



# **Conservation at Work** 2024 TMO Annual Report

## **Table of Contents**

Introduction	1
Overview	2
TRNP General Management Plan	3
Biodiversity and Habitat Protection, Research, Monitoring, and Restoration	4
Community Development and Resource Management	10
Communication, Education, and Public Awareness	n
Institutional Strengthening, Partnership, and Capacity-building	14
Crosscutting Management Program	17
Financials	18
Highlights for 2024	20
Prospects for 2025	23
Who We Are	24



## Introduction

This annual report was prepared for the Tubbataha Protected Area Management Board (TPAMB or the Board) to complement the audio-visual presentation of the Tubbataha Management Office (TMO) 2024 Annual Report. It is also dedicated to our partners and donors, whose steadfast support has been the wind in our sails, moving us forward as we navigate the waves of change and uncertainty.

Within these pages, we offer a concise glimpse of the tides we've turned this year—our physical and financial achievements, the milestones we've reached, and the horizons we aim to explore in 2025. We have deliberately kept this report brief with respect to your valuable time. Yet we hope it provides a clear view of how your contributions have charted a course for success in Tubbataha in 2024. Your unwavering support has been the anchor of our mission, and this report shows you just how.

# **OVERVIEW**

Republic Act No. 10067, otherwise known as the Tubbataha Reefs Natural Park (TRNP) Act of 2009, is the main statutory framework for the management of Tubbataha. It established a 97,030-hectare no-take zone in the middle of the Sulu Sea under both the National Integrated Protected Area System Act (RA 7586) and the Strategic Environmental Plan for Palawan Act (RA 7611).

It also created the inter-institutional Tubbataha Protected Area Management Board (TPAMB), which is vested with the sole power to formulate policies for the park. The Tubbataha Management Office was established under Section 14 of RA 10067 to implement the policies of the TPAMB.

#### Tubbataha Protected Area Management Board

Co-chairs: PCSD & DENR

Executive Committee	Tubbataha Adjudication
	Board

#### Tubbataha Management Office

Protected Area Superintendent

### **OUR MISSION**

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

© TMO/Dylan Chua

## OUR 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.

© Tet Lara

## THE TRNP GENERAL MANAGEMENT PLAN

## (2022-2031)

The TRNP General Management Plan (GMP) serves as the blueprint for conserving and managing Tubbataha effectively. The TMO develops the plan which is implemented upon the approval of the TPAMB.

The goals for the management of Tubbataha is to:

- preserve the outstanding universal value of Tubbataha and to manage it in a sustainable basis
- protect biological diversity and maintain ecological balance
- provide benefits to communities
- support global conservation goals

The plan outlines a comprehensive framework for resource management to optimize the use of human, financial, and technical resources. Central to its vision is cultivating meaningful partnerships, enhancing compliance strategies, and integrating research for data-driven management policies. By championing conservation-centered tourism and fostering deeper community engagement, the plan aspires to secure a sustainable and thriving future for TRNP.

# THE FIVE MANAGEMENT PROGRAMS

Biodiversity and Habitat Protection, Research, Monitoring & Restoration

**Community Development and Resource Management** 

**Communication, Education, and Public Awareness** 

Institutional Stengthening, Partnership, and Capacity Development

**Crosscutting Management Programs** 

#### BIODIVERSITY AND HABITAT PROTECTION, RESEARCH, MONITORING AND RESTORATION



#### COMPLIANCE MANAGEMENT

Marine park rangers went above and beyond the call of duty by conducting 162 patrols—well exceeding the required 120 per year.

All six scheduled relieving trips were successfully completed, ensuring seamless operations.

In March, rangers apprehended two foreign yachts, S/Y Alba and S/Y Rumi, for illegal entry into Tubbataha. In August, they arrested a fishing boat for the same violation. Legal action was taken against all offenders.

Meanwhile, inspection trips to the new ranger station that is being constructed were conducted in May and August, with representatives from the Department of Environment and Natural Resources (DENR), Tourism Infrastructure Enterprise Zone Authority (TIEZA), Commission on Audit (COA) and TPAMB participating.



MBca Don JJ was apprehended in the North Atoll on 15 August 2024. On board were five fishers from Negros Occidental. Cases for illegal entry and fishing were filed in court.



The central structure of the new ranger station is taking shape. DENR will fund the completion of the main structure, while TIEZA will fund the other two.

#### **ECOSYSTEM RESEARCH & MONITORING**

#### **Reef Benthos and Benthos Assessment**

Hard coral cover (HCC) is at 25% (Category C) in monitoring sites. While stable in deep areas (~10m), shallow areas (2-6m) showed a 1.2% annual decline most likely due to typhoons, bleaching, and eutrophication, hindering coral recovery.

In areas outside regular monitoring, HCC averages 33% (also Category C). The highest HCC (54–64%) was recorded in the SE portion of North Atoll, although these areas exhibited low coral diversity. Literature indicates that reefs with low diversity are more vulnerable to climate impacts compared to those with average diversity levels. In contrast, sites exposed to monsoon winds demonstrated higher diversity.



Ranger Jeffrey "Jeff" David equipped with monopod and transect tapes, completed the photo transects of the reef at a depth of 10m.



Ranger Segundo "Seconds" Conales, Jr., of the fish team 'reads' fish by meticulously recording the species, size, and counts fish he encounters in the transects.

#### **Reef Fish**

The fish population showed high species richness, biomass, and density. While these metrics have remained stable in shallow waters (~5m), deeper areas (~10m) have experienced an annual decline of 13 g/m<sup>2</sup> over the past decade. This trend is likely tied to rising sea temperatures, coral degradation, natural migratory patterns, potential observer bias, and fishing activities near park boundaries.



#### Seabirds

A total of 31,295 adult seabirds were recorded, reflecting a 4% increase compared to 2023. However, a 77% decline in Sooty Terns was observed, likely due to changes in breeding cycle.

Notably, Bird Islet expanded by 21% since 2023, likely supported by ongoing habitat restoration efforts, including beach reforestation and erosion control measures.

Male masked boobies offer "gifts", small items like sticks or stones as part of their elaborate courtship and bonding ritual.

#### Water Quality

Most parameters met the highest level of water quality for protected waters. However, sea surface temperature (SST) reached 34°C, exceeding the 31°C threshold that triggers coral bleaching.

#### **Beach Erosion Mitigation**

The northeast shoreline of Bird Islet is eroding, likely due to climate-driven factors (e.g., sea level rise, stronger typhoons).

Various methods were used to study the islet's characteristics. Experimental activity, i.e., beach nourishment, was conducted to extend the shoreline.



From above, Bird Islet perfectly embodies its name, its outline mirroring the chubby form of a bird.



The Harlequin Hind (Cephalopolis polleni), documented by Kent Carpenter and Klaus Stiefel, has not been observed at regular monitoring sites due to its preference for depths beyond the TMO's monitoring range.

© Klaus Stiefel

#### **Fish Inventory**

Drs. Kent Carpenter and Klaus Stiefel returned for the fourth year of the fish inventory, surveying multiple sites, including the South Atoll lagoon. To date, 37 stations across the park have been assessed. Thirty-two (32) unlisted species were added this year, bringing the total to 135 species previously undocumented before the study began.

#### Napoleon Wrasse

The 2017 assessment of Napoleon wrasse in Tubbataha recorded an average density of 6.83 individuals/ha, peaking at 19.35 in North Atoll. By 2024, density rose to 12.95 individuals/ha, with South Atoll showing the highest at 27.18 individuals/ha. Juveniles observed in the South Atoll lagoon confirmed Tubbataha's role as a nursery ground for the species. The 88% increase in population demonstrates the success of full protection, although the reefs may be nearing their ecological threshold.



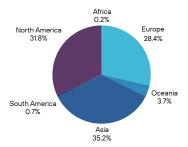
The Napoleon wrasse (Cheilinus undulatus), a flagship species in Tubbataha, can live more than 30 years. The International Union for Conservation of Nature (IUCN) categorized them as Endangered.

#### TOURISM MANAGEMENT





3,686 TOURISTS





3 out of 5 divers are MALE

**16 DIVE BOATS** 

Demographics by Region



#### Top 3 Nationalities



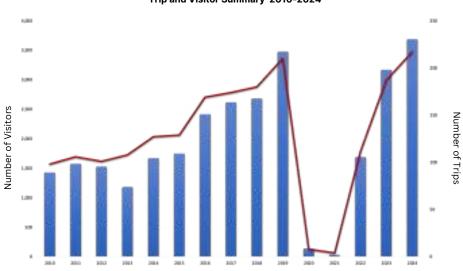
PASu Angelique Songco (front row, center) poses with the volunteers of Saving Philippines Reefs Coral Reef Monitoring Expedition headed by Dr. Alan White (back row, 3rd from left) of the Coastal Conservation and Education Foundation, Inc., in May 2024.



TMO promotes safety and environmental stewardship by conducting a briefing for the crew of MV Naryana

#### **Pre-departure briefings**

Pre-departure briefings were conducted for 75% of trips to underscore adherence to park regulations and foster responsible practices to protect the environment.



#### Trip and Visitor Summary 2010-2024

#### COMMUNITY DEVELOPMENT RESOURCE MANAGEMENT

#### Foster sustainable resource use practices and contribute to community-based livelihood program



Bantay Dagat personnel from Cagayancillo are assigned as marine park rangers in Tubbataha where they gain hands-on experience on compliance monitoring and enforcement.

Cagayancillo Bantay Dagat personnel were engaged and trained on resource use practices as marine park rangers. The learnings and experience from working in Tubbataha have been transferred and are useful in managing local reserves in Cagayancillo.

Ten percent (10%) of the tourism revenues this year were allocated for livelihood projects and MPA management in the municipality.

The Cagayancillo Women for Tubbataha Association (CWTA) was engaged in setting up a beach forest nursery in their locality to support reforestation efforts in Tubbataha.

They were also able to sell their handmade plushies in Tubbataha during the dive season and nationwide through a partnership with Coffee Bean and Tea Leaf (CBTL) coffee shop company.



A member of the CWTA grow Anoling, a beach forest tree, for replanting in Bird Islet.



Plushies sewn by CWTA members on display in some CBTL shops in the Philippines.

#### COMMUNICATIONS, EDUCATION, AND PUBLIC AWARENESS

PUBLIC OUTREACH



A memorable school activity with San Nicolas Elementary school students, Aquous Foundation staff and TMO , inspiring young minds to care for our oceans

TMO conducted a total of six online and offline outreach programs to promote environmental conservation, targeting diverse audiences such as university students, young leaders, and children at:

- Palawan State University
- Sultan Kudarat State University
- San Nicolas Elementary School
- Tumarbong Elementary School
- Youth Leaders of Puerto Princesa City
- Puerto Princesa Pilot Elementary School



Over 100 students joined the lesson on marine conservation through an engaging online school activity.



TMO, UNACOM Philippines, IBBY-PH and artist Levi Arnan join children during the turnover of over 1,000 storybooks, inspiring the next generation to protect our oceans

We actively participated in various environmental celebrations, including the Maritime Archipelagic Nation Awareness Month (MANA Mo), World Wildlife Day, the Philippine Ocean Decade Initiative, and the Department of Tourism Grand Launching of the Philippine Experience Program at the Palawan Heritage Center.



Tubbataha's exhibit in partnership with UNACOM Philippines during the Philippine Ocean Decade Initiatives Exo



Palawan State Univeristy President Dr. Docto shares a message during the MANA Mo opening of the exhibit



Showcasing the vibrant marine biodiversity of Tubbataha at the Palawan Heritage Center through a photo exhibit

#### INFORMATION MATERIALS AND OTHER PRODUCTS

- **Children's storybook**: We produced and distributed Ako si Klawni ng Tubbataha, Nanalangin, in Cagayancillo, Palawan, in partnership with WWF-Philippines and with funds from the Malampaya Foundation and UC38, a Udenna Company. The second edition, which includes an English translation, was developed and produced in partnership with the UNESCO National Commission of the Philippines and the International Board on Books for Young People-Philippines.
- **Billboards**: Two (2) Tubbataha billboards were installed at the Puerto Princesa City Airport and one (1) at the Ninoy Aquino International Airport
- Seabird fact sheets: A seabird fact sheet was developed and published online in collaboration with the Foundation for the Philippine Environment and SAGUDA Palawan



Grade 5 children of Magsaysay Elementray school in Cagayancillo solve the puzzles in Ako si Klawni.



Two Tubbataha billboards greet travelers at Puerto Princesa International Airport



Tubbataha billboard at NAIA encourages travelers to learn more about our oceans



Explore the Seabird Factsheet at <u>www.tubbatahareefs.org/research</u>

#### SOCIAL MARKETING

Over 85 news articles and features were uploaded across diverse media platforms highlighting the work of keeping Tubbataha safe.

Our social media platform reached nearly 291,000 viewers and generated over 5,500 engagements.



Palawan News covered the Klawni book launch event



Facebook insights from a Mama Ranger Diaries post



Our website's new look, go to tubbatahareefs.org



GMA 7's "State of the Nation" features the coral bleaching event in Tubbataha

#### INSTITUTIONAL STRENGTHENING, PARTNERSHIP, AND CAPACITY DEVELOPMENT

#### POLICY DEVELOPMENT

The TPAMB reviewed and updated three core policies to ensure they address changing conditions and emerging challenges effectively. These are:

- Implementing Rules and Regulations, R.A. 10067 (Admin Order No. 1)
- TRNP Tourism Rules and Regulation
- Tubbataha Adjudication Board Rules of Procedures



#### CAPACITY BUILDING

In order to continuously improve, TMO organized and participated in a total of 27 trainings, conferences, and workshops this year. Here are some of them:



23rd Comprehensive Training for Marine Park Rangers of Tubbataha



CEPA Plan Review: Digital Communication Strategy with RARE



Benchmarking in UNESCO World Heritage Sites in the Philippines and in Vietnam



Drone and Satellite Remote Sensing Training with Philippine Space Agency

#### PARTNERSHIP

We extend our heartfelt gratitude to the organizations and individuals whose support has been invaluable to our work this year. To our donors, who choose to remain anonymous, we deeply appreciate your generosity and trust.



Mr. Antonio Moraza Dr. Kent Carpenter Dr. Klaus Stiefel Dr. Fernando Siringan Dr. Cesar Villanoy

Dr. John Ong Dr. Caroline Jaraula Mr. Zenon Mateo Mr. Denmark Recamara

#### **CROSSCUTTING MANAGEMENT PROGRAMS**

#### SUSTAINABLE FINANCING



TMO staff model the various merchandise sold exclusively at the ranger station

#### Merchandise

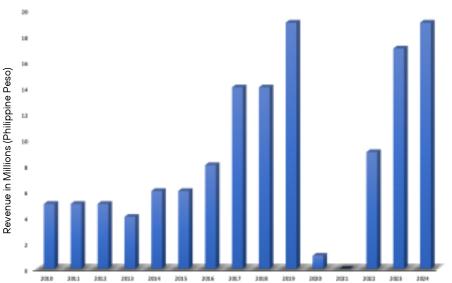
In partnership with Saguda Palawan, Inc., merchandise such as T-shirts, sun hats and headwares are sold at the ranger station every summer.



The first meeting of Conservational International (CI), CI-Philippines, Terra Carbon, Friends of Tubbataha and TMO on September 2024

#### **Nature Credits**

For long-term financing, Conservation International is preparing TMO to leverage the nature credits market.



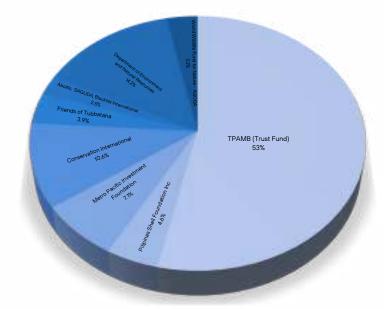
#### Tourism Revenue Summary from 2010-2024

Our revenue showed significant recovery after the sharp decline during the COVID-19 pandemic. Tourism rebounded in 2022 and hit a record high in 2024, surpassing prepandemic levels, highlighting the park's growing prominence as a top diving destination.

#### FINANCIALS

#### **TRNP Trust Fund**

Established under Section 17 of RA 10067, the TRNP Trust Fund consists mainly of conservation fees paid by tourists and is used to finance the management of Tubbataha. Collections from each year are allocated for use the following year, and any unexpended funds are retained in the TRNP Trust Fund.



## 2024 Source of Funds

# Where did the funds go? Expenditures per Program and Source TPAMB Grant Crosscutting Management Program Institutional Strengthening, Partnership, and Capacity-building Communication, Education, and Public Awareness Community Development and Resource Management Biodiversity and Habitat Protection, Research, Monitoring & Restoration Management and Operations

5

In Millions (Philippine Peso)

8

10

12

0

2

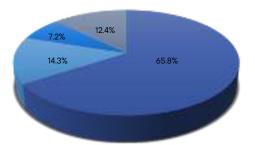
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The total budget for the year 2024 amounted to ₱29.13 million, with the highest allocation directed towards Biodiversity and Habitat Protection, Research, Monitoring, and Restoration. This reflects the organization's commitment to preserving the ecological integrity of Tubbataha Reefs Natural Park, ensuring that critical conservation efforts remain a top priority.

## Where did the funds go?

In 2024, the TPAMB spent ₱15.3M, covering 52.67% of the total budget. The funds were allocated as follows:

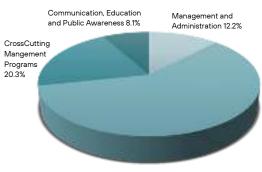
- P10.1M for Management and Administration, sustaining daily operations, staff salaries, and recurring costs;
- ₱2.2M for Biodiversity and Habitat Protection, supporting enforcement and monitoring initiatives;
- ₱1.9M for Community Development and Resource Management;
- ₱46,000 for Communication, Education, and Public Awareness; and
- ₱1.1M for Crosscutting Management programs.



#### 2024 Use of TRNP Trust Fund

Grants contributed an additional ₱13.8M, raising the total funding to ₱29.1M. Of this, ₱8.8M supported regular patrols and biodiversity and habitat protection and monitoring. Public awareness campaigns were bolstered with ₱1.2M, while ₱1.8M strengthened the capacity of park staff and facilitated collaboration with partners. An additional ₱3M was dedicated to advancing sustainable financing efforts.

Together, these contributions ensured uninterrupted operations and protection efforts for the Tubbataha Reefs, proving once again that in conservation, partnership is the only way to go.



#### 2024 Use of Grants

Biodiversity, Habitat Protection, Enforcement and Monitoring 59.5%

# 2024 Highlights



#### **New Ranger Station**

Phase II (Main Module) of the new ranger station is now 90% complete. The Department of Environment and Natural Resources (DENR) has committed an additional ₱76.5 million, while TIEZA has allocated ₱50 million to support the construction of the helipad and research station.

#### Seabird Tracking Project

The Foundation for the Philippine Environment is funding the Seabird Satellite Telemetry Project that will commence in 2025—another first for Tubbataha.



# 2024 Highlights





## The Celebration of Tubbataha's 31st Years on the World Heritage List

The celebration of Tubbataha's 31<sup>st</sup> year in the World Heritage List also marked the launch of the children's storybook, "Ako, si Klawni ng Tubbataha, Nananalangin."

The book revolves around Klawni, a clownfish that dreams of a bright future where reefs thrive and creatures live safely. He harbors a deep worry—his home is under threat. It encourages children to take action to preserve Tubbataha's beauty and laughter.

# 2024 Highlights



#### **Nature Credits**

Tubbataha has been selected as the pilot site for pioneering efforts in nature crediting for the marine environment, an innovative approach to sustainable financing for marine protected areas. This groundbreaking initiative, spearheaded by Conservation International, aims to unlock new opportunities for conserving and protecting our oceans.



#### **Environmental DNA in World Heritage Sites**

We are honored to be among the 21 sites that participated in the global Environmental DNA (eDNA) Expeditions across World Heritage marine sites. This pioneering initiative marked the first global application of citizen science in detecting ocean biodiversity through standardized eDNA collection methods.

Through this effort, 621 marine species were identified in Tubbataha, including 84 previously unrecorded fish species.

# **PROSPECTS FOR 2025**

The horizon for 2025 is brimming with promise and transformative opportunities. Among those that we eagerly anticipate are:

- Implementing the Effectively Managing Networks of Marine Protected Areas in Large Marine Ecosystems in the ASEAN Region (ASEAN ENMAPS) initiative aims to expand MPAs and improve governance and knowledge management.
- Compelling documentaries to be produced that aim to shine a global spotlight on the Tubbataha conservation story.
- A generous contribution from Global Conservation to equip and train our rangers in using a cutting-edge monitoring system to fortify our enforcement efforts.
- An enriching Shadow Ranger Program in partnership with the Great Barrier Reefs in Australia, offering invaluable training and knowledge exchange for our marine park rangers.

There are many more! But none overshadow our great expectations on our move to the new ranger station in 2025! Thank you in advance to our partners for making this happen at last!



# Who We Are

## **Tubbataha Protected Area Management Board**

The TPAMB, established under Republic Act 10067, is the multi-sectoral policy-making body for Tubbataha Reefs Natural Park. Composed of representatives from diverse sectors, the TPAMB harmonizes conservation goals with stakeholder interests through policy development and strategic direction.



## Tubbataha Management Office

The Tubbataha Management Office (TMO), established under Section 14 of Republic Act No. 10067, oversees the day-to-day operations of Tubbataha. Headed by the Protected Area Superintendent, the TMO operates through various units, including research, enforcement, communications and education, and visitor management.



Charmaine R. Aguilar Admin Assistant for General Administrative Services Jheson Elijan Admin Aide

## TUBBATAHA MANAGEMENT OFFICE

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