

Hanifaru Marine Protected Area Conservation Action Plan , Baa Atoll, Maldives 2025 to 2030

Executive Summary



Ministry
of Tourism
& Environment



**UK International
Development**

Partnership | Progress | Prosperity

VESSEL MOVEMENT HANIFARU MARINE PROTECTED AREA



7905949
INFORM RANGER HOTLINE
PRIOR TO ARRIVAL



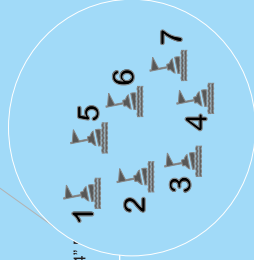
VISITOR DROP OFF BUOY



HANIFARU ISLAND BUOY



VESSEL MOORING BUOYS
1 RANGER USE 3 to 6 VISITORS
7 PERMIT HOLDERS



02 mph
MAXIMUM SPEED LIMIT



ENTRY / EXIT ROUTE



WAITING AREA
3 VESSELS MAX.



BAA ATOLL
UNESCO
BIOSPHERE
RESERVE

#mybtrnographics

“Maldives is a nation with a long history of living in harmony with nature. Our environment and biodiversity remain the foundation of our economy, socio-economic development, and well-being. Baa Atoll UNESCO Biosphere Reserve epitomizes this connection.”

“Since its designation as a UNESCO Biosphere Reserve, the Reserve has not only been a source of pride for the people of the atoll but has also been a key driver of socio-economic development.

It is then imperative that we not only better understand the environmental and ecological conditions in the Reserve, but also enhance our efforts towards protection, conservation, and sustainable development.”

THORIQ IBRAHIM

**MINISTER OF TOURISM
& ENVIRONMENT**

The Hanifaru Marine Protected Area serves as a cornerstone of the Baa Atoll UNESCO Biosphere Reserve.

The unique oceanographic conditions within Hanifaru Bay create an ideal habitat that supports critical feeding aggregations of reef manta rays and whale sharks, attracting thousands of visitors annually who seek to experience this natural wonder.

This site is the first marine protected area in Maldives with a management plan and has provided an example for the rest of Maldives.

Despite this, Hanifaru MPA faces numerous challenges, including illegal fishing, habitat degradation, and climate change impacts.

This document addresses these threats through a comprehensive framework that emphasizes sustainable practices and stakeholder engagement.

The vision is clear: by 2030, we aim to see thriving populations of manta rays and whale sharks coexisting harmoniously with local communities, by focusing on enhancing visitor awareness, ensuring equitable participation in decision-making processes, and implementing sustainable governance strategies.

This document outlines our commitment to preserving one of the world's most vital marine ecosystems supporting significant populations of reef manta rays and whale sharks.

Together, we can safeguard the future of Hanifaru MPA, ensuring that it remains a source of pride and ecological wealth for generations to come.

THORIQ IBRAHIM

**MINISTER OF TOURISM
& ENVIRONMENT**



1. Introduction

Hanifaru Marine Protected Area (MPA) was designated in 2009 under the Protection and Preservation of Baa Atoll Hanifaru Marine Protected Area (Regulation 2012/R-23) which makes provisions for the management of Hanifaru MPA. It makes up one of the core areas of the Baa Atoll UNESCO Biosphere Reserve.

The MPA was established to protect Hanifaru Bay and the megafauna that rely on the site, specifically the seasonal feeding aggregations of reef manta ray (*Mobula alfredi*) and whale shark (*Rhincodon typus*).

The Hanifaru MPA Conservation Action Plan is an accompanying document to Regulation 2012/R-23. It sets out ways to ensure effective management of the MPA over the next 5 years. It covers the period 2025 – 2030 inclusive.

It has been informed by a Protected Area Management Effectiveness (PAME) evaluation that was conducted in 2022 and a series of meetings and workshops held in 2023 to ascertain the views, opinions and priorities of stakeholders.

The outcomes of these highlighted progress to date and identified actions to improve management of the Hanifaru MPA over the next 5 years.

2. Key values of the MPA

1 **AGGREGATIONS OF MANTA RAYS AND WHALE SHARKS**

Hanifaru Bay is a globally significant site for reef manta rays with up to 1,500 individuals visiting the site seasonally, to feed and breed.

It also attracts aggregations of whale sharks during the southwest monsoon, primarily to feed.

2 **UNIQUE OCEANOGRAPHIC & ECOLOGICAL PROCESSES**

Hanifaru MPA has a unique geographical position in Maldives. The southwest monsoonal currents move deep nutrient rich water towards the surface where they create a plankton bloom.

This bloom is confined within Hanifaru Bay, creating a funnelling phenomenon which in turn attracts the aggregations of reef manta rays and whale sharks.

3 **ECONOMIC VALUE ASSOCIATED WITH TOURISM**

Hanifaru Bay has gained an international reputation as one of the best places in the world to experience swimming with manta rays and whale sharks. As a result, marine tourism has increased in popularity over the last decade.

It was estimated that Hanifaru MPA generated an annual revenue of US\$241,000 in 2006–2008.

3. Threats to the MPA

The Regulation for the Protection and Preservation of Baa Atoll Hanifaru Area (2012/R-23) and subsequent amendments provide a comprehensive framework for the management of human activities within Hanifaru MPA.

Despite this, some threats to the marine environment and its biodiversity remain.

1. DEVELOPMENT ACTIVITIES AROUND MPA:

Land reclamation and other construction activities related to tourism developments has resulted in vegetation loss and habitat degradation; there is also shoreline erosion on many of the islands.

2. ILLEGAL FISHING:

The taking of any living organisms from the core area of the MPA is prohibited. Illegal fishing still occurs, however; in particular, illegal bait fishing (for anchovies and sprats) within Hanifaru Bay was identified as a threat by stakeholders.

3. BOAT TRAFFIC IN & AROUND THE MPA:

Most manta-tourist interactions only complied to recommended guidelines 44% of the time¹.

Most do not cause a response from the manta rays, however the more intrusive behaviours (for example, intentional touching/obstructing and chasing manta rays) cause a flight response.

¹ Murray, A., Garrud, E., Ender, I., Lee-Brooks, K., Atkins, R., Lynam, R., Arnold, K., Roberts, C., Hawkins, J. and Stevens, G. (2020). Protecting the million-dollar mantas; creating an evidence-based code of conduct for manta ray tourism interactions. Journal of Ecotourism 19: 132–147.



Photo by: Biosphere Reserve Office

Manta rays will abandon feeding if visitors come too close or obstruct their path. Reduced food intake is likely to reduce fecundity and offspring survivorship.

Boat traffic can also cause direct impacts and one third of reef manta rays recorded in Baa Atoll had injuries².

4. WASTE & PLASTIC POLLUTION:

Stakeholders identified waste and plastic pollution from boats and nearby islands as a key impact to the MPA.

Surveys have also found that some resorts release nutrients, sediments and chemical pollutants into the near-shore environment³.

5. CLIMATE CHANGE:

Climate change poses an unknown risk to Hanifaru MPA. Climate change has been found to influence primary production throughout the Indian Ocean.

As a result, manta rays and whale sharks are vulnerable to the impacts of climate change through a reduction in food availability.

² Manta Trust (2019). Maldivian Manta Ray Project. Baa Atoll Annual Report 2019, 29pp. Available: MT_MMRP_Annual+Report_Baa+Atoll_2019_FINAL.pdf (squarespace.com)

³ Cowburn, B., Moritz, C., Birrell, C., Grimsditch, G. and Abdulla, A. (2018). Can luxury and environmental sustainability co-exist? Assessing the environmental impact of resort tourism on coral reefs in the Maldives. *Ocean & Coastal Management*, 158: 120–127.

4. Governance of the MPA

Regulation 2012/R-23 makes provisions for the management of Hanifaru MPA.

The site is administered and managed by the Baa Atoll Biosphere Reserve Office and overseen by the Environmental Protection Agency (EPA).

HANIFARU MPA IS ZONED INTO 2 AREAS:

ZONE 01

Core Area

These are areas requiring significant level of protection.

Activities that can be permitted in this area shall only be those that would not harm the environment or life forms in the area in any manner or form.

ZONE 02

Buffer Zone

These are areas surrounding or connected to the core areas.

Certain activities permitted by the authorities can be carried out in this area.

ZONE 03

Transitional Areas

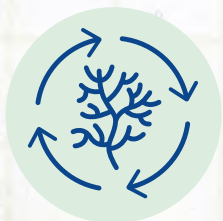
Multiple use areas where sustainable activities are allowed.

Management of Hanifaru MPA will be guided by the following management principles:



1. CLIMATE CHANGE:

The ecological and economic values of the MPA are vulnerable to climate change, however the risk is still unknown. Actions will focus on undertaking monitoring and research to identify the predicted impacts of climate change on whale sharks, manta rays and their supporting environment to inform the development of adaptation strategies as part of the adaptive management framework.



2. ECOSYSTEM APPROACH:

The ecosystem approach will be applied by ensuring that management of the MPA considers the ecological, social, cultural and economic values that make the site unique.



3. ADAPTIVE & EVIDENCE -BASED MANAGEMENT:

The Biosphere Reserve Office will base all management decisions in relation to Hanifaru MPA on the best available information and any knowledge gaps will be addressed through the monitoring and the adaptive management process.



4. PRECAUTIONARY PRINCIPLE:

Where evidence is inconclusive, the Biosphere Reserve Office will make best efforts to fill evidence gaps while also applying practical and proportionate precaution within a risk-based approach.



5. SUSTAINABLE DEVELOPMENT:

Any activities within Hanifaru MPA must have minimal impact on the marine environment and the biodiversity it supports, and must bring positive social, cultural, and economic benefits.



6. STAKEHOLDER & COLLABORATIVE ENGAGEMENT:

The strength and effectiveness of management within Hanifaru MPA depends on those that use the site to comply with the guidance and regulations. Collaboration with local stakeholders, communities, resorts and NGOs will be maintained and developed.



7. EQUITABLE MANAGEMENT:

Inclusion and the equitable distribution of knowledge and resources is imperative to the management of Hanifaru MPA.

To ensure integrity, effective communication will be central to decisions, ensuring all stakeholders and members of the local communities including women, youth and disadvantaged groups have equal voices during any decision-making processes.

MPA Conservation Action Plan Vision

Globally significant populations of manta ray and whale shark of Baa Atoll are thriving, effectively protected and living in harmony with local communities.

Marine biodiversity is a source of pride, research, income and passion for the Maldives.



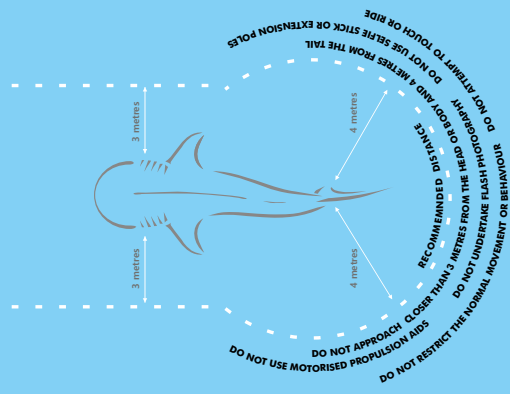
Photo by: Biosphere Reserve Office

SWIMMER INTERACTION WITH MANTA RAYS



ALL RAY SPECIES (INCLUDING BOTH SPECIES OF MANTAS) ARE PROTECTED IN THE MALDIVES, under the Environment Protection and Preservation Act (Act 4/94)

SWIMMER INTERACTION WITH WHALE SHARKS



ALL SHARK SPECIES (INCLUDING WHALE SHARKS) ARE PROTECTED IN THE MALDIVES, under the Fisheries Act (Act 14/2019)

45 minutes

MAX. WATER TIME
45 minutes

NO TOUCHING OR
CHASING OF MARINE LIFE

NO ENTRY
6.00 pm to 6.00 am

NO
LITTERING

NO OPEN FIRE
SPECIFIC

7905949

RANGER
HOTLINE
REPORT
VIOLATIONS

1:10

TOUR GUIDE / GUEST RATIO
CALM/MODERATE CONDITIONS

NO ANCHORING

CLOSED 24 HOURS
ON 1st of RAMADAN

NO
MOTORIZED VESSELS

MAX. VISITORS 10
HANIFARU ISLAND SPECIFIC



03

WAITING AREA
3 Vessels Max.

NO UNMANNED REMOTE
CONTROLLED AIRCRAFTS / DRONES

CLOSED 24 HOURS
ON ALL HAJI DAYS

YELLOW FLAG
BAY AT FULL CAPACITY
SAFE WATERS

USE MOORING BOUYS

07

MOORING AREA
7 Vessels Max.

NO
SCUBA DIVING

NO ENTRY
ALL FRIDAYS / 12 to 2 pm

RED FLAG
STRONG CURRENTS
DO NOT ASSURE SAFE WATERS

NO LOUD NOISE

02 mph

NO WAKE ZONE
Maximum Speed Limit

FOLLOW SCHEDULE
(USE ALTERNATIVE DAYS)

NO FLASH
PHOTOGRAPHY

GREEN FLAG
CALM/MODERATE CONDITIONS
ABSENCE OF FLAGS

RESEARCH PERMIT
Mandatory Requirement

1:5

ACCESS PERMIT
Mandatory Requirement

TOUR GUIDE / GUEST RATIO
ROUGH CONDITIONS

NO UNAUTHORIZED
PHOTOGRAPHY OR FILMING

NO COLLECTING
DEAD OR ALIVE MARINE LIFE

NO MANNED / UNMANNED
MOTORIZED / UNMOTORIZED
UNDERWATER VEHICLE OR
DIVING EQUIPMENTS

EPA CERTIFIED GUIDE
Mandatory Requirement

MAX. SNORKELLERS
80 pax

NO SELFIE STICKS OR
EXTENSION POLES

NO FISHING OR
FISH FEEDING

NO UNMANNED REMOTE
CONTROLLED AIRCRAFTS / DRONES

NO UNMANNED REMOTE
CONTROLLED AIRCRAFTS / DRONES

CODE OF CONDUCT HANIFARU MARINE PROTECTED AREA

Hanifaru Marine Protected Area comprises of hanifaru bay, hanifaru island together with hanifaru reef extending to a buffer area of 200m. The area was declared protected on 5 June 2009 under the Environment Protection and Preservation Act (Act No:4/93)



BAA ATOLL
UNESCO
BIOSPHERE
RESERVE

MPA Conservation Action Plan Objectives and Actions

To achieve this long-term vision, a number of different management actions are proposed under a series of objectives:

OBJECTIVE 1: By 2030, the population size and distribution of manta rays and whale sharks is maintained at current levels or has increased.

1.1 Develop and implement a long-term monitoring programme that ensures a collaborative approach with stakeholders and external scientists to understand manta and whale shark populations in the context of environmental parameters and human pressures.

1.4 Identify the potential risks of current and predicted impacts of climate change on whale sharks, manta rays and their supporting environment.

1.2 Ensure that all data collection and monitoring activities are aligned with the requirements of the national species-specific Management Plans.

1.5 Assess anthropogenic pressures on whale sharks and manta rays outside of the MPA (and suggest mitigation measures to protect migration corridors as appropriate).

1.3 Ensure that all data collected from monitoring activities is utilised, reported and used to inform adaptive management.

1.6 Review regulations for waste management in Hanifaru Area and local islands and resorts.

OBJECTIVE 2: By 2030, visitor awareness and understanding of manta rays and whale sharks has improved as a result of the education programme.

2.1 Improve the dissemination of awareness raising materials for visitors about the purpose and rules of the MPA (e.g., interpretations boards at important visitor locations, leaflets, videos etc)

2.2 Establish a visitor centre.

OBJECTIVE 3: By 2030, Baa Atoll communities have increased benefits through equitable participation in management decision-making and improved livelihoods.

3.1 Each island to nominate and support an 'Environmental Champion' to advocate environmental issues and information about the MPA within their community.

3.4 Ensure that the results of scientific monitoring & research and management decisions are effectively shared with local communities and fed into national-level reporting.

3.2 Undertake a public engagement campaign to increase levels of knowledge and interest in the MPA amongst the local community using innovative, accessible, equitable and participatory approaches.

3.5 Re-establish an Advisory Committee with representation from all stakeholders and sectors, with processes in place to ensure effective engagement with and equitable participation from all stakeholders, to support the implementation and review of the Management Plan.

3.3 Work with local education establishments to develop educational activities and materials to improve local children's understanding and appreciation for their marine environment and the MPA and support routes into conservation careers.

3.6 Review the effectiveness of the Baa Atoll Conservation Fund and its benefit-sharing mechanisms and implement improvements to ensure equitable sharing of benefits amongst all stakeholders.

3.7 Undertake community surveys to understand social, cultural and economic benefits for the local community, perceptions of the MPA and how benefits are shared. Use the results to investigate opportunities for diversification of income for local communities.

OBJECTIVE 4: By 2030, appropriate strategies and processes are in place to ensure the sustainable and effective governance and management of the MPA.

4.1 Develop a business plan for the MPA based on an assessment of costs versus income (including consideration of increased entry fees) and publish annual financial accounts.

4.6 Undertake staff training needs assessment and ensure regular refresher training for all staff. Complete risk assessments for all staff working at sea.

4.2 Develop annual operational plans to effectively implement the MPA management plan actions that enables participation by and ensures sharing with the community.

4.7 Purchase necessary equipment for monitoring and enforcement activities. Ensure all equipment is well maintained.

4.3 Ensure that the Management Plan is reviewed on an annual basis with a comprehensive review every five years, incorporates monitoring and research finding, and includes local knowledge and stakeholder input across all social groups, with comprehensive and logical outputs.

4.8 Revise existing legislation to improve management and enforcement of human activities in Hanifaru MPA.

4.4 Develop and implement a communications strategy to raise the profile of Hanifaru MPA for all relevant stakeholders and social groups, and share MPA management outputs.

4.9 Adopt an Intelligence-Led Risk-Based Enforcement approach to ensure that available resource is used as efficiently and as effectively as possible.

4.5 Reinstate the Baa Atoll Biosphere Reserve website and develop a Hanifaru MPA section to host key information and documents related to the MPA that are accessible to all stakeholders.

4.10 Develop and publish guidelines and standard operating procedures for the enforcement approach.

OBJECTIVE 5: By 2030, all visitor interactions in Hanifaru will be high quality, safe, and sustainable.

5.1 Review the impacts on key species caused by an increase in tourism and use the results to revise management measures.

5.4 Recruit additional staff and increase the number of patrols during peak season (*July–September*) to monitor visitor permits and ensure compliance.

Establish satellite ranger posts on Dharavandhoo or Dhonfanu.

Raise awareness of the penalties for non-compliance amongst visitors.

5.2 Review the role and responsibilities of the resorts, guesthouses, tour guides and rangers in ensuring that visitors comply with MPA rules.

5.5 Provide training to enhance the knowledge and capabilities of tour guides to provide visitors with a high quality and safe experience.

5.3 Complete a monthly report on the management of Hanifaru MPA which is available to all resorts.

5.6 Develop an Emergency Response plan for visitors snorkelling in the MPA.

Include a summary of the code of conduct and safety updates.

Monitoring and Review

Annual reviews will be conducted by staff within the Baa Atoll Biosphere Reserve Office in collaboration with key stakeholders.

The MPA Conservation Action Plan will undergo a comprehensive review and PAME evaluation every five years.

This will be completed through a consultation process with stakeholders and other interested parties.



Photo by: Biosphere Reserve Office

The background of the cover is a deep blue color with a faint, textured pattern of coral reefs. In the lower right quadrant, there is a circular inset image showing a close-up of a coral reef with various polyps and structures.

Hanifaru Marine Protected Area Conservation Action Plan , Baa Atoll, Maldives 2025 to 2030

Executive Summary