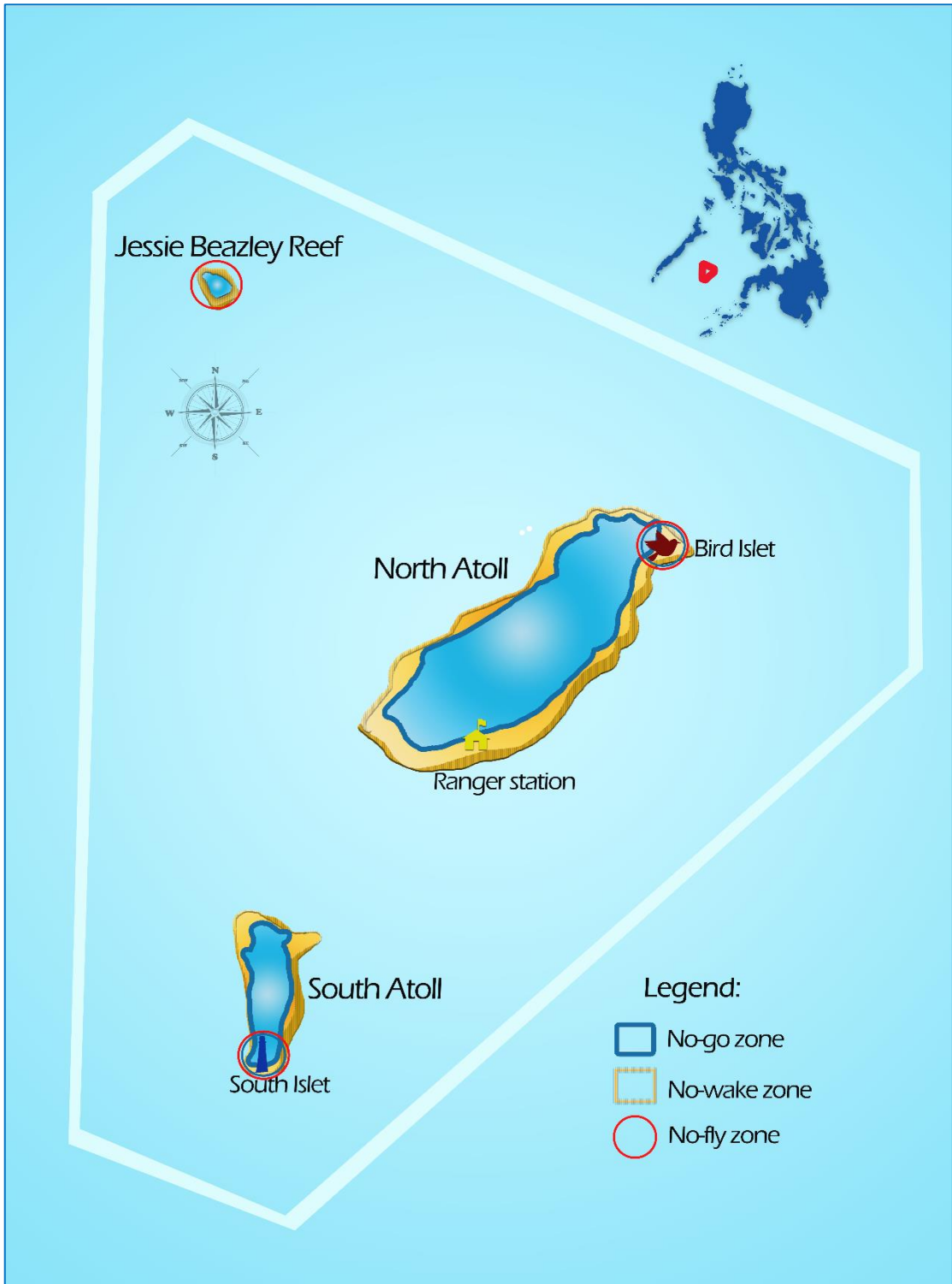


Figure 8. Map of Tubbataha indicating the locations of no-go, zo-fly, and no-wake zones.

## 6.2 Programs and Strategies

Programs	Strategies	Activities
Biodiversity and Habitat Protection, Research, Monitoring and Restoration	Compliance Management	Law enforcement: regular patrols, prosecution and resolution of cases, TAB for admin cases, threats monitoring, waste management, provision of equipment and infrastructure
	Ecosystem Research and Monitoring	Regular monitoring - Fish and reef benthos, seabird, turtle surveys  Targeted research: Marine turtle, vulnerability assessment, carrying capacity study, etc.  Publish research results and produce annual ERM report
	Tourism Management	Permitting system, mooring buoy system, visitor outreach, emergency support
Community Development and Resource Management	Foster sustainable resource use practices	Share technical knowledge on resource management
	Contribute to community-based livelihood projects	Provide 10% share from Park conservation fees annually, support to livelihood projects
Communication, Education, and Public Awareness	Public outreach program	School campaigns, community visits, online learning programs, exhibits, Tubbataha Youth Ambassador program
	Information materials and other products	Development, printing, and distribution of information materials
	Social marketing	Content development and publication: Facebook, Instagram, Website
Institutional Strengthening, Partnership, and Capacity-building	Policy Development	Provision of accurate and timely information to TPAMB for sound decision making (e.g., research results, MEE, etc.), review of General Management Plan, Management Effectiveness Evaluation
	Partnerships	Financial and technical support, social networks

	Capacity Development	Familiarization tour for TPAMB and partners/TMO and trainings for TPAMB/TMO
Crosscutting Management Program	Sustainable financing and gender and development	Conservation fees, grants, corporate and corporate foundation donations, Government support, crowdfunding, collaterals, diaspora funding, endowment fund, operationalization of research station, non-fungible tokens, payment for ecosystem services

### 6.2.1 Biodiversity and Habitat Protection, Research, Monitoring, and Restoration

The reason for managing TRNP is to effectively conserve and protect its marine and terrestrial resources into the future for the benefit of people. This will require that human, financial, informational, and other resources, including expertise, be made available and effectively harnessed to achieve the objectives of conserving Tubbataha.

The Contingency Plan outlines the potential disasters and risk scenarios in Tubbataha and the disaster risk reduction response and measures (see TRNP Contingency Plan 2022).

Three strategies shall be employed under this program.

*1. Compliance Management.* Laws are merely paper threats unless they are enforced. The tool of choice for compliance management shall be information and education, with the tool of last resort being prosecution. Information and education will be used to foster voluntary compliance. However, park authorities will be prepared to employ ‘hard’ compliance tools, e.g., arrests and seizures, prosecution, to communicate that park authorities are prepared and capable of enforcing the law.

Marine park rangers (MPRs) are tasked to implement relevant laws such as PCG Memorandum Circular 10-14 (Pollution by Sewage), TPAMB Administrative Order No. 02-19 (Ban on single-use plastics), TPAMB AO No. 04-20, etc.

Clean-ups and managing waste are also tasks assigned to MPRs. Every two-month tour of duty, MPRs collect solid waste, characterize, and transport them to Puerto Princesa for proper disposition.

Marine park rangers will be provided with safe and comfortable living conditions, through the completion of the new ranger station, to enhance their ability to carry out their duties effectively.

The Tubbataha Adjudication Board (TAB) handles administrative cases. The operation of the TAB is governed by the TAB Rules of Procedure, which is duly approved by the TPAMB.

*2. Ecosystem Research and Monitoring.* The goals of the Research and Monitoring Program are: 1) to determine ecosystem health; 2) generate sound scientific information; 3) provide basis for formulating strategies; and 4) measure biophysical indicators of management effectiveness.

*Regular monitoring activities.* Long-term monitoring is important because the marine environment is complex and susceptible to spatial and temporal change that may take place rapidly or slowly. Information on ecosystem change and the status of Tubbataha may be gleaned from measuring physical and other variables over time. An understanding of the health of the park will serve as a valuable input in formulating science-based policies and decisions.

Regular monitoring activities will be conducted to determine long-term trends in the condition of fish and benthos, seabirds, turtles, and other indicators of management effectiveness. Annual research and monitoring results will be used to assess the condition and trends of the OUV of Tubbataha.

*Targeted research.* Research on specific topics, e.g., carrying capacity, diver impacts, overabundant species, etc., can improve the understanding of the park's condition and threshold for pressure. Targeted research helps generate understanding of cause-and-effect relationships in the ecological or social systems and enrich understanding of monitoring results.

The TMO will stimulate further cooperation in the conduct of targeted research for TRNP. It will engage with external institutions, encourage, and support partnerships, or commission targeted studies to enhance knowledge and facilitate understanding of the resources and processes that affect them. Except for in-house research activities, all externally led studies will be governed by the TRNP research policy and involve park representatives.

*Reports/Papers.* To contribute to the body of knowledge regarding MPAs, scientific results will be published through reports/papers and made available to the public. Monitoring reports will be published annually, while scientific papers will be published at least once in three years.

*3. Tourism Management.* Tourism, aside from research, is the only allowed direct use of the park. The primary goal of tourism in Tubbataha is to support conservation. It does so by providing revenues for management and educational opportunities for researchers, tourists, and the public. Park revenues fund management activities while the educational value of the park lies in generating a public constituency that supports conservation. This may be evidenced by the public concern, through media coverage, messages of support and concern, when TRNP was threatened during the

poaching incident in 2002, the oil spill in the Visayas in 2006, and the vessel groundings in 2013.

Tourism depends on a well-preserved and conserved product. The major indicators that park authorities are doing their job is the absence of anthropogenic pressure and the healthy condition of the reefs. This earns the trust and confidence of the tourism industry and could encourage self-regulation and voluntarily compliance. Much of the success of the park depends on this synergy. The sector supports the conservation fee system because it knows that the funds are well spent. It also contributes to the management of TRNP by engendering understanding and appreciation of the reefs among tourists, contributing to research and monitoring, and reporting illegal use.

Strict adherence to the permitting system, engagement in conservation, management strategies and actions, and enforcing park rules, are some of the ways the sector demonstrates its support. In return, park authorities need to provide infrastructure, such as an efficient mooring and communications system, emergency support, etc., to solidify its partnership with the tourism sector.

### 6.2.2 Community Development and Resource Management

Participation is embedded in the TRNP Act of 2009, which states that: ‘...it shall be the policy of the State to encourage the participation of the private sector and the local government units in the protection, preservation and promotion of the Tubbataha Reefs.’ Section 7 of the Act mandates coordination with the local community and various stakeholders in the formulation of the management plan and, in Section 7 (g), the establishment of mechanisms to ensure consultative and participatory decision-making processes.

‘Community’ here is used to mean groups of people, whether they are stakeholders, interest groups, or citizen groups, in a geographic location (community of place), a community of similar interest (community of practice), or a community of affiliation or identity such as an industry (TPSU, 2020). For now, because they are directly affected by regulations in Tubbataha, ‘community’ will refer to the residents of Cagayancillo.

This program seeks to better engage communities in Cagayancillo to achieve sustainable outcomes. The program is founded on the right of concerned communities to be heard, informed, and consulted. It also builds on the need for mutual trust as a critical element in long-term, sustainable engagement and participation and the effective governance of Tubbataha.

The program aims to contribute to addressing issues affecting the well-being of the communities of Cagayancillo and bringing about environmental and behavioral changes that will help improve conditions in the locality and in Tubbataha.



1. *Foster sustainable resource use practices.* The Park shall assist the LGU of Cagayancillo in conducting studies related to resource use and management. These may be related to seaweed farming and tourism development, among others. Support will also be provided in identifying and accessing support for livelihood activities from government and non-government sources.

In partnership with the LGU, resource management activities will be fostered in the Municipality to conserve biodiversity and maintain marine resource productivity. This is expected to result in enhanced living standards and is envisioned as a disincentive to fishing within TRNP. Similar activities may be initiated in other localities where fishers have impacts on the conservation of TRNP.

2. *Contribute to community-based livelihood projects.* It has been the custom, since 1997 and established through TPAMB Resolution 00-10, to provide the LGU of Cagayancillo with a share in annual Conservation Fee collections from Tubbataha. The purpose of the annual contribution is to provide funding for community-based livelihood projects.

### 6.2.3 Communication, Education, and Public Awareness

This program aims to promote awareness, generate support, foster stewardship, and promote voluntary compliance with regulations. The program will also endeavor to link scientists, decision-makers, and society at large to disseminate scientific information vital to fostering greater appreciation and understanding of the park's values. Stakeholder engagement will focus on inspiring positive attitudes and initiating actions in support of Tubbataha.

1. *Public outreach program.* The task of TMO is to conserve Tubbataha for the benefit of people. Integral to this task is explaining management efforts to various stakeholders and clarifying why they are relevant to their lives and their families. Public outreach aims to inform and educate, encourage discourse, and foster a sense of stewardship for Tubbataha and the marine environment in general.

It may be in the form of face-to-face or online discussions, events, trainings, workshops, exhibits, site visits, etc., with students, local communities, tourists, and other sectors from all perspectives, enabling direct communication and feedback from the public. The Tubbataha Youth Ambassador Program, established through funds from the Pilipinas Shell Foundation in 2015, may be continued to develop new leaders in conservation.

2. *Information materials and other products.* To promote the conservation of Tubbataha and to inspire support, information materials and other products will be developed and distributed. Printed materials, such as brochures, flyers, and leaflets, are cost-effective options that provide longer exposure than online content. Being tangible promotional materials, they can be distributed through multiple channels

during outreach activities, in malls, schools, etc. Other products such as notebooks, shirts, tumblers, pens, etc., will be produced to enhance recognition of the Tubbataha brand and to stimulate a positive image of the park among recipients.

*3. Social marketing.* This communication strategy through social media, with the use of Facebook, Instagram, and the Tubbataha website: [www.tubbatahareefs.org](http://www.tubbatahareefs.org), will inform people across the globe about conservation efforts and developments in Tubbataha.

#### 6.2.4 Institutional Strengthening, Partnership, and Capacity-Building

*1. Policy Development.* RA 10067 mandated the TPAMB to formulate policies for the conservation of Tubbataha. Policies provide park managers and users with limits and a choice of alternatives to guide the decision-making process. The many changes, not only in climate, but in technology, management approaches, and baselines dictate that policies need to be in place, updated, and reviewed to anticipate and respond to emerging challenges and conditions. The TMO shall serve as advisory body in the formulation of policies, providing the Board with accurate the timely information on which to base policy.

The main framework for managing Tubbataha shall be RA 10067 and its Implementing Rules and Regulations, followed by the TRNP General Management Plan, which shall be reviewed every three years. Management effectiveness evaluation, using the prescribed tools, will be carried out once every two years.

*2. Partnerships.* The complexity of managing an offshore reef like Tubbataha is a challenge to collaborating agencies and institutions. Unquestionably, its management is impossible for only one agency to successfully undertake. Management will continue to promote partnerships with government, nongovernment agencies, the private sector, and individuals in the conduct of enforcement, research, information, education, etc.

The TPAMB and TMO will participate and engage with higher government and academic institutions as well as with MPA networks to learn, adapt, seek advice, and share experiences. Through this strategy, the issues that are beyond the control of the TPAMB will be dealt with at a higher level or at a larger scale, e.g., PSSA status.

*3. Capacity Development.* The TPAMB is composed of 21 agencies whose representatives' tenure ends upon change of official status, sometimes due to retirement, transfer, or exit from politics. Because of the constant turnover of the members of the Board, regular capability enhancement activities are necessary. This includes capability development in natural resources management and in the conduct of quasi-judicial proceedings, a statutory function of the TPAMB articulated in RA 10067 Sec 13 (I).

Park staff and partners also require continuous resource management capability enhancement to enable effective response to emerging challenges. These

managers need to be provided with adequate knowledge and skills to navigate the ever-changing contours of MPA management and to stay abreast with global MPA developments.

Providing TMO staff with a secure tenure will make it more attractive to experienced and qualified personnel. Since the establishment of TMO in 2001, personnel were hired on a contractual basis. Aside from affecting morale, this indicates an absence of prospect for a long-term career in the conservation of TRNP.

There is a need to develop a competent and professional corps of marine park rangers that is well-versed in compliance management. MPRs require training in information dissemination, tourism management, conduct of arrests and preparation of documents for prosecution, among others. They should also be able to contribute to research and monitoring because their year-round presence in Tubbataha presents significant opportunity to conduct research.

Trainings will be designed and conducted to respond to the capacity needs of park managers. Park staff will participate in relevant trainings conducted by other agencies.

### 6.2.5 Crosscutting Management Programs

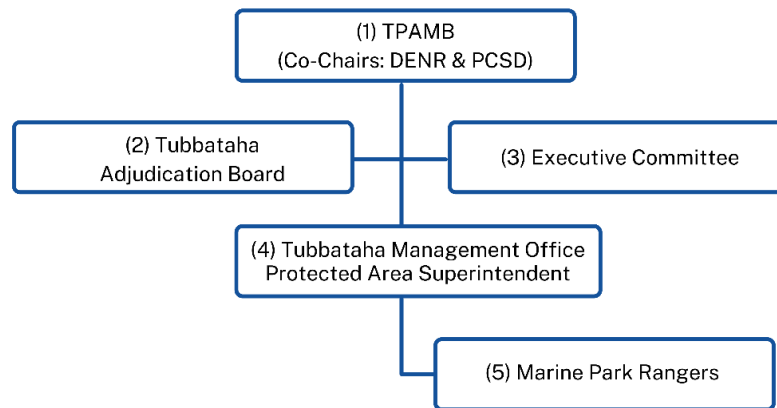
*1. Sustainable financing.* The main source of funds to manage TRNP is revenues from tourism. The COVID-19 pandemic, which started at the start of the tourist season in Tubbataha, demonstrated how volatile the tourism industry is. There is no secured funding source for TRNP in the coming years, hence, park authorities need to explore different sustainable financing mechanisms to implement its management programs, pay staff salaries, and defray operational costs.

*2. Gender and development.* TMO is incorporating gender perspectives and considerations into all aspects of its work, including in various policies, programs, projects, and activities to promote gender equality and address gender-based issues. Park authorities comply with GAD requirements to foster inclusivity and ensure that the needs and rights of all genders, age group, and differently abled people are met.

CEPA activities target children, youth, and women in marginalized communities. Livelihood activities focus on women in Cagayancillo and qualified local community members are prioritized in hiring park management staff. Facilities for mothers and women are provided. Capacity building activities are offered to stakeholders.

## 7. HUMAN RESOURCES AND INSTITUTIONAL ARRANGEMENTS

### 7.1 Park Management and Administration Structure



#### 7.1.1 Tubbataha Protected Area Management Board (TPAMB)

The Park is under the management of the TPAMB, which was created pursuant to Section 10 of RA 10067. It is composed of the following members:

1. Chairman, PCSD, Co-Chairperson
2. Regional Executive Director, Region IV-B, DENR, Co-Chairperson
3. House of Representative, 1st District of Palawan, Member
4. House of Representative, 2<sup>nd</sup> District of Palawan, Member
5. House of Representative, 3rd District of Palawan, Member
6. Office of the Governor, Palawan, Member
7. Mayor, Cagayancillo, Member
8. Chair, Environment and Natural Resources Committee, Cagayancillo SB, Member
9. Provincial Board Chairman, Committee on Environment & Natural Resources, Member
10. Provincial Board Chairman, Committee on Appropriations, Member
11. Commander, Western Command, Member
12. Commander, Naval Forces West, Member
13. District Commander, CGD-Pal, Member
14. Executive Director, Philippine Commission on Sport Scuba Diving, Member
15. Provincial Officer, BFAR, Member
16. President, Palawan State University, Member
17. President, Western Philippines University, Member
18. President, WWF-Philippines (NGO), Member
19. Executive Director, Conservation International (NGO), Member
20. Chairperson, Saguda Palawan Inc (NGO), Member

21. Tambuli ta mga Kagayanen (People's organization), Member

Section 13 of RA 10067 details the powers and functions of the TPAMB as follows:

- (a) Decide matters relating to planning, resource use and protection, and general administration of the area in accordance with the management plan;
- (b) Approve budget allocations, proposals, work plans, action plans, guidelines for management of the TRNP in accordance with the management plan and its policies;
- (c) Establish productive partnership, with national and local agencies, local government units, local communities, the academe, nongovernmental organizations, and such other institutions to ensure the conservation and management of the TRNP; coordinate and implement;
- (d) Initiate the implementation of the delineation of the boundaries of the TRNP;
- (e) Promulgate rules and regulations and impose penalties for violations thereof;
- (f) Ensure the implementation and enforcement of laws, rules and regulations, policies, programs and projects within the TRNP;
- (g) Control and regulate construction, operation and maintenance of structure and utilities within the TRNP;
- (h) Monitor and evaluate the performance of the TMO and all those implementing activities and projects in the TRNP;
- (i) Appoint the TRNP PASu, and, upon recommendation of the PASu, appoint management personnel based on internal selection criteria and decide on their compensation and benefits;
- (j) Generate funds and accept donations, grants; appropriate and disburse the same, and exercise accountability over all funds that may accrue to the TRNP;
- (k) Manage the TRNP Trust Fund, as herein provided;
- (l) Exercise quasi-judicial functions for adjudicating cases of violations of this Act and impose penalties for violations of guidelines, rules and regulations within the TRNP;
- (m) Deputize individuals for the enforcement of laws, rules and regulations governing conduct within the TRNP, and prescribe the necessary qualifications therefore;
- (n) Retain legal counsel to defend cases against the TPAMB and the Office of the PASu whenever they are sued in connection with the performance of their duties under this Act, guidelines, and rules and regulations pertaining to the TRNP;
- (o) Provide adequate measures to ensure consultation and participation of stakeholders;

- (p) Possess authority to issue permits and conditions thereto, and determine and collect fees, for the utilization and enjoyment of the TRNP and the resources therein: Provided, That the TPAMB may delegate to the PASu the authority to issue permits and collect fees for temporary access to the TRNP such as, visiting or diving, subject to the limits as may be determined by the TPAMB: Provided, however, That entry into the TRNP for emergency reasons shall not be subject to permit and users' fees;
- (q) Determine, based on existing scientific evidence, laws, rules and regulations, international instruments, traditional resource utilization, management modalities in the area, carrying capacity, and observing precautionary principle, the modes of utilization of the TRNP and all the resources found therein. Permits shall only be issued for such modes of utilization and enjoyment as the TPAMB and this Act shall allow; and
- (r) Perform such other functions necessary for the fulfillment of the provisions of this Act and other applicable laws, rules and regulations, and as may be required.

### 7.1.2 Executive Committee (ExeCom)

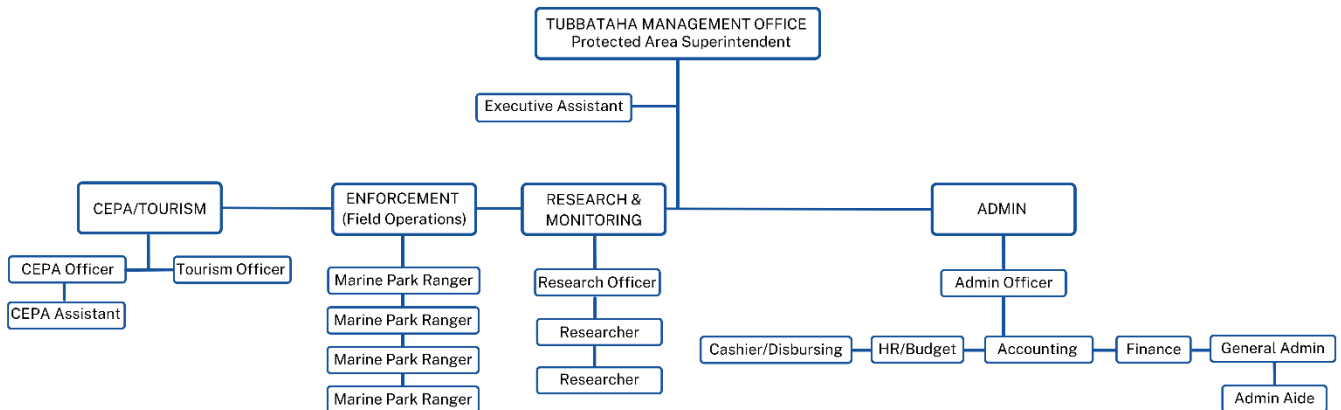
Section 11 of RA 10067 established the Executive and other committees of the TPAMB. It states that: 'There shall be an Executive Committee (ExeCom) to which the TPAMB may delegate some of its powers and functions. Its members shall be chosen by the TPAMB from among themselves.' The Executive Committee meets monthly and addresses operational and administrative issues and performs other tasks assigned by the TPAMB en banc. The Executive Committee is composed of the following members:

1. Chairman, PCSD, Co-Chairperson
2. Regional Executive Director, Region IV-B, DENR, Co-Chairperson
3. Office of the Governor, Palawan, Member
4. Mayor, Cagayancillo, Member
5. Commander, Western Command, Member
6. Commander, Naval Forces West, Member
7. District Commander, CGD-Pal, Member
8. President, WWF-Philippines, Member (NGO)
9. Chairperson, Saguda Palawan, Member (NGO)

### 7.1.3 Tubbataha Adjudication Board (TAB)

The TAB was created in 2010 to operationalize Section 13 (I) of RA 10067, which mandates the TPAMB to 'exercise quasi-judicial functions for adjudicating cases of violations of this Act'. The TAB Rules of Procedure governs the operation of the TAB.

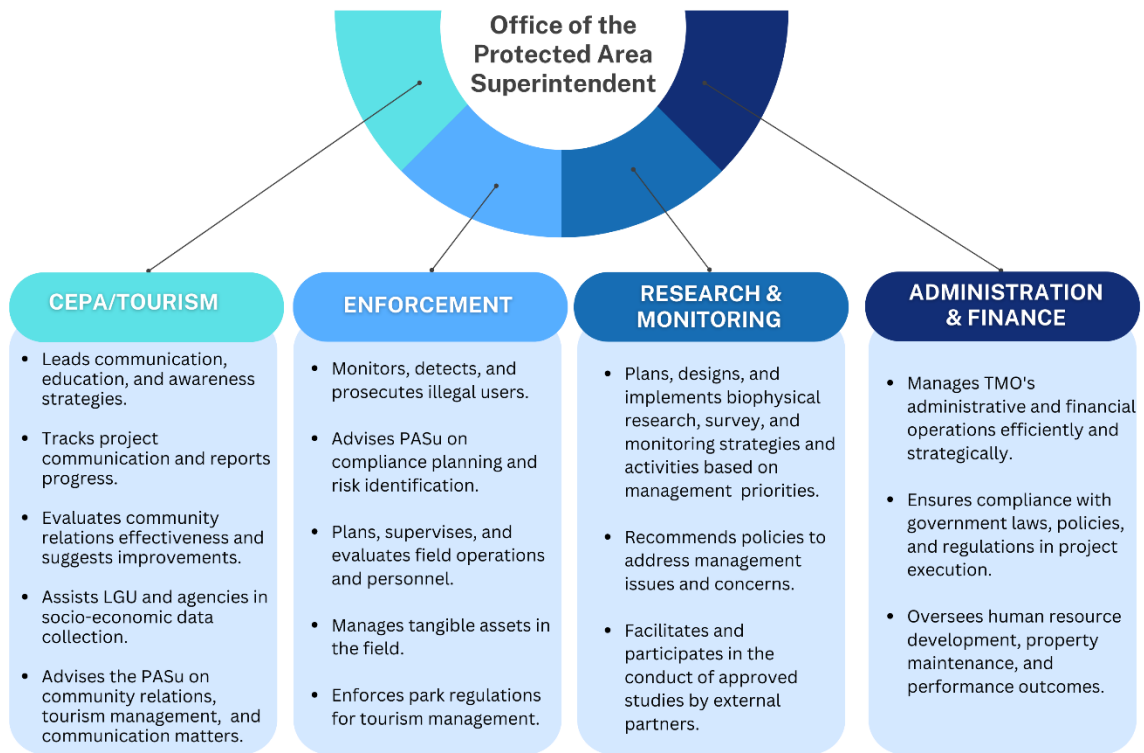
### 7.1.4 Tubbataha Management Office (TMO)



Sec 14 of RA 10067 established the TMO to be headed by the Protected Area Superintendent (PASu). Although RA 10067 did not enumerate the functions of TMO, it detailed the functions of the PASu, and by extension of the Office itself, as follows:

- (a) Prepare the management plan and its successor plans as herein provided;
- (b) Serve as Secretary to the TPAMB with the duty to provide the TPAMB with all the information necessary to make appropriate decisions for the implementation of this Act;
- (c) Hire non-management personnel of the TRNP, and recommend management personnel to the TPAMB;
- (d) Supervise the TRNP personnel in the performance of their duties and functions;
- (e) Coordinate and implement with national and local agencies, local government units, local communities, the academe, nongovernmental organizations, and such other institutions to ensure the conservation and management of the TRNP;
- (f) Develop and implement park information, interpretation, education and other visitor programs;
- (g) Enforce the laws, rules and regulations and the TPAMB resolutions relevant to the TRNP, file complaints and assist in the prosecution of offenses;
- (h) Monitor all activities within the TRNP in conformity with the management plan;
- (i) Ensure that consultative and participatory mechanisms are maximized in decision-making; and

(j) Perform such other functions as the TPAMB may assign.



### 7.1.5 Tubbataha Marine Park Rangers

A ranger station for field personnel is located in the southern end of the North Atoll. It houses a composite team of marine park rangers from different agencies. Since 1996, the Philippine Navy has been sending personnel to Tubbataha to complete a composite team made up of government personnel and civilians. The Philippine Coast Guard assigned personnel to Tubbataha in 2000. The Municipality of Cagayancillo became actively involved in enforcement in 2008 through a Memorandum of Agreement with TMO on the assignment of auxiliary rangers from the pool of Bantay Dagat of the Municipality.

In 2010, when RA 10067 was enacted, these manpower arrangements were already customary practice set in place by the TPAMB. It was formalized and strengthened through Section 35 of RA 10067, which authorizes and instructs relevant government agencies, including LGUs, to cooperate in the enforcement of the Act. Section 41 also mandates the active involvement of the Philippine Navy and the Philippine Coast Guard in law enforcement.

At least two personnel, each from the Philippine Navy, the Philippine Coast Guard, and the Municipality of Cagayancillo, are seconded to TMO for the two-month tour of duty in Tubbataha.



## 7.1.6 TMO Management Framework

Tubbataha Reefs Natural Park (TRNP) Management Framework	
Responsibility	1: Framework of International Standards
Philippine Government	<ul style="list-style-type: none"> <li>1.1 The Convention on Wetlands (Ramsar Convention) of 1971</li> <li>1.2 World Heritage Convention (Convention Concerning the Protection of the World Cultural and Natural Heritage) of 1992</li> <li>1.3 Convention on Biological Diversity of 1992</li> <li>1.4 The UN Conference on Environment and Development (UNCED or the Earth Summit) of 1992</li> <li>1.5 The 1994 UN Convention on the Law of the Sea (UNCLOS)</li> </ul>
Responsibility	2: Legal Framework
Tubbataha Protected Area Management Board (TPAMB)	<ul style="list-style-type: none"> <li>2.1 Republic Act 10067 (TRNP Act of 2009)</li> <li>2.2 Administrative Order No. 1 Series 2017</li> </ul>
Responsibility	3: Strategic Framework
TPAMB	<p>Benchmarked against the DENR-BMB Tech Bul 2016-08</p> <p><b>3.1 TRNP WHS Protected Area Management Plan 2022 - 2032</b></p> <p><i>These plans are for a rolling 3-year period and support the management of specific priorities and activities identified in the Primary Plan (3.1)</i></p> <ul style="list-style-type: none"> <li>3.2 TRNP Information, Education &amp; Communication Plan</li> <li>3.3 TRNP Comprehensive Tourism Management Plan</li> <li>3.4 TRNP Contingency Plan</li> <li>3.5 TRNP Compliance Management Plan</li> <li>3.6 TRNP Research &amp; Monitoring Strategic Plan</li> <li>3.7 TRNP Buffer Zone Management Plan</li> <li>3.8 TRNP Financial Plan</li> </ul>
Responsibility	4: Operational Management Framework
Tubbataha Management Office (TMO)	<p><b>4.1 TMO Annual Operating Plan</b></p> <p><i>Includes agreed annual deliverables (as reviewed annually) from the Strategic Framework Plans</i></p> <ul style="list-style-type: none"> <li>4.2 TMO Training and Development Plan</li> <li>4.3 TMO Strategic Asset Management Plan</li> <li>4.4 TMO Administrative Operating Manual</li> <li>4.5 TMO Field Operations Manual</li> </ul> <p><i>All TMO practices as outlined in manuals, plans procedures, guidelines etc. will support compliance with government requirements</i></p>

## 8. LOGICAL FRAMEWORK

Goals	Indicators	Means of verification	External assumption
Long term goal			
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.	Outstanding Universal Value (OUV)	OUV Assessment Report	
Short term goals			
To protect biological diversity and maintain ecological balance	By 2031, high compliance to regulation is maintained	No. of cases filed, Tourism Report, MPR Daily Accomplishment Report	Support of other agencies in enforcement is constant; Dive operators exercise self-regulation; Good weather condition for patrols
	By 2031, the status of relevant taxa and processes are maintained, and necessary research conducted (e.g., carrying capacity)	ERM and other Technical Reports	No major climate-related issues (e.g., coral bleaching, typhoons, and Crown-of-thorns infestation, etc.); Expertise and funds are available
	By 2031, promote voluntary compliance among users	Tourism report, TAB cases	Tourism operations have resumed
	Generate support to Tubbataha	Technical support, amount of financial support, number of sources of support	Favorable financial climate

	<p>By 2031, policies formulated and implemented</p> <p>Maintain existing partnership and develop new ones</p> <p>Enhanced capability of TPAMB and park staff to manage the park and in DRRM</p> <p>Secure institutional standing of TMO</p> <p>Adequate infrastructure and equipment provided and maintained</p>	<p>Resolutions, Reports</p> <p>Memorandum of Understanding</p> <p>Trainings, Reports, DRRM equipment</p> <p>TMO Plantilla positions</p> <p>New ranger station constructed and operational; Mooring buoys maintained; Equipment provided (e.g., patrol boat)</p>	<p>TPAMB members are available; There issues that need to be resolved</p> <p>Favorable financial climate; Willingness to support Tubbataha</p> <p>Funds and technical support are available</p> <p>National Government approval</p> <p>Funds secured</p>
	Resource mobilization enhanced	Resource Mobilization Plan implemented, and funds raised	Willingness of individuals and companies to support conservation
	Continue implementation of policies on waste management (e.g., marine debris and sewage)	Reports	Support of other agencies and self-regulation of dive operators
To provide benefits to communities	By 2031, provide technical and other support for Cagayancillo conservation and livelihood efforts (e.g., biodiversity-friendly enterprise)	Receipt of 10% share in tourism revenues, Reports	There are tourism revenues

Management Focus	Indicators	Means of verifications	External Assumption
Biodiversity and Habitat Protection, Research, Monitoring and Restoration			
Compliance Management	<p>Regular patrols conducted</p> <p>Proper conduct and documentation of arrest and seizures</p> <p>All criminal and administrative cases prosper and pursued</p> <p>Waste management: -Implementation of MC 10-14 (Pollution by Sewage)</p> <p>-Implementation of AO No. 02-19 (single-use plastic)</p> <p>-Clean-ups and characterization of waste</p>	<p>MPR Daily Accomplishment Report</p> <p>Reports, receipts, and MPR sworn statements</p> <p>Criminal/administrative complaints</p> <p>PCG-MEPU report</p> <p>Incident reports</p> <p>MPR Daily Accomplishment Report</p>	<p>Weather condition is favorable, and equipment and infrastructure are available</p> <p>There are illegal activities</p> <p>Availability of witnesses Availability of TAB members for hearings</p> <p>Availability of PCG-MEPU to conduct inspection</p> <p>MPRs are capable of inspecting vessels and dive operators comply with AO</p> <p>Weather conditions are favorable</p>
Ecosystem Research and Monitoring	<p>Biophysical monitoring of indicator species conducted</p> <p>Targeted research conducted with partners (e.g., vulnerability assessment)</p>	<p>ERM Report</p> <p>Technical Reports</p>	<p>Availability of watercraft and funds</p> <p>Availability of technical support and funds</p>

	ERM report produced and results presented in TPAMB and ExeCom meetings	ERM Report; TPAMB and ExeCom minutes	Meetings held
	Publication of research results	Presentations, posters, papers	Acceptance of submitted paper
Tourism Management	At least 90% compliance to tourism regulation achieved	Tourism Report, TAB resolutions, Dive Operators' meeting reports	Tourism sector is cooperative
	All 26 moorings maintained	Tourism Report, Mooring Maintenance Report	No major damage to moorings occur
	At least 1 tourism exhibit/conference attended	Activity report, collaterals	Exhibits/conferences scheduled
Community Development and Resource Management			
Foster sustainable resource use practices	Assistance provided (planning and training)	Request for support from LGU; Reports	Availability of funds and opportunities for partnership
	LGU Bantay Dagat trained as TRNP MPR	Letter, MPR Training	Availability of LGU Bantay Dagat to be deployed in TRNP
Contribute to community-based livelihood projects	Provide 10% share from conservation fees annually	ExeCom Resolution	Cagayancillo LGU fund utilization report and project proposal submitted
	Provide support to livelihood projects	Request for support from LGU; Reports	Availability of funds and opportunities for partnership
Communication, Education and Public Awareness			

Public outreach program	At least 4 outreach activities conducted per year and 5 TYAs engaged	Documentation; IEC Report	Availability of funds
Information materials and other products	At least 1,500 pieces collateral produced and distributed per year	IEC Report, logbook, sample	Availability of funds
Social Marketing	At least 120 social media posts per year	Social media posts, IEC report	Availability of internet connection
Institutional Strengthening, Partnership, and Capacity-building			
Policy Development	At least 15 TPAMB/ExeCom resolutions formulated per year  Management Plan reviewed and updated every three years  Management Effectiveness Evaluation conducted every 3 years	TPAMB/ExeCom resolutions  Updated General Management Plan, activity report  MEE Report	There are issues that need to be resolved  Availability of funds and participants  Availability of funds and participants
Partnerships	At least 5 partnerships maintained	MOA, Letter of Request, Reports	Partners are willing to collaborate
Capacity development	At least 1 familiarization tour per year to TRNP for TPAMB members  At least 75% of park staff participate in trainings	Documentation  Training reports, Certificate of Attendance	TPAMB members are available  Relevant trainings available

	At least 1 training organized by TMO per year	Activity document, documentation	Availability of participants and resource persons
Crosscutting Management Programs			
Sustainable financing	At least PhP2M in-kind and cash mobilized from external sources per year  Continued collection of conservation fees	Reports to TPAMB, Contracts, MOA  Tourism report, financial report	TMO is able to find donors  Tourism operations have resumed

## 9. FINANCIAL PLAN

### 9.1 Introduction

Financing biodiversity is a shared responsibility of governments, the private sector, civil society organizations, and the populace. Efficient and transparent financial resource use is necessary to foster a supportive community.

This document serves as an overview of the TRNP Financial Plan, which comprehensively discusses the past achievements, current challenges, and future financial strategies to ensure the long-term goal of conserving the outstanding universal value of Tubbataha. This will be regularly evaluated for effectiveness and adapt evolving strategies as needed.

There are two main sections in this document. The first section, the Biodiversity Expenditure Review, examines the financial investments made by the government and private sectors in the last five years (2017-2022). The second section, the Financial Needs Assessment for 2023-2032, estimates the required financial resources to effectively manage and conserve the TRNP for the next 10 years.

## 9.2 The Biodiversity Expenditure Review, 2017-2022

### 9.2.1 Management Cost, 2017-2022

In the past fiscal years, 2017–2022, a total of PhP162 million or an annual average of PhP27M was allotted towards the conservation of Tubbataha. The fund was distributed as follows (Figure 9):

**Personnel cost:** PhP37 million, or 23%, was allocated for staff salaries.

**Management and Operational Expenses:** Administrative costs totaled PHP7 million, representing 4% of the total expenditure.

**Programs:** PhP118 million, representing 73% of the budget, was earmarked for various conservation programs to fulfill the TMO mandate.

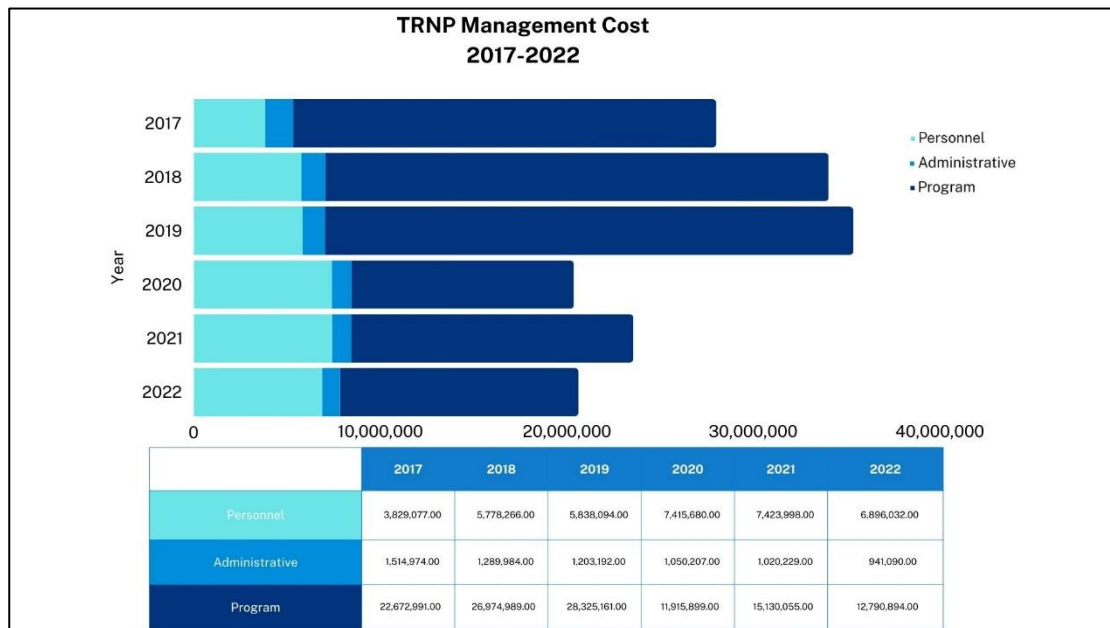


Figure 9. Fiscal data reflecting the amount spent on managing Tubbataha over the last five (5) years.

### 9.2.2 Financial Support from Key Sectors

The Tubbataha law highlights the need for private and government involvement in protecting, conserving, and promoting the Tubbataha Reefs. The financial records from the past five years (2017–2022) indicate significant support received from these sectors (Figure 2).

Tourism revenues generated PhP55 million, which is 34% of the total management cost, showing the significant contribution of tourism to funding. The private sector contributed PhP67 million in the form of project grants, or 41% of the overall cost. Meanwhile, government agencies provided in-kind contributions of 25%, or PhP40 million, of the total budget spent during the period.



From 2017 to 2019, Digichive, the exclusive advertising concessionaire of the Ninoy Aquino International Airport Terminals, sponsored the cost of the Tubbataha billboard display with an estimated cost of Php9.3 million per year. However, their contributions stopped due to the global COVID-19 pandemic, contributing to a significant drop in the private sector’s support from 2020 onwards.

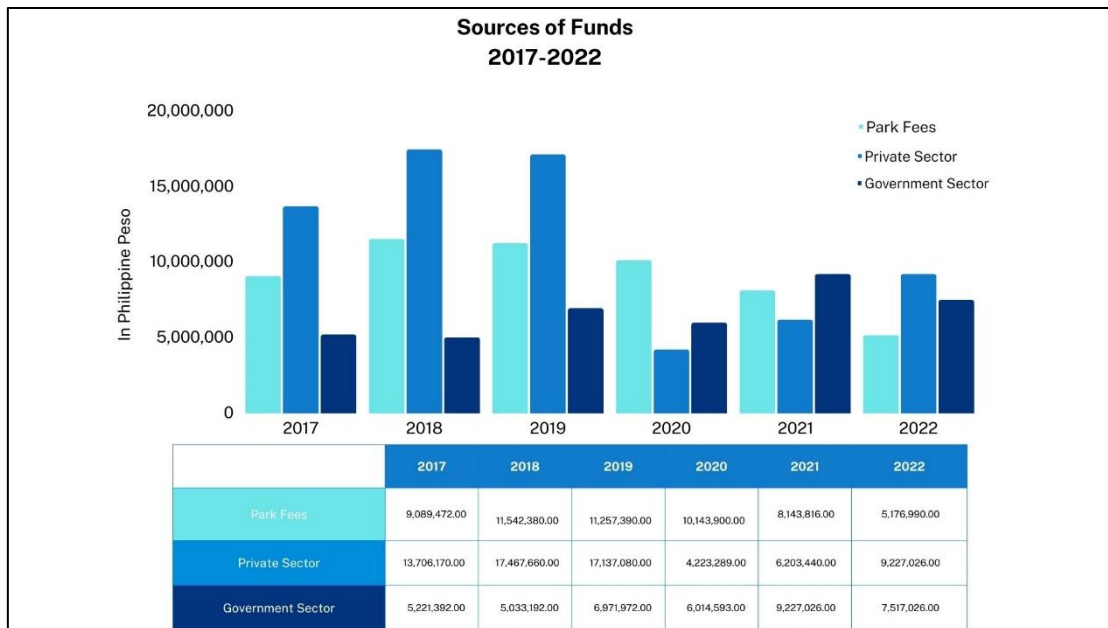


Figure 10. Five-year funding sources for Tubbataha operations

### 9.2.3 Tourism Revenue, 2017-2022

Tourism revenues for the park have been consistently increasing since 2013, reaching a peak in 2019 (Figure 11 and Table 3). However, the outbreak of the global COVID-19 pandemic in 2020 caused significant disruptions in park fee collections. Travel restrictions led to a sharp decline in revenue, severely impacting tourism. Although tourism revenue began to recover in 2022, it remained below pre-pandemic levels.

The tourism revenue can cover 61% of the park's management expenses. However, the TPAMB emphasizes the importance of partnering with other sectors to jointly fund operations, which results in modest savings over time. This strategy proved invaluable during the pandemic, as savings from previous years helped offset the decrease in tourism revenue. The park was able to operate without interruption.

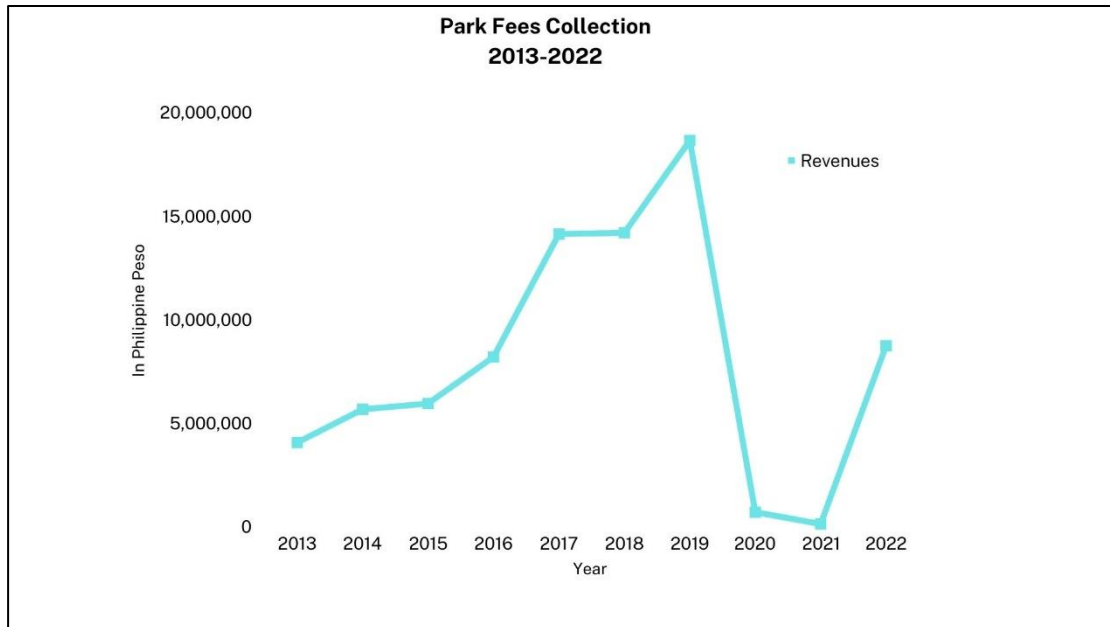


Figure 11. In 2019, tourism revenue reached its peak and plunged dramatically during the pandemic.

Table 3. The 10-year TRNP revenue from tourism.

Tourism Data	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
No. of visitors	1,182	1,673	1,750	2,415	2,618	2,680	3,477	39	30	1,688	17,652
No. of trips	108	127	129	169	174	180	210	8	4	111	1,220
Revenue	4,106,250	5,713,250	5,993,200	8,243,750	14,182,500	14,242,000	18,699,250	740,500	171,250	8,785,050	80,877,000

## 9.3 Financial Needs Assessment, 2023-2023

### 9.3.1 Projected Park Fees

Tourism revenue grew by an average of 14.97% annually between 2013 and 2022. Assuming no major external factors, such as the pandemic, the revenue is expected to continue growing at this rate. This projection indicates that tourism revenue will reach PhP205 million over the next decade (Figure 12). This forecast does not consider any potential increase in the rates of tourism fees within the specified timeframe.

A study is currently underway to determine the maximum number of visitors that Tubbataha can accommodate without damaging its ecosystem. This carrying capacity study may have an impact on the projected tourism revenue for the next decade.

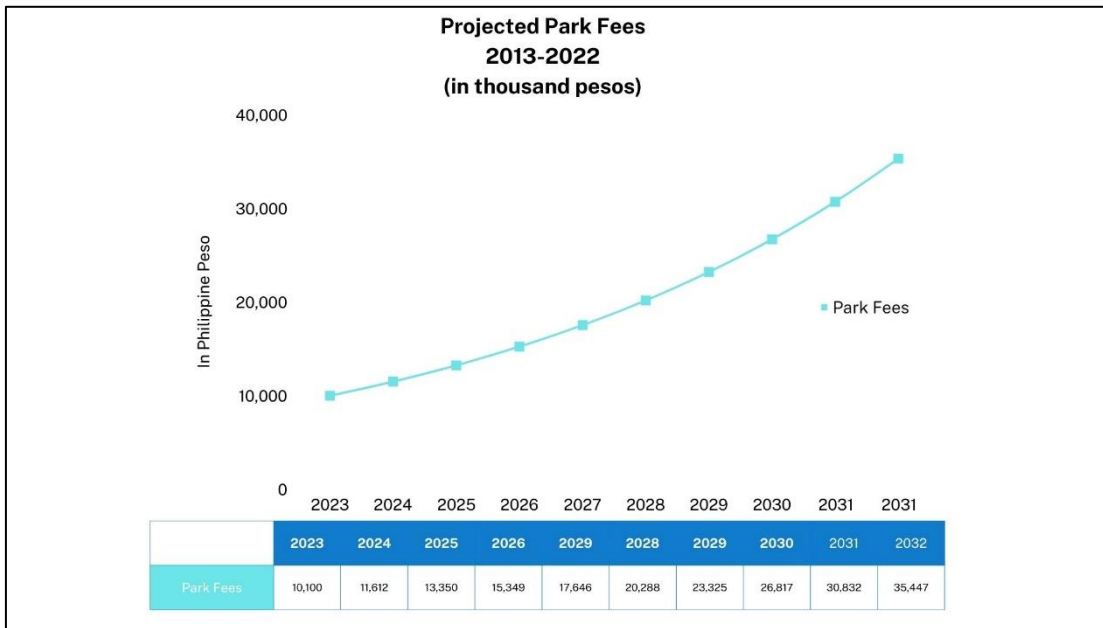


Figure 12. Projected tourism revenue for the next 10 years, based on a growth rate of 14.9%.

### 9.3.2 Financial Requirement

Conserving Tubbataha for the next ten years requires a budget of PhP822 million (Figure 13). This sum incorporates PhP180 million for the Ranger Station as capital outlay (CO), alongside in-kind support from WWF-Philippines of PhP87 million for Cagayancillo development projects, and PhP36 million in personnel and logistics from the Philippine Navy/Coast Guard.

After deducting the CO, and the in-kind support, TMO has to mobilize PhP519 million or PhP52 million annually to cover personnel, administrative and program expenses.

For the year 2023, the budget allocated for personnel will cover 19 contractual staff with remuneration below government employee rates. If the Department of Budget and Management (DBM) approves the proposed plantilla positions for TMO in 2024, the budget will increase from PhP8 million to PhP25 million to support 35 positions. The salaries and benefits of personnel in these positions will follow government-prescribed rates.

The allocation for programs is projected to increase every three years, mainly due to replacing and maintaining essential field equipment such as patrol boats, hulls, engines, radar, and other surveillance equipment.

Aside from salary adjustments when the plantilla positions for staff are approved, administrative expenses will remain constant, while the construction of the Ranger

Station is expected to require a substantial investment in the next two years, or until it is completed.

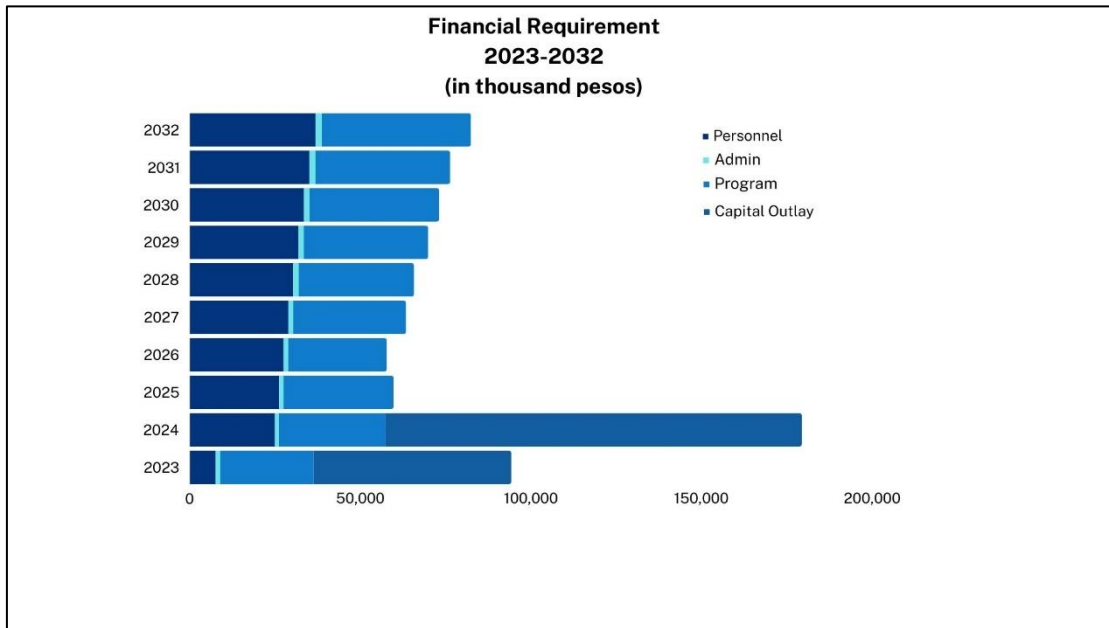


Figure 13. The funding requirements for the management of Tubbataha for the next ten years.

### 9.3.3 Financial Gap

The projected park fee collections vs. management costs, excluding capital outlay and partner contributions, are expected to result in a deficit of PHP 341 million (Figure 14). This deficit represents an average of 66% over the next ten years (Table 4). To address this financial gap, TMO will implement additional financial solutions to augment revenues generated from park fees. These strategies include crowdfunding

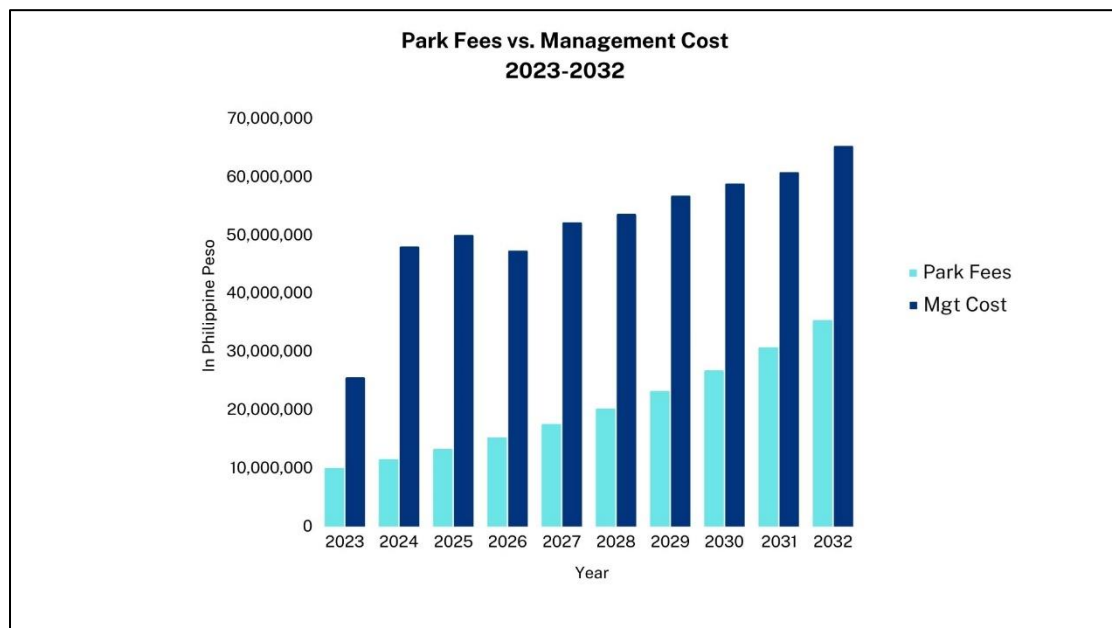


Figure 14. The graphic presentation of projected funding deficit in the next ten years.

(donation-based), digital marketing, diaspora funding, endowment fund, and operationalization of the research station.

Table 4. The estimated fiscal gap after deducting projected tourism revenue.

Year	Park Fees	Management Cost	Projected Budget Deficit	% of Budget Deficit
2023	10,100,172	25,637,303	(15,537,131)	-61%
2024	11,612,168	48,114,963	(36,502,795)	-76%
2025	13,350,509	50,094,392	(36,743,883)	-73%
2026	15,349,080	47,393,892	(32,044,812)	-68%
2027	17,646,838	52,253,513	(34,606,675)	-66%
2028	20,288,569	53,709,608	(33,421,038)	-62%
2029	23,325,768	56,842,488	(33,516,719)	-59%
2030	26,817,636	58,923,662	(32,106,026)	-54%
2031	30,832,236	60,846,041	(30,013,805)	-49%
2032	35,447,822	65,384,026	(29,936,205)	-46%
Total	204,770,798	519,199,888	(314,429,090)	66% (average)

## 10. MANAGEMENT PLAN IMPLEMENTATION

This plan will be implemented by TMO and partners. The budget is based on the present institutional standing of TMO, hence, staff salaries are included in the activities under the various management programs.

Strategies and Activities	Expected Output	Schedule of Implementation	Resources needed	Budget (PhP)	Source of funds
<b>Biodiversity and Habitat Protection, Research, Monitoring and Restoration</b>					
<b>Compliance Management</b>					
1. Law enforcement	At least 120 patrols conducted per year	Annual	Fuel, Floating assets, beacon, GPS, armaments, camera, RADAR, AIS, internet connection, satellite phone, binoculars, laptop, handheld radio, VHF radio, uniforms, infrastructure (ranger station), salaries of marine park rangers	136,031,706.00	TPAMB/External source
			Infrastructure (ranger station)	132,000,000.00	TPAMB/External source
2. Prosecution and resolution of cases	All criminal cases prosper and pursued	Moving target	Transportation Legal retainer	8,552,967.00	TPAMB/External source
3. TAB for admin cases	All administrative cases prosper and pursued	Moving target	Legal retainer	(included in prosecution and resolution of cases)	TPAMB

4. Waste Management - Implementation of MC 10-14 (Pollution by Sewage)  -Implementation of AO No. 02-19 (single-use plastic)  -Clean-ups and characterization of waste	Report from PCG-MEPU  Incident reports from MPR  MPR Daily Accomplishment Report	2022-2031	PCG-MEPU personnel  Fuel, Floating assets, camera  Floating assets, fuel	(included in law enforcement)	TPAMB/External source
<b>Ecosystem Research and Monitoring</b>					
1. Regular monitoring: Fish, benthos and seabirds	Fish, benthos, and seabirds survey conducted every year	2022-2031, 2 <sup>nd</sup> quarter	Boats, travel expenses, diving equipment, camera, airfare for consultants, laptop, salaries of research officer and researchers	46,467,191.00	TPAMB/External grants
2. Targeted research (e.g., marine turtle, sharks, carrying capacity study, vulnerability assessment)	MOA	2022-2031, 2 <sup>nd</sup> quarter	Financial support	41,890,275.00	TPAMB/External grants
3. Provide accurate and timely information to TPAMB for sound decision making	Research reports in TPAMB and ExeCom meetings	2022-2031	Technical capacity		TPAMB

4. Publication of research results and annual ERM report	Publication of research results	2022-2031	Printing, time	(included in regular monitoring)	TPAMB
	Annual ERM report produced	2022-2031	Printing		TPAMB
<b>Tourism Management</b>					
1. Permitting system	At least 90% compliance to tourism regulation	2022-2031	Permitting forms Online permitting facility Office equipment Salary of Tourism Officer	4,854,413.00	TPAMB
2. Mooring system	26 moorings maintained	2022-2031	Watercraft, Diver, Mooring equipment and supplies, Food, Insurance	1,257,789.00	TPAMB/External grants
3. Visitor outreach <sup>1</sup>	1 DO meeting conducted	1 <sup>st</sup> Quarter every year	Food and Venue Transportation	2,628,182.00	TPAMB/External grants
	75% of pre-departure briefings conducted every year	2022-2031, 2 <sup>nd</sup> quarter	Meals and transportation Uniform Insurance (volunteers) Mobile load Tourism information materials		
	Attendance to tourism exhibits/conferences		Travel expenses and printing of information materials		

<sup>1</sup> Visitor outreach only includes activities conducted for the tourism sector and is different from information activities done for the general public, which is under CEPA.



4. Emergency support	Emergency assistance provided	2022-2031, 2 <sup>nd</sup> quarter	Maintenance and parts (OIWR), etc.	62,889.00	
<b>Community Development and Resource Management</b>					
<b>Foster sustainable resource use practices</b>					
1. Share technical knowledge on resource management	Assistance provided (planning and training)  MPR Training of LGU Bantay Dagat	As needed	Boats, travel expenses	1,303,592.00	TPAMB/Partners
<b>Contribute to community-based livelihood projects</b>					
1. Support to LGU Cagayancillo livelihood programs	10% share released to Cagayancillo  Support to livelihood projects (women's plushies)	2022-2031			TPAMB
<b>Communication, Education and Public Awareness</b>					
<b>Public Outreach Program</b>					
1. School campaigns, community visits, online learning program, exhibits	At least 4 outreach activities conducted per year  Participate in at least 1 exhibit	2022-2031	Collateral, sound system, projectors, laptops, props, presentations, meals, transportation, accommodation, CEPA supplies, insurance, raffle prize, salaries of CEPA Officer and assistant	13,519,994.00	TPAMB/External grant

2. Implementation of Tubbataha Youth Ambassador Program	5 TYAs engaged	2023-2031	Financial resources	5,210,052.00	External grant
<b>Information Materials and other products</b>					
1. Development, printing, and distribution of information and other materials	At least 1,500 pieces info materials produced and distributed per year	2022-2031	Brochure, primer, RA 10067, notebooks, tumbler, pen, sticker	5,164,407.00	TPAMB/External grant
<b>Social Marketing</b>					
1. Content development and publication: Facebook, Instagram, Website	120 social media posts per year	2022-2031	Website maintenance, FB boosting, photos and videos	1,886,684.00	TPAMB/External grant
<b>Institutional Strengthening, Partnership, and Capacity-building</b>					
<b>Policy Development</b>					
1. Provision of accurate and timely information to TPAMB for sound decision making (e.g., research results, MEE, etc.)	Reports and updates	2022-2031	Technical capacity	(included in TPAMB/ExeCom meeting)	TPAMB
2. Review Management Plan	Updated Management Plan	2025, 2028 and 2031	Technical capacity	553,367.00	TPAMB

3. Management Effectiveness Evaluation	MEE (METT - 4 <sup>th</sup> Qtr, every 2 years)  Access Cagayancillo socio-economic data for MEE	2022, 2024, 2026, etc.	Technical capacity  Boats, travel expenses, diving equipment, camera, laptop	1,288,467.00  771,247.00	TPAMB/External source
<b>Partnerships</b>					
1. Financial and technical support, social networks	MOA, Letter of Request, Reports	2022-2031		1,157,789.00	TPAMB
<b>Capacity Development</b>					
1. Familiarization tour for TPAMB and partners/TMO	At least 1 fam tour per year to TRNP for TPAMB members	2022-2031, 2 <sup>nd</sup> Quarter	Transportation, meals and accommodation	6,223,117.00	TPAMB/External source
2. Trainings for TPAMB/TMO	At least 75% of park staff participate in trainings (e.g., SOLAS, MPR training, etc.)  At least 1 training organized by TMO per year	2022-2031	Meals and accommodation, transportation, training fees, if applicable	7,341,936.00	TPAMB/External sources

Crosscutting Management Programs					
<b>Sustainable financing</b>					
1. Conservation fees	Continued collection of conservation fees	2022-2031		(included in Management and Operational Expenses)	TPAMB
2. Grants, corporate and corporate foundation donations,	MOA	2022-2031		(included in Partnerships)	External grants
3. Government Support		2022-2031			
4. Crowdfunding (individual giving)		2023			
5. Collaterals (sale of merchandise)		2022-2031			
6. Diaspora Funding					
7. Endowment Fund					
8. Operationalization of research station					
9. Non-Fungible Tokens					
10. Payment for Ecosystem Services	Identification of PES scheme for TRNP	2023-2031	Technical expertise		

Management and Operational Expenses					
1. Salaries			PASu, Executive Assistant, Admin and finance salaries	41,714,711.00	TPAMB
2. PAMB Meetings and Operation	At least 15 TPAMB resolutions formulated	2022-2031	Financial resources for honoraria and snacks, venue	3,282,830.00	TPAMB
3. Office Equipment/furniture		2022-2031		239,010.00	
4. Repair and Maintenance of Office equipment/furniture		2022-2031		251,558.00	
5. Office rental		2022-2031		6,062,402.00	
6. Utilities		2022-2031		2,100,508.00	
7. Office supplies		2022-2031		603,739.00	
8. Transportation and Delivery Expenses		2022-2031		352,181.00	
9. General services		2022-2031		1,056,543.00	
10. Other admin expenses		2022-2031		276,714.00	

## 11. MONITORING AND EVALUATION

The Monitoring and Evaluation Tool to be employed should be able to measure the condition of the Outstanding Universal Value of TRNP.

A management effectiveness evaluation using the Management Effectiveness Tracking Tool (METT-4) will be conducted every three (3) years, as prescribed by DENR. The METT was developed to help track and monitor progress in protected area management effectiveness. It was designed to be a basic and simple mechanism for monitoring progress toward more effective management over time. The tool uses a score card built around the application of the World Commission Protected Area (WCPA) Framework comprising of six components, i.e., context, planning, inputs, processes, outputs, and outcomes.

The monitoring and evaluation results will inform the review of the TRNP Management Plan every three years. MEE will be conducted in the same year as the scheduled review of the Management Plan.

## 12. PLAN MANAGEMENT

This Management Plan will be applicable until 2031. It will be reviewed and updated every three years: 2025, 2028, and 2031.

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## Appendix 1. TRNP Statement of Outstanding Universal Value

### Brief Synthesis

Tubbataha Reefs Natural Park lies in a unique position in the centre of the Sulu Sea, and includes the Tubbataha and Jessie Beazley Reefs. It protects an area of almost 100,000 hectares of high quality marine habitats containing three atolls and a large area of deep sea. The property is home to a great diversity of marine life. Whales, dolphins, sharks, turtles and Napoleon wrasse are amongst the key species found here. The reef ecosystems support over 350 species of coral and almost 500 species of fish. The reserve also protects one of the few remaining colonies of breeding seabirds in the region.

#### **Criterion 7: “to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance”**

Tubbataha Reefs Natural Park contains excellent examples of pristine reefs with a high diversity of marine life. The property includes extensive reef flats and perpendicular walls reaching over 100m depth, as well as large areas of deep sea. The remote and undisturbed character of the property and the continued presence of large marine fauna such as tiger sharks, cetaceans and turtles, and big schools of pelagic fishes such as barracuda and trevallies add to the aesthetic qualities of the property.

#### **Criterion 9: “to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals”**

Tubbataha Reefs Natural Park lies in a unique position in the middle of the Sulu Sea and is one of the Philippines’ oldest ecosystems. It plays a key role in the process of reproduction, dispersal and colonization by marine organisms in the whole Sulu Sea system, and helps support fisheries outside its boundaries. The property is a natural laboratory for the study of ecological and biological processes, displaying the ongoing process of coral reef formation, and supporting a large number of marine species dependent on reef ecosystems. The presence of top predator species, such as tiger and hammerhead sharks, are indicators of the ecological balance of the property. The property also offers a demonstration site to study the responses of a natural reef system in relation to the impacts of climate change.

#### **Criterion 10: “to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation”**

Tubbataha Reefs Natural Park provides an important habitat for internationally threatened and endangered marine species. The property is located within the Coral Triangle, a global focus for coral biological diversity. The reefs of the property



support 374 species of corals, almost 90% of all coral species in the Philippines. The reefs and seas of the property also support eleven species of cetaceans, eleven species of sharks, and an estimated 479 species of fish, including the iconic and threatened Napoleon wrasse. The property supports the highest population densities known in the world for white tip reef sharks. Pelagic species such as jacks, tuna, barracuda, manta rays, whale sharks and different species of sharks also are common here and the property is a very important nesting, resting and juvenile development area for two species of endangered marine turtles: green turtles and hawksbill turtles. There are seven breeding species of seabirds and Bird Islet and South Islet are breeding grounds to seven resident and endangered breeding species of seabirds. The critically endangered Christmas Island Frigatebird is a regular visitor to the property.

### **Integrity**

The property comprises two atolls (North and South Atoll) and an emergent coral cay, Jessie Beazley Reef. It includes open sea with an average depth of 750 m and still displays a well-preserved marine ecosystem with top predators, and a large number and diversity of coral reef and pelagic species. The property also hosts an important population of resident, nesting and feeding seabirds. The area is free of human habitation and activities and is of a sufficient size to maintain associated biological and ecological processes. The property is of an adequate size to ensure the complete representation of the key features and processes of the reef systems within it, although the maintenance of these values also requires measures to be taken outside the boundaries of the property in relation to some migratory species and the buffering of the property from threats to the marine environment that could occur in the wider area. A key aspect of the integrity of the property is the low level of fishing pressure, due to the no-take policies which are in place throughout its area.

### **Management and protection requirements**

Tubbataha Reefs Natural Park is legally protected through national protected areas legislation and a range of other environmental legislation which enable action to be taken against a wide range of threats. The implementation of the legislation is assisted by clear delegation to the management authority for the property. This is a remote property and its management is therefore a significant logistical challenge, requiring a well-equipped team with operational boats, well trained and well equipped staff and a sufficient operating budget for fuel, maintenance and accommodation to ensure a strong and responsive presence on the water. Tourism visitation requires careful planning and management to ensure the values of the property are maintained, and to respect the capacity of the property, as well as visitor safety and to ensure income is returned to both site management and local communities. There are threats to the property from shipping, marine litter, fishing, marine pollution and oil exploration. Thus effective buffer zone arrangements are needed, and internationally supported legislation to protect the property from

shipping threats, and greater enforcement of marine litter regulation on the High Seas by the appropriate international organizations would be a significant benefit to the property.

### **Historical Description**

11 August 1988. Established under Proclamation No. 306; also protected under Presidential Decree No. 705 (Forestry Reform Code). Inscribed on the World Heritage List in 1993.