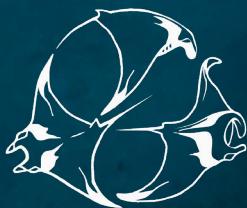


# CONSERVING MANTA & DEVIL RAYS

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The MMCP Five-Year Plan

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**MALDIVES MANTA**  
CONSERVATION  
PROGRAMME

# CONSERVING MANTA & DEVIL RAYS

## The MMCP Five-Year Plan

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# INTRODUCTION

The Maldives Manta Conservation Programme (formerly the Maldivian Manta Ray Project) was established in 2005 and was the founding project of the [Manta Trust](#). Since its inception, it has grown into one of the largest and longest-running manta ray research projects in the world. Scientific data collected by the Maldives Manta Conservation Programme (MMCP) has aided the declaration of Hanifaru Bay as a Marine Protected Area, the designation of two UNESCO World Biosphere Reserves in the Maldives (Fuvahmulah Atoll and Addu Atoll), the creation of 'Best Practice Guidelines for Shark & Ray Tourism' and has contributed to successful proposals to gain international protective legislation for manta and devil rays. The MMCP has launched a multimedia initiative to support sustainable manta tourism and established a long running education programme that connects Maldivian children to the ocean and marine conservation.

In 2022 MMCP was registered as a Maldivian NGO and now works towards its vision under the guidance of a fully Maldivian board, with external

guidance from the Manta Trust.

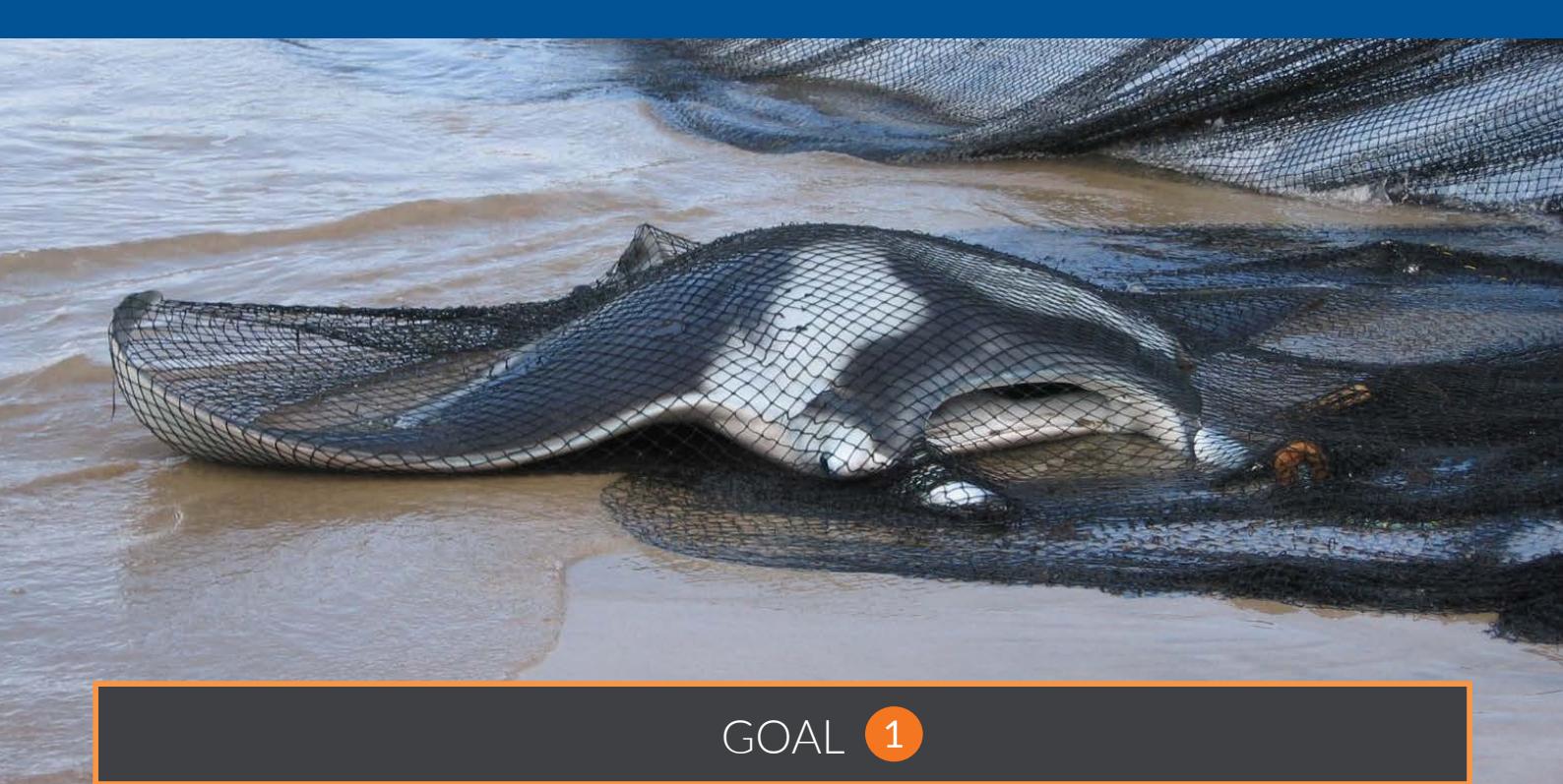
**Our vision is a sustainable future for Maldivians and their natural resources, where manta rays and their relatives thrive in healthy diverse marine ecosystems.**

This Five-Year Plan defines our three key conservation goals which are supported by our governance aims, also outlined in this document. This document will underpin our approach to everything, from recruitment to funding allocation to project management. It will help us to make fast, strategic decisions that best serve our mission and it will enable us to better monitor and report on progress. The Five-Year Plan will be a flexible document that is reviewed annually and adapted as necessary based on our empirical findings and data collected.

**Our mission is to drive the policies and practices necessary to conserve the Maldives' manta rays, their relatives and habitats through research, education and collaboration.**

# GOALS

A large manta ray is the central focus, swimming gracefully over a vibrant coral reef. The water is clear and blue, with sunlight filtering down from the surface. The ray's dark body contrasts with its white mouth and the white tips of its pectoral fins. The coral reef below is a mix of green and brown, with various small fish swimming around.



## GOAL 1

The threat to manta and devil rays by fisheries is reduced.

Overfishing is the greatest threat to manta and devil rays (mobulids) globally. These vulnerable species are targeted for their gill plates, which are used in medicinal health tonics, and for their meat, which is consumed in at least 35 countries. They are also caught incidentally as bycatch, by commercial and artisanal fisheries using non-selective gear and operating with insufficient spatial and temporal restrictions. A recent study by the Manta Trust estimates that around 265,000 individual manta and devil rays are killed by fisheries each year.

In the Maldives, however, all ray species are protected by law, and it is illegal to capture, keep or harm any type of ray. The export of all ray products was banned in 1995, and all ray species, including manta and devil rays, were added to the Maldivian National Protected Species List in 2014. As a result, targeted or incidental capture of mobulids within Maldivian waters is extremely rare, offering a valuable opportunity to study these animals in a more natural environment. These insights contribute towards global conservation efforts by informing policy decisions in regions where mobulid populations are under far greater pressure.

That said, some of the more wide ranging, pelagic mobulid species that visit Maldivian waters remain vulnerable, as they frequently travel beyond the country's protected boundaries. Additionally, while not a major concern compared to global threats, preliminary studies suggest that certain artisanal fishing practices within the Maldives may still cause sublethal and lethal injuries to mobulids through occasional incidental catch.

Over the next five years, we will deepen our understanding of how both local and international fisheries impact the mobulid populations that use Maldivian waters. We will work closely with local communities to reduce any risk of bycatch within the Maldives and gather essential data to support global efforts to mitigate overfishing and protect these animals.

PLANNED WORK >	INTENDED RESULTS >	
ACTIONS >	OBJECTIVES >	STRATEGIC OBJECTIVES >
<ul style="list-style-type: none"> <li>1. Contribute data to a global fisheries and policy review (conducted by the Manta Trust) to identify priorities.</li> <li>2. Provide data on relevant priority knowledge gaps identified by the review.</li> </ul>	<ul style="list-style-type: none"> <li>1.1.1. We have the <b>knowledge</b> (e.g., data, political climate) to drive effective policy change at all levels (local, regional, national, international).</li> </ul>	
<ul style="list-style-type: none"> <li>1. Publish peer-reviewed articles and make them open-access.</li> </ul>	<ul style="list-style-type: none"> <li>1.1.2. Governing institutions have the required <b>knowledge and expertise</b> to implement policy changes at all levels (local, regional, national, international).</li> </ul>	<p><b>1.1</b> More protective policies exist to support manta and devil ray conservation globally.</p>
<ul style="list-style-type: none"> <li>1. Support the Manta Trust in developing and implementing advocacy strategies with partners in relevant jurisdictions.</li> </ul>	<ul style="list-style-type: none"> <li>1.1.3. There is <b>political/institutional support</b> for the establishment &amp; implementation of protective policies for manta and devil rays.</li> </ul>	
<ul style="list-style-type: none"> <li>1. Disseminate handbook and guide created by the Manta Trust.</li> <li>2. Workshop training in relevant priority areas.</li> </ul>	<ul style="list-style-type: none"> <li>1.2.1. Relevant fishers have the <b>knowledge and skills</b> to reduce the incidental catch of manta and devil ray.</li> </ul>	<p><b>1.2</b> Fishers are working towards measures to reduce any risk of manta and devil ray bycatch, injury and mortality in the Maldives.</p>
<ul style="list-style-type: none"> <li>1. Workshop training in data collection.</li> </ul>	<ul style="list-style-type: none"> <li>1.3.1. Relevant fishers are providing necessary <b>data</b> to aid policy makers.</li> </ul>	
<ul style="list-style-type: none"> <li>1. Develop and implement advocacy strategies with partners in priority areas.</li> </ul>	<ul style="list-style-type: none"> <li>1.3.2. There is <b>institutional support</b> for regulations that reduce bycatch for manta and devil rays.</li> </ul>	
<ul style="list-style-type: none"> <li>1. Contribute data to Manta Trust global fisheries and policy review.</li> <li>2. Publish peer-reviewed articles and make them open-access.</li> <li>3. Develop and implement advocacy strategies where relevant.</li> </ul>	<ul style="list-style-type: none"> <li>1.3.3. All relevant fishers, members of the public, tourism sector and governing authorities are aware and have <b>effective regulations</b> to reduce manta and devil ray bycatch.</li> </ul>	<p><b>1.3</b> Regulations and effective enforcement exist to reduce manta and devil ray capture and bycatch mortality in the Maldives.</p>
<ul style="list-style-type: none"> <li>1. Contribute data to Manta Trust global fisheries and policy review.</li> <li>2. Publish reports and peer-reviewed articles and make them open-access.</li> <li>3. Create context specific recommendations, resources and supporting activities.</li> </ul>	<ul style="list-style-type: none"> <li>1.3.4. Enforcement organisations and fishing organisations are <b>supported in enforcing regulations</b> that reduce manta and devil ray bycatch.</li> </ul>	



## GOAL 2

Manta and devil rays in the Maldives are better protected from growing human intrusion and disturbance, development, pollution, and the impacts of the climate crisis.

Manta and devil rays are intelligent, sociable, and gregarious animals, about which we still know relatively little. For example, we are yet to accurately understand their spatial and temporal movements and habitat use. However, we do know that many manta and devil ray species depend on healthy coral reefs, which are among the most threatened ecosystems in the world. To guarantee their survival in the Maldives we need to; ensure that there are robust conservation management plans in place to protect mobulids and their habitats, ensure that wildlife tourism is a force for good and does not further endanger these animals, and ensure that we have a better understanding of the impacts of pollution and the climate crisis on manta and devil rays to inform effective conservation measures in the future.

PLANNED WORK >		INTENDED RESULTS >	
ACTIONS >		OBJECTIVES >	STRATEGIC OBJECTIVES >
1. Undertake studies to define the life history parameters (e.g., fecundity) of manta and devil rays and their threats.	2. Provide the necessary data to the Maldives government to implement legislative policy for operators at key aggregation sites.	2.1.1 Government policy makers have access to the relevant and accurate <b>information and assistance</b> required to make effective protective species management plans.	<b>2.1 All manta and devil ray species in the Maldives are fully protected and conserved through species management plans.</b>
3. Work with governments to develop manta and devil ray species management plans.			
1. Undertake a study into the economic value of manta tourism activities in the Maldives.	2. Assist with the Maldives component of a short video created by the Manta Trust in multiple languages highlighting the importance of manta and devil rays.	2.1.2 Manta and devil rays have a profile in <b>management plans</b> which is relevant to their threat level and economic priority.	<b>2.1 All manta and devil ray species in the Maldives are fully protected and conserved through species management plans.</b>
3. Prepare a report for practitioners highlighting the economic value and threat level at regional level.			
1. Undertake studies to define spatial and temporal use of key aggregation sites by manta and devil rays in the Maldives.	2. Conduct a study on the impact of manta and devil ray behaviour in response to the presence of scuba divers, snorkellers and tourism vessels at key aggregation sites.	2.2.1 Government policy makers have access to the relevant and accurate <b>information and assistance</b> required to make effective <b>protective area designations</b> .	<b>2.2 Key manta and devil ray aggregation sites in the Maldives fall within protected areas that are effectively managed.</b>
3. Provide the necessary data to the Maldivian government to implement legislative policy for operators at key aggregation sites.	4. Work with governments to develop legislative policy for operators at key aggregation sites.		
1. Undertake a study into the economic value of manta tourism activities in the Maldives.	2. Assist with the Maldives component of a short video created by the Manta Trust in multiple languages highlighting the importance of manta and devil rays.	2.2.2 Manta and devil rays have a profile in <b>management plans</b> which is relevant to their threat level and economic priority.	<b>2.2 Key manta and devil ray aggregation sites in the Maldives fall within protected areas that are effectively managed.</b>
1. Assist with the Maldives component of a new website created by the Manta Trust with useful resources for operators and tourists, such as code of conduct and list of responsible operators.	2. Assist with the Maldives component of a short video created by the Manta Trust in multiple languages highlighting the scientifically backed guidelines, codes of conduct and legislation on responsible practices.	2.3.1 Operators and tourists have access to scientifically backed <b>guidelines, codes of conduct and legislation on responsible practices</b> .	<b>2.3 The majority of tourists and operators in the Maldives comply with responsible practices.</b>
1. Assist communities in the proposal and development of manta and devil ray Wildlife Heritage Areas.	2. Assist the Manta Trust with the Maldives component of creating a citizen science review and rating system for best practice for manta and devil ray tourism activities (e.g., TripAdvisor for wildlife).	2.3.2 Operators and tourists benefit from <b>complying with responsible practices</b> .	<b>2.3 The majority of tourists and operators in the Maldives comply with responsible practices.</b>

<p>1. Assess the composition and quantity of manta and devil ray prey at key aggregation sites in the Maldives.</p> <p>2. Assess changes in manta and devil ray fisheries landings and life history parameters (e.g., fecundity) in relation to large scale oceanographic cyclical events (e.g., Indian Ocean Dipole, El Nino) over time.</p>	<p>2.4.1 We know what manta and devils eat and how much they need to eat to maintain healthy populations.</p> <p>2.4.2. We have defined the key <b>life history parameters and population dynamics</b> for manta and devil rays.</p>	<p><b>2.4 The environmental drivers on manta ray populations are better understood to help determine the impact of the climate crisis and inform conservation measures.</b></p>
<p>1. Assess the areas of overlap between vessels and manta rays and categorise major vessel groups.</p> <p>2. Assess where and when manta and devil rays are becoming entangled and what they are becoming entangled in, in the Maldives.</p>	<p>2.4.3. We understand changes in manta and devil ray populations relation to large scale <b>oceanographical cyclical events</b>.</p> <p>2.5.1. Determine the <b>spatial and temporal overlaps</b> of habitat use by manta rays with <b>marine vessel</b> groups.</p> <p>2.5.2. Determine the major <b>sources of entanglement</b> in manta and devil rays.</p>	<p><b>2.5 Impact of boat strikes and entanglement in discarded fishing gear are better understood to inform necessary conservation measures.</b></p>
<p>1. Work with governments to develop manta and devil ray species management plans and legislative policy for operators at key aggregation sites.</p>	<p>2.5.3. Government policy makers have access to the relevant and accurate <b>information and assistance required to implement protective management practices</b> to mitigate these impacts from boat strikes and entanglements.</p>	
<p>1. Undertake a study to assess behavioural change in manta rays in response to marine boat traffic noise pollution in the Maldives.</p> <p>2. Conduct a study to assess the impact of light-pooling on manta ray behaviour and health in the Maldives.</p> <p>3. Provide the necessary data to the Maldivian government to implement management measures for operators at (or within close proximity to) key aggregation sites.</p>	<p>2.6.1. We understand how <b>marine boat traffic noise pollution</b> affects manta ray behaviour.</p> <p>2.6.2. We understand how <b>light pollution</b> affects manta ray behaviour and population health.</p>	<p><b>2.6 Pollution and natural system modification are better understood to inform necessary conservation measures (e.g., noise pollution, light pollution and dredging).</b></p>
<p>1. Monitor key aggregation sites pre, during, and after a period of intense dredging activity to assess changes in site use.</p> <p>2. Provide the necessary data to the Maldivian government to implement legislative policy for operators at (or within close proximity to) key aggregation sites.</p>	<p>2.6.3. We understand how <b>dredging</b> activity affects manta ray behaviour and site use.</p>	

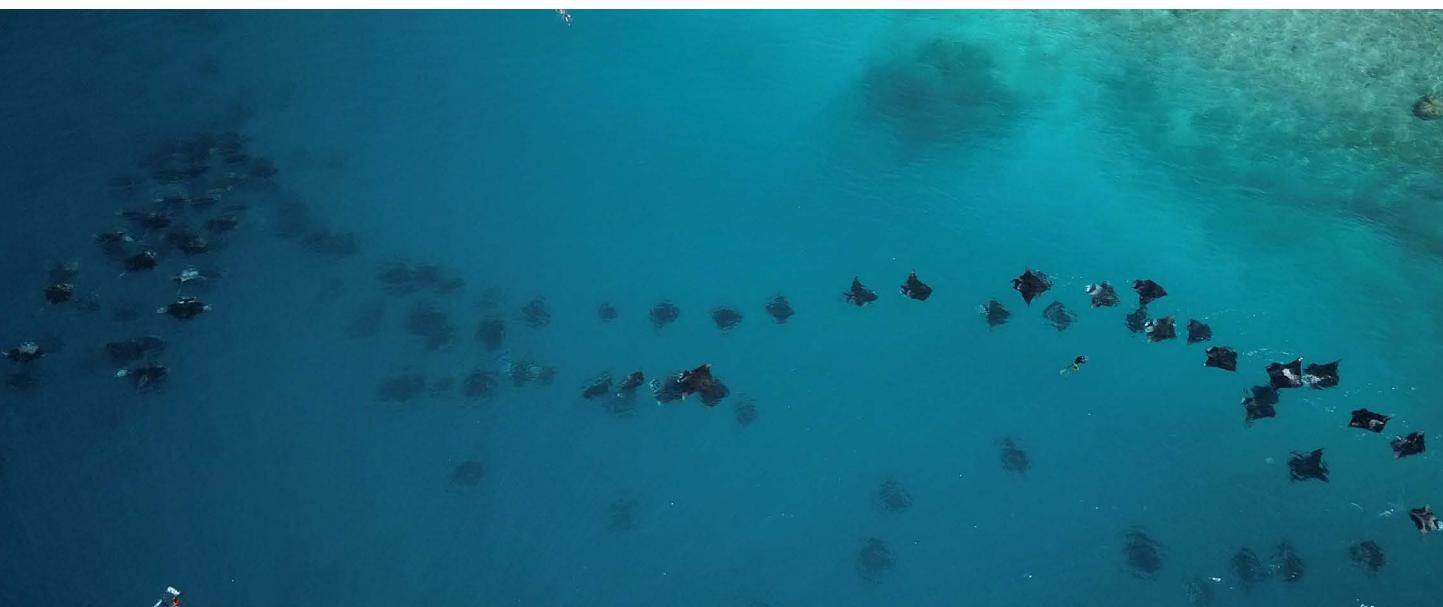


## GOAL 3

A greater number and diversity of people are taking positive action for manta and devil rays and their habitats.

The MMCP is dedicated to harnessing local knowledge and enthusiasm of potential manta and devil ray conservationists through the provision of resources, training, funding, and employment opportunities. We also need to equip those fortunate enough to interact with manta and devil rays in the Maldives with the knowledge required to minimise disturbance of these vulnerable animals, whilst creating a global network of manta and devil ray champions who will help us to undertake citizen science initiatives and conservation actions.

PLANNED WORK >		INTENDED RESULTS >	
ACTIONS >		OBJECTIVES >	STRATEGIC OBJECTIVES >
1. Assist the Manta Trust in the creation of a handbook for participatory, community informed conservation initiatives.		3.1.1 Manta and devil ray conservation initiatives in the Maldives are informed by <b>local knowledge</b> , which benefits <b>local communities</b> .	3.1 More people (a diverse range of individuals) local to manta and devil ray conservation initiatives in the Maldives play an active role in the design and implementation of these initiatives.
1. Make more local, paid, accessible internships and jobs available and attainable.		3.1.2 <b>More people</b> (a diverse range of individuals) local to manta and devil ray conservation initiatives in the Maldives are <b>recruited to work</b> on these initiatives.	
1. Register more operators with Swim with Mantas.		3.2.1 <b>Tourism boat, diver and snorkeler conduct</b> in the Maldives minimises disturbance on manta and devil rays as much as possible.	3.2 People who interact with manta and devil rays and their habitats in the Maldives are supportive of their conservation and act accordingly.
1. Engage tourists with manta and devil ray life history and threats through the Manta Trust's MantaBase platform.		3.2.2 <b>Tourists</b> in the Maldives learn about threats to manta and devil rays and their habitats, and the work of the MMCP and its collaborators.	
1. Assist the Manta Trust in the development of a handbook and toolkit for marine educational outreach.		3.3.1 <b>A greater number and diversity</b> of people from the Maldives have an <b>in-depth knowledge</b> of marine environmental issues and impacts and want to <b>work in the sector</b> .	
2. Supporting the implementation of education initiatives (training, resource development, ocean experiences).			
1. Conduct a study into what experience or skills Maldivians see as the highest priorities or motivators to enter the field of conservation, alongside what they feel are the main barriers.		3.3.2 <b>A greater number and diversity</b> of people from the Maldives have gained <b>practical experience</b> and work placements related to working in the marine conservation sector.	3.3 A greater diversity of people in the Maldives seek careers in the marine conservation sector.
2. Make more local, paid, accessible internships available using learnings from study.			
3. Assist the Manta Trust in creating a scholarship programme in practical skills (e.g., diving, attending conferences).			

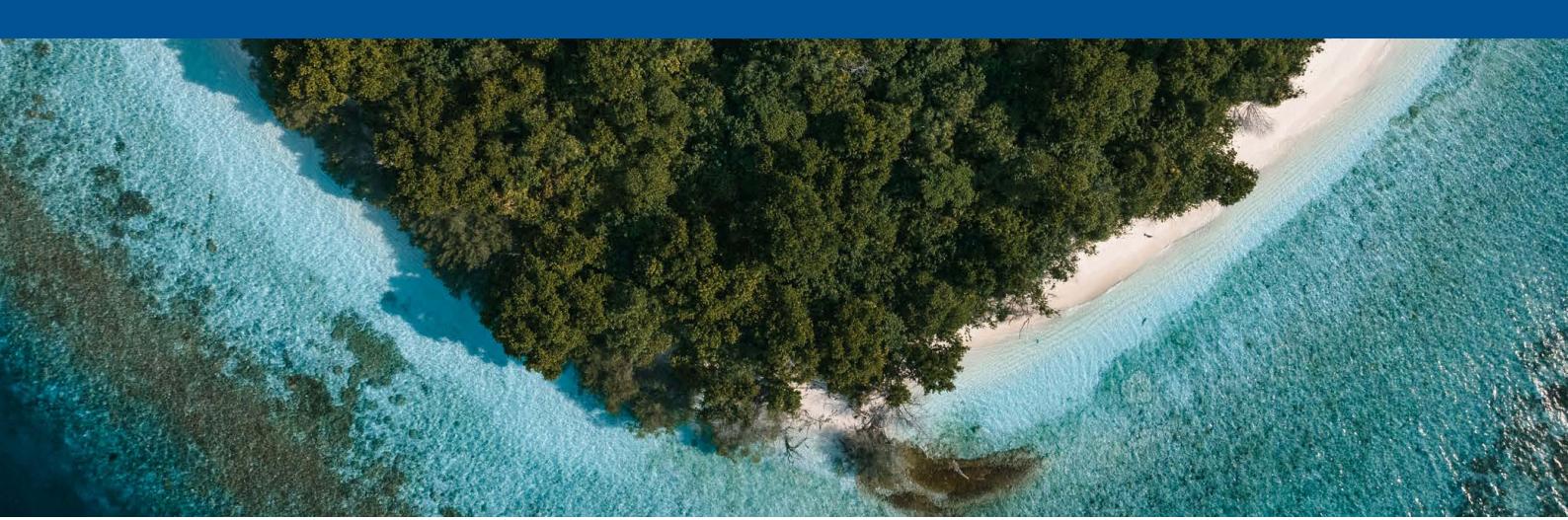




## GOVERNANCE

The Maldives Manta Conservation Programme is a diverse collaborative organisation, governed by Maldivians, working with the Manta Trust to deliver its mission.

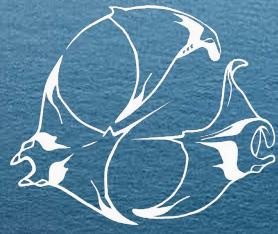
Our personnel are the greatest conservation tool at our disposal, so maintaining a happy and functioning team by ensuring that they feel secure and supported in carrying out their work is critical if we are to achieve the goals laid out in this plan. At the time of creating this document the MMCP still relies on the support and guidance of the Manta Trust on operational matters, so we are putting the structures in place to fill knowledge gaps and build expertise in the MMCP team to reduce this dependency. However, we will remain a proud affiliate project of the Manta Trust, working in close collaboration with a global network of manta and devil ray conservations towards a shared vision, ensuring that the MMCP maintains its reputation as a pioneer in manta and devil ray conservation.



PLANNED WORK >	INTENDED RESULTS >	
ACTIONS >	OBJECTIVES >	STRATEGIC OBJECTIVES >
<ul style="list-style-type: none"> <li>1. Conduct a standardised period review of all projects to assess their contribution to our strategic plan. (Applies also to 4.2.1 and 4.3.3)</li> <li>2. Identify and trial projects only in research locations which would fill priority knowledge gaps in our strategic work.</li> </ul>	<p>4.1.1 Our <b>RahVeshi Programme</b> adequately contributes to our strategic work.</p>	<p><b>4.1 We have a strategic network of island community led projects. (RahVeshi Programme)</b></p>
<ul style="list-style-type: none"> <li>1. Prioritise collaborating with / supporting established conservation efforts; only creating new projects when there is a regional deficit of effort in achieving our strategic goals.</li> <li>2. Maintain relationships with a wide network of marine research and conservation individuals/organisations, facilitating collaboration.</li> </ul>	<p>4.1.2 We never duplicate effort and always have a <b>collaborative approach</b> to all activities.</p>	<p><b>4.2 We have a strategic network of resort-based projects.</b></p>
<ul style="list-style-type: none"> <li>1. Conduct a standardised period review of all projects to assess their contribution to our strategic plan. (Applies also to 4.1.1 and 4.3.3)</li> <li>2. Assess requests for resort partnership based on contribution to our strategic plan.</li> </ul>	<p>4.2.1 Our <b>resort projects</b> adequately contribute to our strategic work.</p>	<p><b>4.2 We have a strategic network of resort-based projects.</b></p>
<ul style="list-style-type: none"> <li>1. Only creating new resort-based projects where there is a regional deficit of effort in achieving our strategic goals.</li> <li>2. Maintain relationships with a wide network of marine research and conservation individuals/organisations, facilitating collaboration.</li> </ul>	<p>4.2.2 We never duplicate effort and always have a <b>collaborative approach</b> to all activities.</p>	<p><b>4.2 We have a strategic network of resort-based projects.</b></p>
<ul style="list-style-type: none"> <li>1. Work in close collaboration with the Manta Trust; use the Manta Trust core operations team for guidance in areas where we lack internal expertise.</li> <li>2. Strategically assess MMCP team expertise, identify knowledge gaps, and recruit or provide training accordingly.</li> </ul>	<p>4.3.1 We have the <b>internal expertise and external support</b> to fulfil our strategic work.</p>	<p><b>4.3 We base our strategic conservation objectives on a scientific foundation of knowledge.</b></p>
<ul style="list-style-type: none"> <li>1. Identify knowledge gaps in literature.</li> <li>2. Publish findings in peer-reviewed journals, making them open access.</li> </ul>	<p>4.3.2 We undertake hypothesis driven <b>scientific research</b> on manta and devil rays.</p>	<p><b>4.3 We base our strategic conservation objectives on a scientific foundation of knowledge.</b></p>
<ul style="list-style-type: none"> <li>1. Conduct a standardised period review of all projects to assess their contribution to our strategic plan. (Applies also to 4.1.1 and 4.2.1)</li> <li>2. Annual review of 5-Year Plan and production of Impact Report.</li> <li>3. Undertake scientific publications of mobulid conservation focused reviews.</li> </ul>	<p>4.3.3 Our work is informed by internal and affiliate <b>MEAL</b> (monitoring, evaluation, accountability, and learning).</p>	<p><b>4.3 We base our strategic conservation objectives on a scientific foundation of knowledge.</b></p>

<p>1. Annually review a thorough Risk Register and implement new measures accordingly.</p> <p>2. Project Managers Leaders produce risk assessments for all projects.</p>	<p>4.4.1 We have adequate <b>mitigation measures in place for all major risks</b> to the charity (e.g., governance, operational, health and safety, financial, environmental, legal).</p>	
<p>1. Plan annual budget to align with our Five-Year Plan.</p> <p>2. Provide relevant personnel with training and mentorship in different types of fundraising.</p> <p>3. Seek new opportunities to further diversify income.</p>	<p>4.4.2 We have a robust and diverse <b>fundraising</b> strategy that enables us to grow our annual income by 50% over five years.</p>	
<p>1. Personnel structures in place to ensure funding accountability.</p> <p>2. Monitor financial performance and report annually to the Directors.</p> <p>3. Recruit in accordance with 5-Year Plan.</p>	<p>4.4.3 We have systems in place to monitor our <b>fundraising and planned spend</b>.</p>	
<p>1. Standardise recruitment process for all personnel (e.g., advertise widely, equal opportunities monitoring, interview structure and record keeping, vetting and legal requirements).</p> <p>2. Consider what qualifications and experience are essential for a role; other skills and qualities (e.g., local knowledge) are given equal consideration.</p> <p>3. Provide clear job descriptions and contracts of employment.</p>	<p>4.4.4 We are committed to <b>equitable and responsible recruitment</b> processes.</p>	<p><b>4.4 We are a secure, diverse, agile organisation, governed and managed by Maldivians.</b></p>
<p>1. Standardised procedure for ensuring that personnel have the information, training and support needed (e.g., Handbook, personal development meetings, refresher training, thorough handovers, exit interviews).</p> <p>2. Annually review rates of pay and benefits provided in conjuncture with performance reviews.</p>	<p>4.4.5 Our <b>personnel are well supported</b> in their roles and personal development.</p>	
<p>1. Implement secure information management practices.</p>	<p>4.4.6 Our data and <b>institutional knowledge</b> is securely stored and easily accessible to the relevant personnel.</p>	
<p>1. Establish use of Maldivian bank account so that all personnel can be paid directly by the MMCP.</p> <p>2. Prioritise fundraising efforts to support the creation of core operations roles within the MMCP.</p> <p>3. Strategically assess MMCP team expertise, identify knowledge gaps, and recruit or provide training accordingly.</p>	<p>4.4.7 We are committed to <b>reducing our dependence on the Manta Trust</b> for assistance with governance.</p>	
<p>1. Creation of brand guidelines.</p> <p>2. Working with media outlets to gain diverse and extensive coverage of the MMCP and our work.</p> <p>3. Disseminate scientific findings to the public and policy makers in engaging and digestible media.</p>	<p>4.5.1 The MMCP has a consistent, recognisable and reliable <b>brand</b>.</p>	<p><b>4.5 The profile and prioritisation of manta and devil ray conservation raised.</b></p>





**MALDIVES MANTA**  
CONSERVATION  
PROGRAMME

For more general information on the Maldives Manta Conservation Programme, please visit our website at:

**[maldivesmantaconservation.org](http://maldivesmantaconservation.org)**

