



CORAL TRIANGLE
INITIATIVE
ON CORAL REEFS, FISHERIES
AND FOOD SECURITY



SOM19
SOCIETY OF OCEANOGRAPHERS

THE 19TH SENIOR OFFICIALS' MEETING

Country Report:

PAPUA NEW GUINEA

MS YVONNE TIO

PNG NCC

DILI, TIMOR-LESTE | 4th -5th December 2024

www.coraltriangleinitiative.org



OUTLINE



- 01 COUNTRY FOCAL POINTS
- 02 COUNTRY PROFILE
- 03 TECHNICAL WORKING GROUP
PROGRESS/ACCOMPLISHMENTS TOWARDS NPOA
- 04 MONITORING AND EVALUATION
WORKING GROUP
- 05 POTENTIAL REGIONAL PROGRAM AND
SUPPORT REQUIRED
- 06 NATIONAL ROADMAP 2024
(FOR EACH WORKING GROUP)
- 07 CORAL TRIANGLE DAY CELEBRATION
- 08 COMMUNICATION AND PUBLICATIONS
- 09 STORY FROM THE FIELD
- 10 [OTHER]



Country Focal Points 2023-2024

WORKING GROUP	FOCAL POINT	AGENCY
National Coordination Committee	Ms. Kumaras Kalim Director, Sustainable Environment Programs	Conservation and Environment Protection Authority, Ministry of Environment, Conservation and Climate Change
Seascope	Ms. Yvonne Tio Executive Manageress, Marine Environment Division	Conservation and Environment Protection Authority, Ministry of Environment, Conservation and Climate Change
EAFM	Mr. Thomas Usu Executive Manager, Fisheries Management Business Group	National Fisheries Authority, Ministry of Fisheries and Marine Resources
MPA	Mr. Bernard Suruman Manager, Marine Protected Areas, Marine Environment Division	Conservation and Environment Protection Authority, Ministry of Environment, Conservation and Climate Change
TSWG	Mr. Vagi Rei Manager, Marine Ecosystem Management, Marine Environment Division	Conservation and Environment Protection Authority, Ministry of Environment, Conservation and Climate Change
CCA	Mr. Iki Peter Manager, Adaptation, Adaptations and Projects Division	Climate Change Development Authority, Ministry of Environment, Conservation and Climate Change

WORKING GROUP	FOCAL POINT	AGENCY
FRWG	TBC Ms. Yvonne Tio Executive Manageress, Marine Environment Division	Department of Treasury Conservation and Environment Protection Authority, Ministry of Environment, Conservation and Climate Change
MEWG	Ms. Yvonne Tio Executive Manageress, Marine Environment Division	Conservation and Environment Protection Authority, Ministry of Environment, Conservation and Climate Change
IRC	Ms. Yvonne Tio Executive Manageress, Marine Environment Division	Conservation and Environment Protection Authority, Ministry of Environment, Conservation and Climate Change
WLF	TBC	
CT Atlas	Mr. Bernard Suruman Manager, Marine Protected Areas, Marine Environment Division	Conservation and Environment Protection Authority, Ministry of Environment, Conservation and Climate Change
CTMPAS Nomination Committee		

Country Profile

Country Profile

Government profile:

- Summary of NPOA Focuses & Priorities:
 - (i) Seascapes (ii) EAFM (iii) MPA & OECM (iv) CCA (v) TS (vi) Sustainable Livelihood for Communities (vii) Waste management (viii) Capacity development – Empowerment (ix) equitable & sustainable financing
- Departments in charge for conservation activities:
 - ✓ Conservation and Environment Protection Authority; National Fisheries Authority; Climate Change & Development Authority; National Oceans Office
- National trust fund related to conservation:
 - ✓ National Biodiversity and Climate Fund (BCF)

Country Profile

Biophysical profile:

- Coral reefs coverage:

	Reef Areas	Total coverage (Km2)
1	Reef flat (shallow)	3,950.6
2	Reef flat (deep)	1,380.0
3	Fore-reef (exposed)	836.4
4	Reef slope (shallow)	4,138.9
5	Reef slope (deep)	1,984.3
6	Reef (lagoon/basin)	11,738.4

Country Profile

Biophysical profile:

- Coral reefs coverage: The total area of coral reefs is estimated to be around **20,000 to 25,000 square kilometers** (2 to 2.5 million hectares)
- Coral diversity: Has over **600 species of corals** recorded, including both **hard (scleractinian) corals** and **soft corals**.
- Fish diversity: 1635 reef- associated species
- Fish diversity: Over **1,800 species of fish**. Including **Pomacentridae**: Damselfish (e.g., *Pomacentrus* species); **Scaridae**: Parrotfish (e.g., *Chlorurus* species); **Serranidae**: Groupers (e.g., *Epinephelinae* species); **Lutjanidae**: Snappers (e.g., *Lutjanus* species); **Labridae**: Wrasses (e.g., *Labrus* species); **Chaetodontidae**: Butterflyfish (e.g., *Chaetodon* species); **Scombridae**: Mackerels and tunas (e.g., *Thunnus* species); **Carcharhinidae**: Sharks (e.g., *Carcharhinus* species); **Sphyrnidae**: Hammerhead sharks (e.g., *Sphyrna* species) and **Acanthuridae**: Surgeonfish (e.g., *Acanthurus* species).
- Marine mammal diversity: More than **30 species** of whales, dolphins, and dugongs recorded.

Biophysical profile:

Other threatened species of concern:

MARINE TURTLES	SHARKS	RAYS AND SKATES	CORALS	FISH SPECIES	SEA BIRDS	SEAGRASSES AND MANGROVES
<p>Green Turtle (<i>Chelonia mydas</i>): Endangered. Threatened by habitat loss, poaching for eggs and meat, and entanglement in fishing gear. Vulnerable due to the loss of nesting sites on beaches.</p> <p>Hawksbill Turtle (<i>Eretmochelys imbricata</i>): Critically Endangered. Known for their shells, which are targeted by illegal trade. They face threats from hunting, coastal development, and habitat degradation.</p> <p>Leatherback Turtle (<i>Dermochelys coriacea</i>): Vulnerable. The largest sea turtle, migrating through PNG's waters. Threatened by marine pollution (especially plastics), accidental capture in fishing gear, and loss of nesting sites.</p> <p>Olive Ridley Turtle (<i>Lepidochelys olivacea</i>): Vulnerable. Though more common, they face threats from bycatch, coastal development, and habitat destruction.</p>	<p>Whale Shark (<i>Rhincodon typus</i>): Vulnerable. The world's largest fish, found in PNG's warm waters. Threatened by entanglement in fishing nets, boat strikes, and climate change impacts on feeding grounds.</p> <p>Hammerhead Sharks (e.g., <i>Sphyrna mokarran</i>, <i>Sphyrna lewini</i>): Threatened by overfishing, habitat destruction, and the shark fin trade. The scalloped hammerhead is Endangered, and the smooth hammerhead is Vulnerable.</p> <p>Grey Reef Shark (<i>Carcharhinus amblyrhynchos</i>): Near Threatened. Important coral reef predators, threatened by overfishing and coral reef degradation.</p> <p>Oceanic Whitetip Shark (<i>Carcharhinus longimanus</i>): Critically Endangered. Threatened by overfishing and bycatch in longline and purse seine fisheries.</p>	<p>Manta Rays (<i>Manta alfredi</i>, <i>Manta birostris</i>): Vulnerable or Near Threatened. Targeted for their gill plates and at risk from coral reef degradation. PNG hosts significant populations, particularly around Milne Bay and the Bismarck Archipelago.</p> <p>Mobula Rays (<i>Mobula</i> species): Threatened by overfishing (for gill plates), habitat loss, and pollution. Their numbers are declining globally, including in PNG.</p>	<p>Acropora Corals: Many species in this genus are Vulnerable or Endangered due to coral bleaching from rising sea temperatures, climate stress, and disease outbreaks.</p> <p>Lobophyllia spp.: Some species in this genus are Vulnerable or Endangered due to overfishing for the aquarium trade and impacts from climate change.</p>	<p>Napoleon Wrasse (<i>Cheilinus undulatus</i>): Endangered. Targeted by the live reef food fish trade and overfishing, also sought after for the aquarium trade.</p> <p>Titan Triggerfish (<i>Balistoides viridescens</i>): Faces local overfishing pressures, especially in tourist-heavy areas, but is not critically endangered. Important for coral reef ecosystem health.</p> <p>Blue Tang (<i>Paracanthurus hepatus</i>): Not endangered, but overfishing and high demand in the aquarium trade may lead to population declines.</p>	<p>Becks Petrel (<i>Pterodroma becki</i>): Critically Endangered. Threatened by Habitat loss due to coastal development, predation by introduced species (e.g., rats and cats), climate change and disturbance from human activity</p> <p>Pacific Black-winged Petrel (<i>Pterodroma nigripennis</i>): Near Threatened. Vulnerable due to its restricted range and nesting sites on remote islands, which are increasingly threatened by human activity.</p> <p>Sooty Tern (<i>Onychoprion fuscatus</i>): Not endangered but faces pressure from habitat loss due to coastal development and climate change impacts on nesting areas.</p>	<p>Seagrass beds These habitats are threatened by coastal development, pollution, and overfishing.</p> <p>Mangrove forests are increasingly being cleared for agriculture, urban expansion, and coastal development.</p>

Country Profile

Socio-economic profile:

- **Demographic:** As of 2024, PNG's population is estimated to be around **9 million** people.
- **Male-female ratio:** The gender ratio is balanced, with a slight male population skew, with **Male: 49.5%** and **Female: 50.5%**
- **GDP:** PNG's economy is primarily driven by natural resources, including oil, gas, minerals, and agriculture. As of 2024, **Papua New Guinea's (PNG) Gross Domestic Product (GDP)** is estimated to be around **USD 23.5 billion**.
- **Number of community living on the coastal zone:** It is estimated that around **80%** of PNG's population lives in coastal or near-coastal areas, which would be approximately **7.2 million people** based on the total population of 9 million.
- **Number of fisherfolk:** It is estimated that over **500,000 people** in PNG are directly involved in fishing activities. This includes both **subsistence (artisanal) fishers** and those involved in **commercial fishing**.

The background of the slide is an underwater photograph. On the left, a diver is visible, illuminated by a bright light, swimming towards the right. In the center-right, a large sea turtle is resting on a coral reef. The water is dark blue, and the coral is various shades of brown and orange. The overall scene is serene and highlights marine life.

Technical Working Groups' Progress/ Accomplishments Towards NPOA

Ecosystem Approach for Fisheries Management

- Relevant regulations for EAFM:
 - **Development of management guidelines for Coconut crabs, Trochus shells, Fish Maw (swim bladder) Fisheries**
 - **Review of existing fishery management plans (Tuna Fisheries, Beche-der-mer Fishery, Mud crab fishery, Prawn & Lobster Fishery)**
 - **Development of the Fore Coast Artisanal Fisheries Management Plan- South Fly, Western Province**
 - **Development plans for coastal fisheries livelihoods programs (eg. IFAD, Trap net) to improve livelihood, income and increase resource sustainability**
 - **Development of National Aquaculture Development Plan focused on elevating the industry to commercial levels:**
- Activities organized/attended related to EAFM:
 - **SSS and BSS Regional Exchange, Kota Kinabalu, Malaysia 12-16 August 2024**
 - **SPC delivered stock assessment training for coastal fisheries**
 - **IKASAVEA application refresher training (data analysis) with creel and market surveys**
- Technological advancement:
 - **iFIMs incorporated mud crab and BDM daily purchase application to monitor TACs per province.**
 - **Use of underwater drone for reef assessments.**
 - **Roll out of small craft safety device (NEMO- New Era Monitoring and Observation)**
- Youth involvement (if any): Engagement of youths in 9/14 maritime provinces to work as FDCs (Fishery data collectors)

Ecosystem Approach for Fisheries Management

- Challenges:
 - Minimizing political influence in management of commercially operated fisheries
 - Effective enforcement of various regulations
 - Budget slash for important livelihood programs such as IFADs, Seaweed farming, Trap net fisheries.
 - Budget slash/funding constraints for important Fisheries dependent habitat rehabilitation programs (Mangrove rehabilitation program, coral restocking/rehabilitation program etc)

Marine Protected Area

- Number of MPAs gazetted: 31
- Total coverage of MPAs: 22,819 sq.km
- Target of MPA coverage by 2030: an increase by 5%
- MPA categories and coverage:
 - ✓ MPA: 20 ; total coverage: 20,783.32 sq.km (Note: 1 MPA has no area data)
 - ✓ LMMA: 104 ; total coverage: 2,035.79 sq.km (Note: 51 LMMAs have no area data)
- 2 sites nominated for IUCN Green List Standards: potential sites for nomination are the Murat and Lovongai MPAs in New Ireland Province
- Site(s) nominated for MPA of Excellence/Learning Site: potential sites for nomination are the Bootless Bay National Marine Sanctuary and the Murat MPA
- Sustainable financing mechanism applied: Biodiversity and Climate Fund (BCF) grants for protected areas

Marine Protected Area

- Activities organized/attended related to MPA:
 - METT Assessment for four MPAs
 - CT Atlas Training during the MEWG Meeting in Port Moresby
 - 10th MPA REX in Manado, Indonesia
 - FPIC consultations for proposed Kimbe Bay National Marine Sanctuary
 - Launching of Murat MPA in New Ireland Province
 - Blue Economy Opportunities for LMMAs in Milne Bay Province
- Technological advancement: plans to trial out drones for surveillance and monitoring in place with an NGO partner, the Marinas Guardian
- Youth involvement (if any):
 - University student volunteers that assist MPA team in coastal cleanups and awareness programs
 - Participation of youths in local communities in LMMA/MPA work
 - Youths participated in the recent FPIC consultations
- Corporate involvement (if any): corporate entities mainly participated in coastal cleanups and mangrove planting activities

Marine Protected Area

- Challenges:
 - Appropriate legislations and accompanying regulations
 - Effective Enforcement
 - Establishment of a National Ranger Program
 - Constant Monitoring and Evaluation of activities within MPAs
 - Workable livelihood options
 - Rapid coastal developments adjacent or within MPAs
 - Landowner and/or land rights issues

Climate Change Adaptation

1. Existing vulnerability studies:

- Most vulnerability studies are not programmatic but project based. So Vulnerability studies are done as part of project implementation at the specific project sites and not province wide.
- However, 5 provincial vulnerability studies and adaptation plans have been developed under the Building Resilience to Climate Change Project.
- Risk profiling have been done for another 5 provinces under a Adaptation Fund Project

2. Relevant regulations for CCA:

- No specific regulation for CCA but Carbon market regulations have been developed and endorsed by Parliament
- National Adaptation Plan (NAP) developed and endorsed. Currently being implemented.

3. Activities organized/attended related to CCA:

- Attended CCA and gender training in Indonesia
- Attended CCA COP29 Meetings
- Attended CCA training in Seoul, Korea,
- Attended Regional Workshop on Unlocking Blue Pacific Prosperity and Co-design Blue Pacific and CCA Project, Fiji
- Organised CCDA Adaptation Technical Working Group Meeting
- Organised Blue Carbon Policy Writeshop

Seascapes

- Any bilateral/regional agreement with other country(ies) related to marine management:
 - Bismarck Solomon Sea Ecoregion (BSSE)
 - Arafura Timo Seas Ecosystem Action Program (ATSEA)- Regional partnership with Indonesia, Timor Leste & PNG with support of the Australian Gov.
 - Torres Strait Treaty- bilateral partnership between Australia & PNG

Threatened Species

- Updated list (2024) of threatened species in the country sorted by IUCN categories

Major taxa	Critically Endangered (CE)	Endangered (EN)	Vulnerable (VU)	Totals
Marine Mammals	1	2	2	5
Marine Turtles	3	1	2	6
Sharks	1	4	18	23
Rays	2	2	15	19
Chimaera	0	0	1	1
Corals	1	8	135	144
Mangroves	2	0	2	4
Marine Fishes			61	61
Seabirds	1	1	3	5
Total	11	18	239	268

The **CEPA Marine Threatened Species** plan was developed in 2020 to monitor and track the status of marine species in the Maritime Provinces of Papua New Guinea. The initiative aims to ensure the protection of vulnerable marine species through consistent monitoring and conservation efforts.

The database includes 268 threatened species, covering a range of marine life, such as marine mammals, marine turtles, sharks, rays, chimaeras, corals, mangroves, marine fishes, and seabirds.

NATIONAL PLAN OF ACTION (NPOA) FOR TURTLES

The Papua New Guinea National Plan of Action for Marine Turtles (NPOA) 2024-2030 has been developed to address threats to turtles and enhance conservation efforts. This six-year plan reflects the government's commitment to the conservation, management, and protection of marine turtles. Aligned with the CBD's COP 15 and the Kunming-Montreal Global Biodiversity Framework targets, the NPOA aims to ensure the survival of all marine turtle species in the country. It envisions protecting, managing, and sustainably utilizing marine turtles for the benefit of Papua New Guinea's people.



TIMEFRAME

2024

- Review and Consultation Phase

2025

- Launch of the NPOA for Turtles on the 10th of February

ACCOMPLISHMENTS

The Southern region consultations, covering Madang, New Ireland, and Manus provinces, have been completed. These consultations were held in conjunction with the WWF Turtle Use Survey Report presentation to local communities. The events were made possible through the support and funding provided by WWF.

Marine Turtles



Papua New Guinea:

- Assisted in **NPOA** drafting (Dec 2024) and consulting (Aug–Sep 2024).
- **Turtle Use Project:** Partnered with SPREP to understand the cultural, social, and economic value of marine turtles, the first country to implement this initiative, with community feedback provided in Aug–Sep 2024 (joint WWF and CEPA efforts)
- **Nesting Monitoring:** The new Pomio office reported either nesting and/or foraging activity for five turtle species, including leatherbacks; with turtle track monitoring ongoing from April 2024 (to April 2025 to determine peak season), expecting leatherback, green and hawksbill nesting, Nov 2024 – Feb 2025.
- **Community & Training:** Collaborated with four turtle communities, initial training for eight trainers and monitors in nesting season support and field techniques, comprehensive training proposed early 2025.



MARINE TURTLE PUBLIC CAMPAIGN AWARENESS IN PNG

This is a 3-year project focused on five provinces: Manus, Western, Milne Bay, Central, and NCD. These provinces were chosen due to high levels of unsustainable harvesting and selling of marine turtles.

TIMELINE OF THE PROJECT

2024

- Designing awareness messages for different target audiences and selecting media channels.

2025

- Public awareness campaign will be implemented in the five target provinces, using various media platforms to reach other maritime areas.

2026

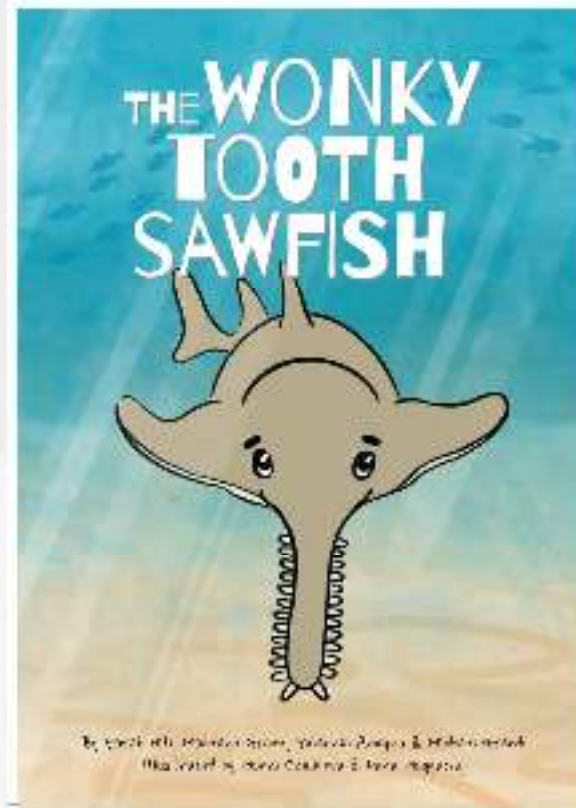
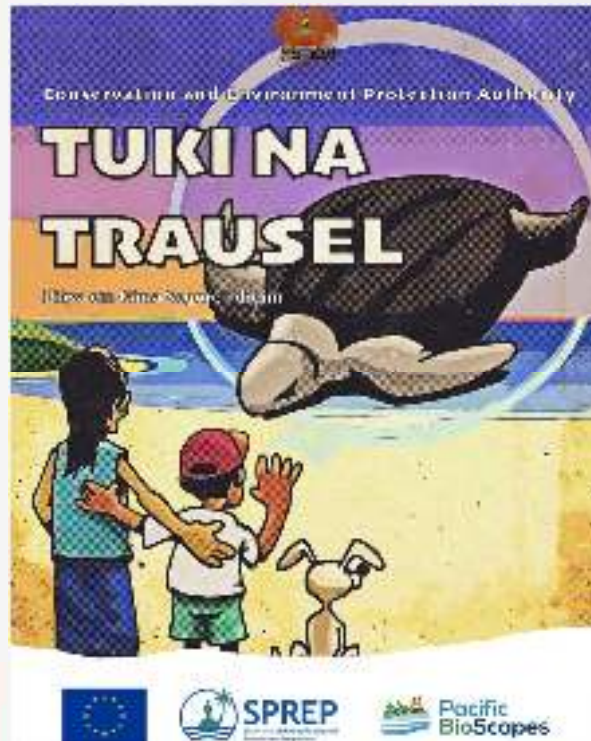
- Conduct monitoring and evaluation (M&E) to assess the campaign's impact in the target provinces.

ACCOMPLISHMENT

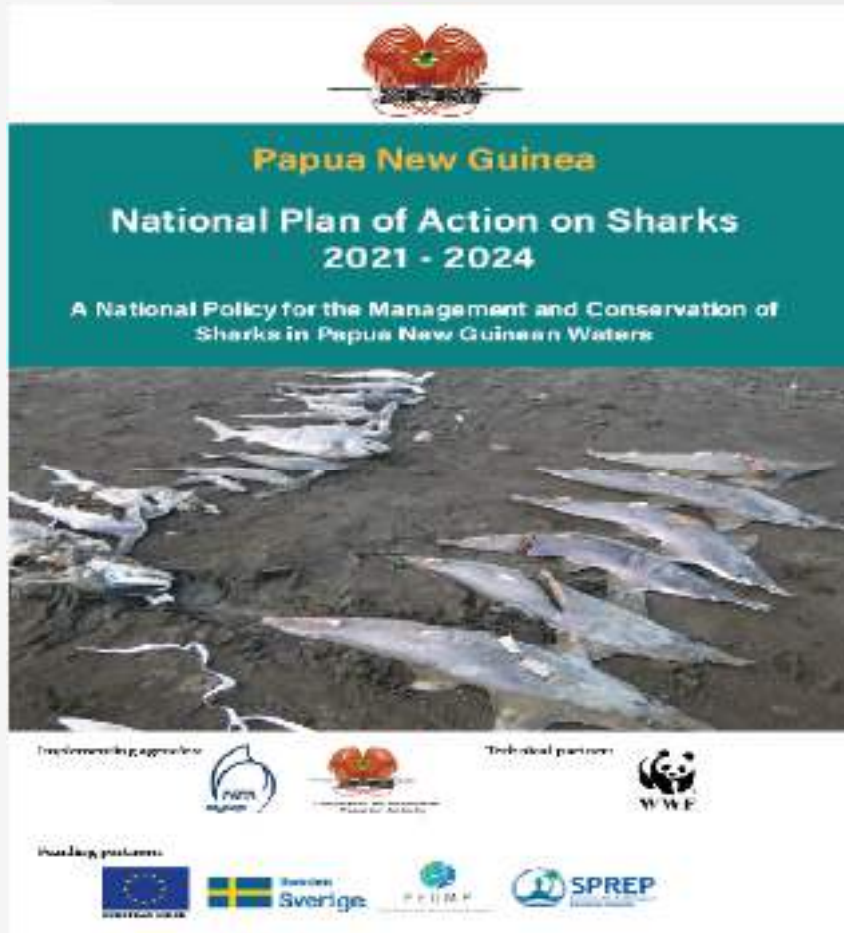
- **Report on Legislative Review of Marine Turtles in PNG has been accepted and approved by SPREP through this project.**
- **The project includes the production of various awareness products such as posters, pamphlets, comic book, in-flight magazine articles, resource guides on marine turtles, and scripts for television and radio ads addressing key issues surrounding marine turtles.**

Communication Materials Published

- The Turtle comic – PNG Pidgin version “Tuki na Trausel” was launched on the 8th of June 2024. The comic was done in collaboration with SPREP under the Pacific BioScapes Programme
- The PNG’s Freshwater Turtles/Sawfish books was developed by our friends from the Piku Biodiversity Network
- We also in production of producing more Threatened species comics and story books

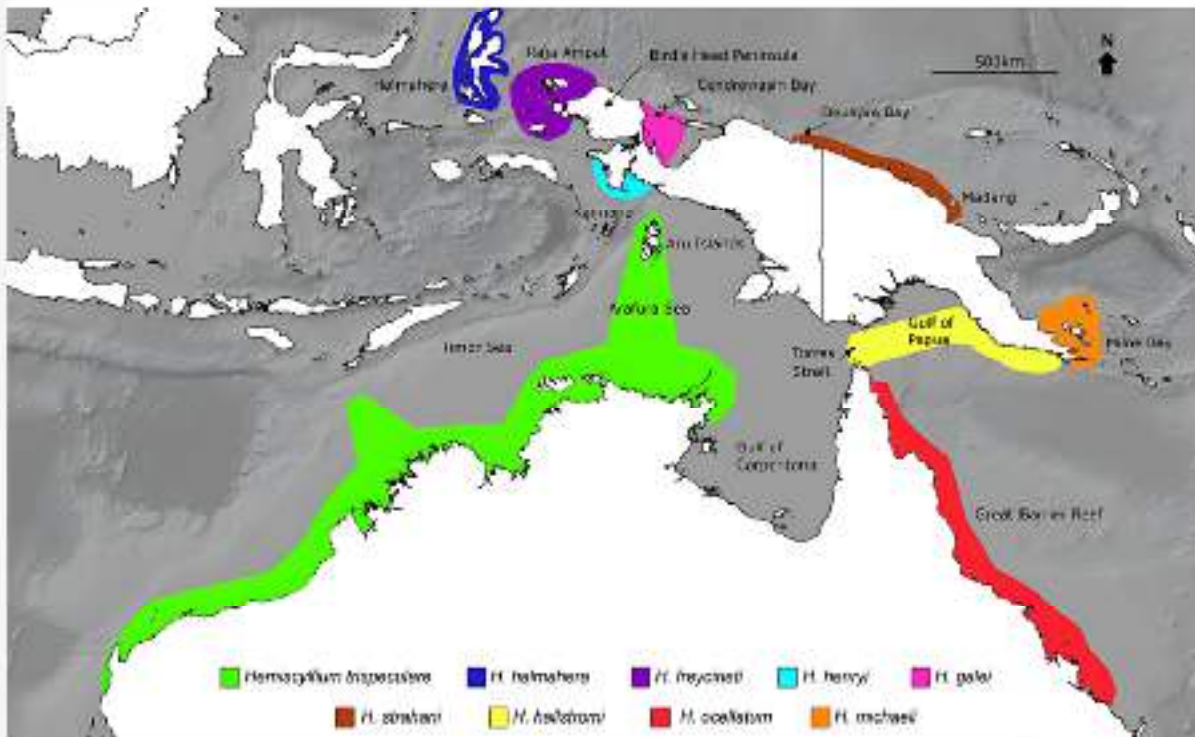


NATIONAL PLAN OF ACTION FOR SHARKS



The **National Plan of Action for Sharks 2021-2024** has expired and is currently under review for the next year due to the need for updated strategies and actions to address emerging issues in shark conservation and management. This review will assess the effectiveness of the previous plan and consider new scientific data, conservation priorities, and stakeholder input to ensure continued protection and sustainable management of shark populations.

WALKING SHARKS OF PAPUA NEW GUINEA



The project is conducted by PhD Student Ms Jess Blakeway with collaborations with CEPA, UPNG and Conflict Islands Conservation Initiative in Milne Bay Province.

The distribution of walking sharks has been influenced by historical geographical events, such as ocean level changes and island movements. These sharks are found only in the coastal waters of Northern Australia, New Guinea, and surrounding islands. They are typically associated with coral reefs, seagrass beds, and mangroves, inhabiting depths of up to 30 meters.

THREATENED SPECIES NATIONAL CONSERVATION PLAN



Threatened Species
National Conservation Plan
(Pending-subject to support)

Threatened Species

Challenges

- 1. Lack of Resources and Funding:** Conservation efforts often struggle due to limited financial and human resources. This makes it difficult to implement effective monitoring, research, and protection programs for threatened species.
- 2. Illegal Wildlife Trade:** PNG faces challenges with illegal hunting and the trade of wildlife, including threatened species, both domestically and internationally. This contributes to the decline of vulnerable species.
- 3. Limited Awareness and Education:** There is often a lack of awareness among local communities and stakeholders about the importance of protecting threatened species, which hinders conservation efforts. Educational programs and community engagement are needed but are often underfunded or insufficient.
- 4. Climate Change:** Rising sea levels, changing weather patterns, and other climate-related factors are impacting ecosystems and species, particularly marine and coastal species like sea turtles and coral reefs, which are critical to PNG's biodiversity.
- 5. Weak Enforcement of Regulations:** Despite the presence of conservation laws, enforcement can be inconsistent. This is due to a lack of capacity to undertake enforcement and the remoteness of certain areas, making it difficult to regulate and protect wildlife effectively.

An underwater photograph showing a large school of small, dark fish swimming in the blue water on the left. On the right, there is a diverse coral reef with various species of coral and sponges in shades of brown, red, and green. The text 'Story from the Field' is overlaid in white at the bottom left.

Story from the Field

Story from the Field



An underwater photograph of a coral reef. The scene is dominated by a large, flat, brownish-orange coral structure in the center. Below it, there are several large, white, textured coral pieces. The background is a deep blue, with many small fish swimming in the water. The overall lighting is dim, typical of an underwater environment.

thank you

COUNTRY REPORT - [NAME OF THE COUNTRY]

SUM19