CONSERVING MANTA & DEVIL RAYS

The Manta Trust Five-Year Plan





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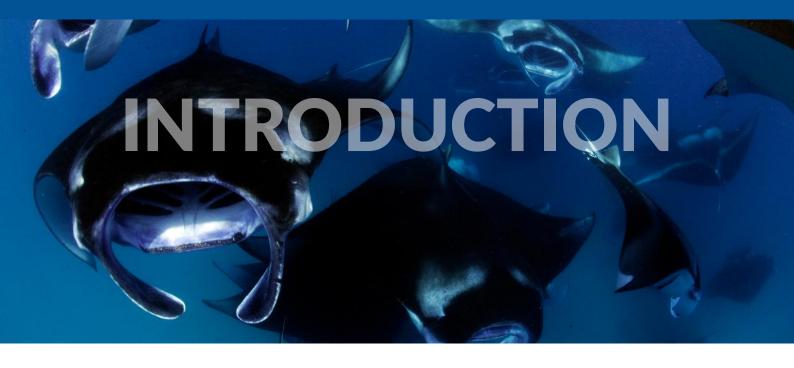
We would like to thank the Paul M Angell Family Foundation and the Save Our Seas Foundation for their ongoing support of our team and core operations.

We would also like to thank Martin Clark of The Advocacy Hub for his assistance in facilitating the creation of our Five-Year Plan, as well as our Board of Trustees and all the members of our global manta network who have contributed their guidance and expertise to this exercise.

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In late 2018, we launched "Conserving Manta & Devil Rays: A Research & Policy Strategy"; a document designed to direct global efforts and priorities to conserve manta and devil rays. The "Research & Policy Strategy", in tandem with our "Education & Diversity Strategy", illustrates the complexity and breadth of what is needed to truly achieve our vision.

Our vision is a sustainable future for the ocean, where manta rays and their relatives thrive in healthy diverse marine ecosystems.

However, to effectively play our part in contributing towards the objectives in the aformentioned strategies, and achieve our vision, we needed to better define the Manta Trust's role in the near and medium term. In response, this Five-Year Plan was created by the Manta Trust team, with guidance and input from our global network of scientists, policy experts, and educators, and with facilitation from Martin Clark of The Advocacy Hub.

The Five-Year Plan defines our four 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.

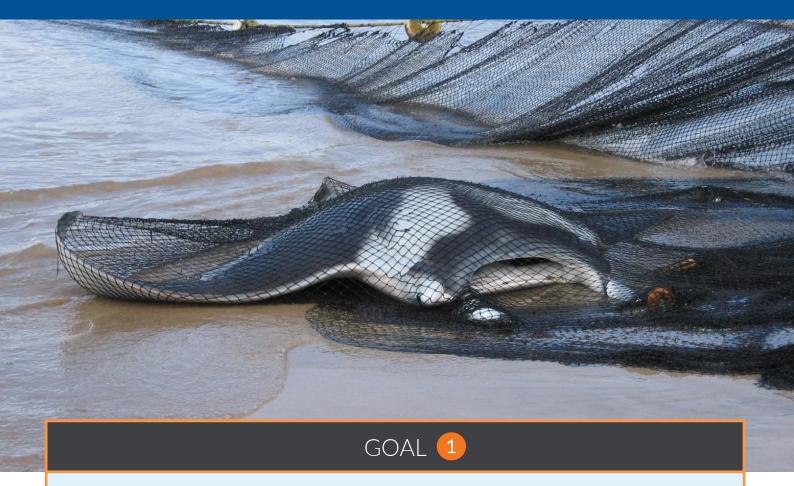
Our mission is to collaborate with affiliates around the world through research, education, and by providing expert advice to drive the policies and practices necessary to conserve manta rays, their relatives, and habitats.

As an umbrella organisation, the Manta Trust works to support 29 affiliated projects around the world. The Five-Year Plan will direct our Affiliate Project's efforts, review their progress, and support critical decisions around the distribution of our resources globally. The extent to which a project contributes to the objectives laid out in our Five-Year Plan will be a critical factor in decision making around maintaining current affiliations and forming new ones.

Several of the actions described in the Five-Year Plan are to develop new reports and studies that will drive conservation of these species that have only been intensively studied for a few decades. Building a greater foundation of robust scientific understanding is a vital step in enhancing our knowledge of their biology and ecology and understanding the impact of threats like overfishing and the climate crisis.

GOALS





Retained bycatch and targeted catch of manta and devil rays by fisheries is reduced.

Targeted fishing is a major threat to manta and devil rays (mobulids). These vulnerable species are valued for their gill plates, which are used in medicinal health tonics. In some regions they are also targeted for their meat. Over the next five years, we will take a multifaced approach to target mobulid gill plate and meat supply chains at every level; identifying and addressing policy gaps and loopholes whilst building political and institutional support for protection of these species, improving capacity for effective enforcement of conservation measures, transitioning mobulid fishers to more sustainable livelihoods, and decreasing consumer demand for manta and devil ray products in key regions.

*Geographical Focus Areas & Institutions

Atlantic Ocean - West Africa (Liberia, Ghana, Senegal, Mauritania, Republic of the Congo, Gabon), ICCAT

Eastern Pacific Ocean - Peru, Mexico, IATTC

Western Pacific Ocean - Indonesia, China (HK), Philippines, WCPFC

Indian Ocean - India, Sri Lanka, Bangladesh, Myanmar, Thailand, Kenya, Tanzania, Pakistan, UAE, IOTC

International - CITES, CMS, and The SPAW Protocol

GOAL 1: Retained bycatch and targeted catch of manta and devil rays by fisheries is reduced.	
Strategic Objective 1.1	More protective policies exist to support manta and devil ray conservation for geographical focus areas*.
Sub-objective 1.1.1	We have the knowledge (e.g., data, political climate) to drive effective policy change at all levels (local, regional, national, international).
Action 1	Conduct a global fisheries and policy review to identify priorities.
Action 2	Collect data on priority knowledge gaps identified by review.
Sub-objective 1.1.2	Governing institutions have the required knowledge and expertise to implement policy changes at all levels (local, regional, national, international).
Action 1	Publish global fisheries and policy review. (Applies also to 2.2.3, 2.2.4 and 2.2.5)
Action 2	Publish peer-reviewed articles and make them open access. (Applies also to 2.2.3, 2.2.4, 2.2.5 and 5.2.2)
Action 3	Create policy briefs for priority regions.
Sub-objective 1.1.3	There is political/institutional support for the establishment and implementation of protective policies for manta and devil rays.
Action 1	Develop and implement advocacy strategies with partners in priority jurisdictions. (Applies also to 2.2.2, 2.2.3 and 2.2.4)
Strategic Objective 1.2	There is improved enforcement of existing protective policies for geographical focus areas*.
Sub-objective 1.2.1	Governing institutions, enforcement organisations, and fishing organisations have improved capacity to enforce existing protective policies and legislation.
Action 1	Provide training and workshops.
Action 2	Create supporting resources (e.g., guidebooks, manuals, videos, etc.) and make them available in languages of target regions.
Action 3	Produce regional recommendations.

Strategic Objective 1.3	More fishers have moved to more sustainable livelihoods so that manta and devil ray fisheries are a lower target priority in geographical focus areas*.
Sub-objective 1.3.1	Economically viable and more sustainable alternatives to manta and devil ray fisheries exist for fishing communities.
Action 1	Create a handbook, including case studies, for moving fishers to more sustainable livelihoods. (e.g., Indonesia Sustainable Seafood Network).
Action 2	Implement sustainable livelihoods initiatives in key geographical focus areas
Action 3	Work with local partners to understand and develop ecologically and economically viable alternatives.
Strategic Objective 1.4	Consumer demand for manta and devil ray products (gills and meat as a priority) is reduced.
Sub-objective 1.4.1	Consumers in priority regions (China, Peru, and Sri Lanka) do not want manta and devil ray products.
Action 1	Partner with organisations working in priority regions (e.g., China, Peru, Mexico) to carry out a study into the drivers (e.g., attitudes, health, availability, cost, tradition, demographics) of manta and devil ray product consumption.
Action 2	Partner with organisations working in priority regions (e.g., China, Peru, Mexico) to conduct campaigns to influence consumer preference using results of studies.



Discarded bycatch and entanglement of manta and devil rays by fisheries is reduced.

Thousands of manta rays and tens of thousands of devil rays are caught incidentally by fisheries targeting other species each year (and post-release mortality of mobulid rays is high), making bycatch another major threat to mobulids, and a priority focus for us. These high levels of manta and devil ray bycatch are caused by the use of unselective gear in both commercial and artisanal fisheries, insufficient spatial and temporal fisheries restrictions, and because there is too much fishing globally. Over the next five years we aim to influence all relevant fishing bodies and relevant communities to take significant steps to reduce mobulid bycatch, and to ensure that policy and regulations to reduce mobulid bycatch are effective and well enforced.

*Geographical Focus Areas & Institutions

Atlantic Ocean - West Africa (Liberia, Ghana, Senegal, Mauritania, Republic of the Congo, Gabon), ICCAT

Eastern Pacific Ocean - Peru, Mexico, IATTC

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International - CITES, CMS, the SPAW Protocol

GOAL 2:

Discarded bycatch and entanglement of manta and devil rays by fisheries is reduced.

Discarded bycater and entanglement of marita and devirtays by fishenes is reduced.		
Strategic Objective 2.1	Relevant RFMOs, fishery collectives, fishing fleets, artisanal fishers, recreational, and subsistence fishers (hereafter fishers) within our geographical focus areas* are working towards measures to reduce manta and devil ray capture and bycatch mortality.	
Sub-objective 2.1.1	Effective means to reduce manta and devil ray bycatch and mortality have been identified.	
Action 1	Create and disseminate guide (identification, safe handling, data collection protocols).	
Action 2	Monitor bycatch. E.g., by working with RFMOs to implement better data recording.	
Action 3	Trial bycatch reduction methods. E.g., by working with RFMOs.	
Action 4	Create handbook to identify context specific methods to reduce manta and devil ray bycatch.	
Sub-objective 2.1.2	Relevant fishers have the knowledge and skills to reduce manta and devil ray capture and mortality.	
Action 1	Disseminate handbook and guide.	
Action 2	Workshop training in priority areas.	
Strategic Objective 2.2	Regulations and effective enforcement exist to reduce manta and devil ray capture and bycatch mortality in geographical focus areas*.	
Sub-objective 2.2.1	Relevant fishers are providing necessary data to aid policy makers.	
Action 1	Attend RFMO meetings and influence data collection and availability.	
Action 2	Workshop training in data collection.	
Sub-objective 2.2.2	There is political/institutional support for regulations that reduce bycatch for manta and devil rays.	
Action 1	Develop and implement advocacy strategies with partners in priority jurisdictions. (<i>Applies also to</i> 1.1.3, 2.2.3 and 2.2.4)	

Sub-objective 2.2.3	All relevant RFMOs and other international governing institutions have effective regulations to reduce manta and devil ray bycatch.
Action 1	Publish global fisheries and policy review. (Applies also to 1.1.2, 2.2.4 and 2.2.5)
Action 2	Publish peer-reviewed articles and make them open access. (Applies also to 1.1.2, 2.2.4, 2.2.5 and 5.2.2)
Action 3	Develop and implement advocacy strategies with partners in priority jurisdictions. (Applies also to 1.1.3, 2.2.2 and 2.2.4)
Sub-objective 2.2.4	National or local governmental institutions have effective regulations that reduce manta and devil ray bycatch.
Action 1	Publish global fisheries and policy review. (Applies also to 1.1.2, 2.2.3 and 2.2.5)
Action 2	Publish peer-reviewed articles and make them open access. (Applies also to 1.1.2, 2.2.3, 2.2.5 and 5.2.2)
Action 3	Develop and implement advocacy strategies with partners in priority jurisdictions. (Applies also to 1.1.3, 2.2.2 and 2.2.3)
Sub-objective 2.2.5	Enforcement organisations and fishing organisations are supported in enforcing regulations that reduce manta and devil ray bycatch.
Action 1	Publish global fisheries and policy review. (Applies also to 1.1.2, 2.2.3 and 2.2.4)
Action 2	Publish peer-reviewed articles and make them open access. (<i>Applies also to 1.1.2, 2.2.3, 2.2.4 and 5.2.2</i>)
Action 3	Create context specific recommendations, resources and supporting activities.



Manta and devil rays 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 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.

GOAL 3:

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

Strategic Objective 3.1	All manta and devil ray species in the regions where we work are fully protected and conserved through species management plans.
Sub-objective 3.1.1	Government policy makers have access to the relevant and accurate information and assistance required to make effective protective species management plans.
Action 1	Undertake studies to define the life history parameters (e.g., fecundity) of manta and devil rays and their threats.
Action 2	Provide the necessary data to governments to implement legislative policy for operators at key aggregation sites.
Action 3	Work with governments to develop manta and devil ray species management plans.
Sub-objective 3.1.2	Manta and devil rays have a profile in management plans which is relevant to their threat level and economic priority. (Also applies to 3.2.2)
Action 1	Undertake a study into the economic value of manta tourism activities in the regions where we work.
Action 2	Create and disseminate a short video in multiple languages highlighting the importance of manta and devil rays to the regions where we work.
Action 3	Prepare a report for practitioners highlighting the economic value and threat level at regional level.
Strategic Objective 3.2	Key manta and devil ray aggregation sites in the regions where we work fall within protected areas that are effectively managed.
Sub-objective 3.2.1	Government policy makers have access to the relevant and accurate information and assistance required to make effective protective area designations .
Action 1	Undertake studies to define spatial and temporal use of key aggregation sites by manta and devil rays in geographical focus areas.
Action 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.
Action 3	Provide the necessary data to governments to implement legislative policy for operators at key aggregation sites.
Action 4	Work with governments to develop legislative policy for operators at key aggregation sites.

Sub objective	Manta and devil rays have a profile in management plans which is relevant to their threat level and
Sub-objective 3.2.2	economic priority. (Also applies to 3.1.2)
Action 1	Undertake a study into the economic value of manta tourism activities in the regions where we work.
Action 2	Create and disseminate a short video in multiple languages highlighting the importance of manta and devil rays to the geographical focus areas.
Strategic Objective 3.3	The majority of tourists and operators in the regions where we work comply with responsible practices.
Sub-objective 3.3.1	Operators and tourists have access to scientifically backed guidelines , codes of conduct and legislation on responsible practices .
Action 1	Create a website with useful resources for operators and tourists, such as code of conduct and list of responsible operators.
Action 2	Create and disseminate a short video in multiple languages highlighting the scientifically backed guidelines, codes of conduct and legislation on responsible practices.
Sub-objective 3.3.2	Operators and tourists benefit from complying with responsible practices .
Action 1	Assist communities in the proposal and development of manta and devil ray Wildlife Heritage Areas.
Action 2	Create a citizen science review and rating system for best practice for manta and devil ray tourism activities (e.g., TripAdvisor for wildlife).
Strategic Objective 3.4	The environmental drivers on manta ray populations are better understood to help determine the impact of the climate crisis and inform conservation measures.
Sub-objective 3.4.1	We know what manta and devil rays eat and how much they need to eat to maintain healthy
0.7.1	populations.
Action 1	Assess the composition and quantity of manta and devil ray prey at key aggregation sites in focus areas and calculate prey consumption.
	Assess the composition and quantity of manta and devil ray prey at key aggregation sites in focus
Action 1 Sub-objective	Assess the composition and quantity of manta and devil ray prey at key aggregation sites in focus areas and calculate prey consumption. We have defined the key life history parameters and population dynamics for manta and devil
Action 1 Sub-objective 3.4.2	Assess the composition and quantity of manta and devil ray prey at key aggregation sites in focus areas and calculate prey consumption. We have defined the key life history parameters and population dynamics for manta and devil rays. Define age and size at maturity, growth rates, population size, fecundity and mortality rates of

Action 1	Assess changes in manta and devil ray life history parameters (e.g., fecundity) in relation to large scale oceanographic cyclical events (e.g., Indian Ocean Dipole, El Nino) over time.
Strategic Objective 3.5	Impact of boat strikes and entanglement are better understood to inform necessary conservation measures.
Sub-objective 3.5.1	Determine the spatial and temporal overlaps of habitat use by manta rays with marine vessel groups.
Action 1	Assess the areas of overlap between vessels and manta rays and categorise major vessel groups.
Sub-objective 3.5.2	Determine the major sources of entanglement in manta and devil rays.
Action 1	Assess where and when manta and devil rays are becoming entangled and what they are becoming entangled in.
Sub-objective 3.5.3	Government policy makers have access to the relevant and accurate information and assistance required to implement protective management practices to mitigate these impacts from boat strikes and entanglements (in line with strategic objectives 3.1 and 3.2).
Action 1	Work with governments to develop manta and devil ray species management plans and legislative policy for operators at key aggregation sites.
Strategic Objective 3.6	Pollution and natural system modification are better understood to inform necessary conservation measures (e.g., noise pollution and dredging).
Sub-objective 3.6.1	We understand how marine boat traffic noise pollution affects manta ray behaviour.
Action 1	Undertake a study to assess behavioural change in manta rays in response to marine boat traffic noise pollution in geographical focus areas.
Sub-objective 3.6.2	We understand how dredging activity affects manta ray behaviour and site use.
Action 1	Monitor key aggregation sites pre, during, and after a period of intense dredging activity to assess changes in site use.



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

To find sustainable solutions to marine conservation challenges, our efforts must be locally driven. Therefore, in key manta and devil ray regions we need to harness the 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 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 drive undertake citizen science initiatives and conservation actions.

	GOAL 4:	

GOAL 4: A greater number and diversity of people are taking positive action for manta and devil rays and their habitats.	
Strategic Objective 4.1	More people (a diverse range of individuals) local to manta and devil ray conservation initiatives in the regions where we work play an active role in the design and implementation of these initiatives.
Sub-objective 4.1.1	Our manta and devil ray conservation initiatives are informed by local knowledge , which benefits local communities .
Action 1	Create a handbook for participatory, community informed conservation initiatives.
Sub-objective 4.1.2	More people (a diverse range of individuals) local to our manta and devil ray conservation are recruited to work on these initiatives.
Action 1	Make more local, paid, accessible internships and jobs available and attainable.
Strategic Objective 4.2	People who interact with manta and devil rays and their habitats in geographical focus areas* are supportive of their conservation and act accordingly.
Sub-objective 4.2.1	Tourism boat, diver and snorkeler conduct in the regions where we work minimises disturbance on manta and devil rays as much as possible.
Action 1	Register more operators with Swim with Mantas.
Action 2	New Swim with Mantas video (not Manta Trust branded).
Sub-objective 4.2.2	Tourists in geographical focus areas* learn about threats to manta and devil rays and their habitats, and the work of the Manta Trust and/or our Affiliate Projects.
Action 1	Create a global manta education programme for divers and snorkelers (e.g., PADI specialty course).
Action 2	Engage tourists with manta and devil ray life history and threats through the MantaBase platform.
Strategic Objective 4.3	A greater diversity of people in the regions where we work seek careers in the marine conservation sector.
Sub-objective 4.3.1	A greater number and diversity of people from the regions where we work have an in-depth knowledge of marine environmental issues and impacts and want to work in the sector.
Action 1	Conduct a study into current education outputs, learnings, impacts.

Action 2	Use findings to guide the development of handbook and toolkit.
Action 3	Support the implementation of education initiatives (training, resource development, ocean experiences).
Sub-objective 4.3.2	A greater number and diversity of people from the regions where we work have gained practical experience and work placements related to working in the marine conservation sector.
Action 1	Conduct a study into what experience or skills people from the regions where we work see as the highest priorities or motivators to enter the field of conservation, alongside what they feel are the main barriers.
Action 2	Make more local, paid, accessible internships available using learnings from study.
Action 3	Develop a virtual work placement.
Action 4	Create a scholarship programme in practical skills (e.g., diving, attending conferences).



The Manta Trust is a diverse collaborative organisation working with independent affiliates to deliver its mission.

Our personnel, advisors, trustees, and affiliate team members are the greatest conservation tool at our disposal. Our core operations team is only small, but its influence is far reaching. As an umbrella organisation, we coordinate activities for, provide expert guidance to, fundraise for, and encourage collaboration between 29 affiliated projects worldwide. It is vital that we have the structures in place to; maintain the right combination of expertise in our core team, to ensure our personnel feel secure and supported in carrying out their work, to ensure our affiliate network is working efficiently and strategically towards the same scientifically-informed key objectives, and to ensure that the Manta Trust maintains its reputation as a world leader in manta and devil ray conservation. Therefore, our priority over the coming five years will be on consolidation rather than growth.

GOVERNANCE:

The Manta Trust is a diverse collaborative organisation working with independent affiliates to deliver its mission.

Strategic Objective 5.1	We have a strategic network of locally led independent affiliates.
Sub-objective 5.1.1	Our affiliate network adequately contributes to our strategic work.
Action 1	Conduct a standardised period review of all affiliates to assess their contribution to our strategic work. (Applies also to 5.2.3)
Action 2	Identify and support potential affiliates and research locations which would fill priority knowledge gaps in our strategic work.
Action 3	Assess requests for affiliation based on contribution to our strategic plan.
Sub-objective 5.1.2	We never duplicate effort and always have a collaborative approach to all activities.
Action 1	Prioritise collaborating with / supporting local conservation efforts (e.g., affiliation or scoping grant); only create new projects when there is a regional deficit of effort in achieving our strategic goals.
Action 2	Maintain relationships with a wide network of marine research and conservation individuals and organisations, facilitating collaboration.
Strategic Objective 5.2	We base our strategic conservation objectives on a scientific foundation of knowledge.
Sub-objective 5.2.1	We have the internal expertise and external support to fulfil our strategic work.
Action 1	Create and maintain Advisory roles to fill knowledge gaps and underpin decision making, advertising widely; use Advisors as a pool of experts from which to recruit new Trustees.
Action 2	Strategically assess core team expertise, identify knowledge gaps, and recruit or provide training accordingly.
Sub-objective 5.2.2	We undertake hypothesis driven scientific research on manta and devil rays.
Action 1	Identify knowledge gaps in literature.
Action 2	Publish findings in peer-reviewed journals, making them open access. (Applies also to 1.1.2, 2.2.3, 2.2.4 and 2.2.5)

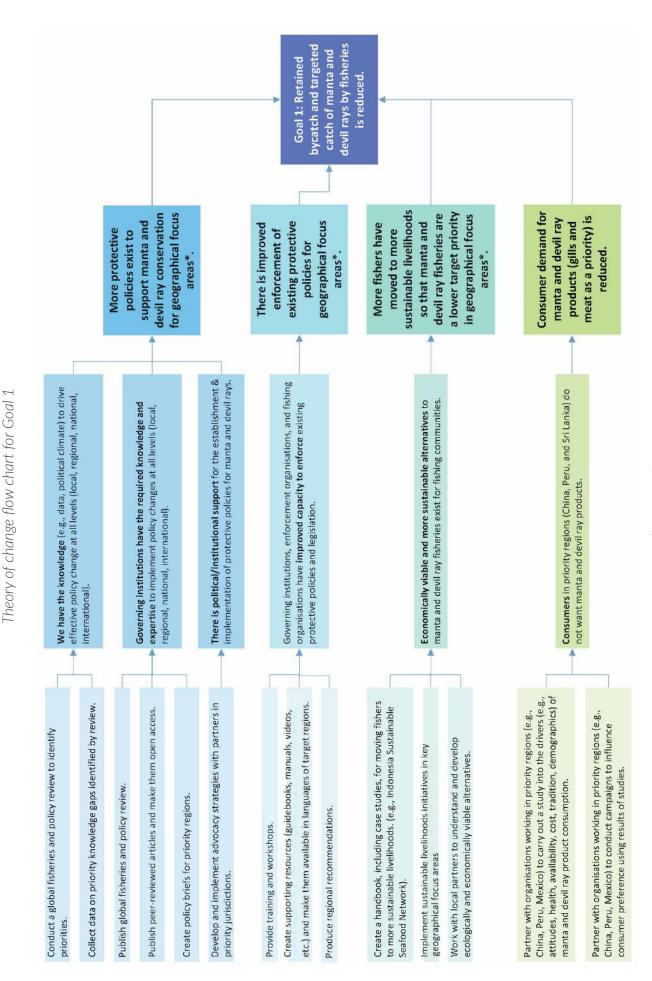
Sub-objective 5.2.3	Our work is informed by internal and affiliate MEAL (monitoring, evaluation, accountability, and learning).					
Action 1	Conduct a standardised period review of all affiliates to assess their contribution to our strategic plan. (Applies also to 5.1.1)					
Action 2	Annual review of Five-Year Plan and production of Impact Report.					
Action 3	Undertake scientific publications of mobulid conservation focused reviews.					
Strategic Objective 5.3	We are a secure, diverse, agile organisation.					
Sub-objective 5.3.1	We have adequate mitigation measures in place for all major risks to the charity (e.g., governance, operational, health and safety, financial, environmental, legal).					
Action 1	Annually review a thorough Risk Register and implement new measures accordingly.					
Action 2	Project Leaders produce risk assessments for all projects.					
Sub-objective 5.3.2	We have a robust and diverse fundraising strategy that enables us to grow our annual income by 50% over five years.					
Action 1	Plan annual budget to align with our Five-Year Plan.					
Action 2	Ensure fundraising team has a diversity of experience and expertise in different types of fundraising.					
Action 3	Seek new opportunities to further diversify income.					
Sub-objective 5.3.3	We have systems in place to monitor our fundraising and planned spend .					
Action 1	Personnel structures in place to ensure funding accountability.					
Action 2	Monitor financial performance and report quarterly to the Trustees.					
Action 3	Recruit in accordance with Five-Year Plan and seek Trustee approval before creating new roles.					

Sub-objective 5.3.4	We are committed to equitable and responsible recruitment processes.
Action 1	Standardise recruitment process for all personnel and Advisor roles (e.g., advertise widely, equal opportunities monitoring, interview structure and record keeping, vetting and legal requirements).
Action 2	Consider what qualifications and experience are essential for a role; other skills and qualities (e.g., local knowledge) are given equal consideration.
Action 3	Provide clear job descriptions and contracts of employment.
Action 4	Regularly review diversity within the team using standardised practices (e.g., RACE report).
Sub-objective 5.3.5	Our personnel are well supported in their roles and personal development.
Action 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).
Action 2	Provide a pension scheme (through a third-party pension provider) for all eligible personnel.
Action 3	Annually review rates of pay and benefits provided in conjuncture with performance reviews.
Sub-objective 5.3.6	Effective governance by a diverse and dedicated expert Board of Trustees.
Action 1	Create a diverse and dedicated expert Board of Trustees through fair recruitment processes, provision of training and declaration of all conflicts of interest by Trustees.
Action 2	Senior personnel to seek guidance from Trustees on key decisions and ensure regular contact, including quarterly meetings.
Sub-objective 5.3.7	Our data and institutional knowledge is securely stored and easily accessible to the relevant personnel.
Action 1	Implement secure information management practices.
Sub-objective 5.3.8	Small grants from the Manta Trust aid relevant work contributing to our Five-Year Plan.
Action 1	Annually ringfence ~£30,000 (amount dependant on available unrestricted funds) to award grants primarily to affiliate projects, but also to early career scientists from priority regions, and PhD students who have a supervisor from the Manta Trust. Allocation is decided based on priorities of the Five-Year Plan.

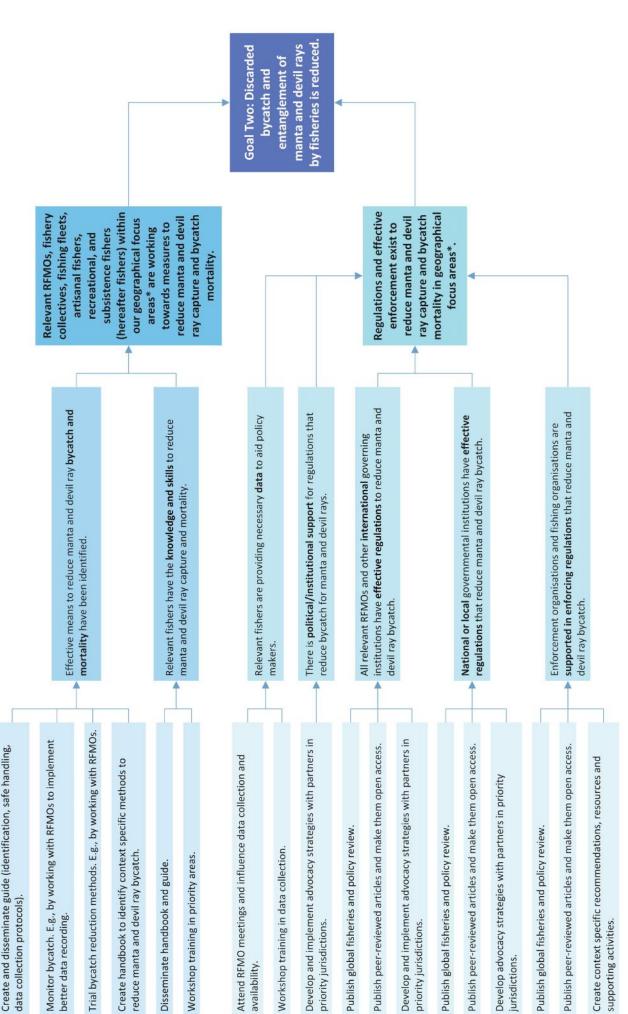
Action 2	Grant allocation is decided by the core team and approved by the Trustees before being awarded. *Grant size is annually reviewed and adjusted depending on level on income and need.
Action 3	Annually ringfence £10,000* for Emergency Grants. Affiliates can apply for financial assistance in times of urgent need when they have exhausted other funding options.
Action 4	Grant allocation is decided by the core team and approved by the Trustees before being awarded.
Strategic Objective 5.4	The profile and prioritisation of manta and devil ray conservation raised.
Sub-objective 5.4.1	The Manta Trust has a consistent recognizable and reliable brand .
•	The Manta Trust has a consistent recognizable and reliable brand . Creation of brand guidelines.
5.4.1	

^{*}Grant size is annually reviewed and adjusted depending on level on income and need.



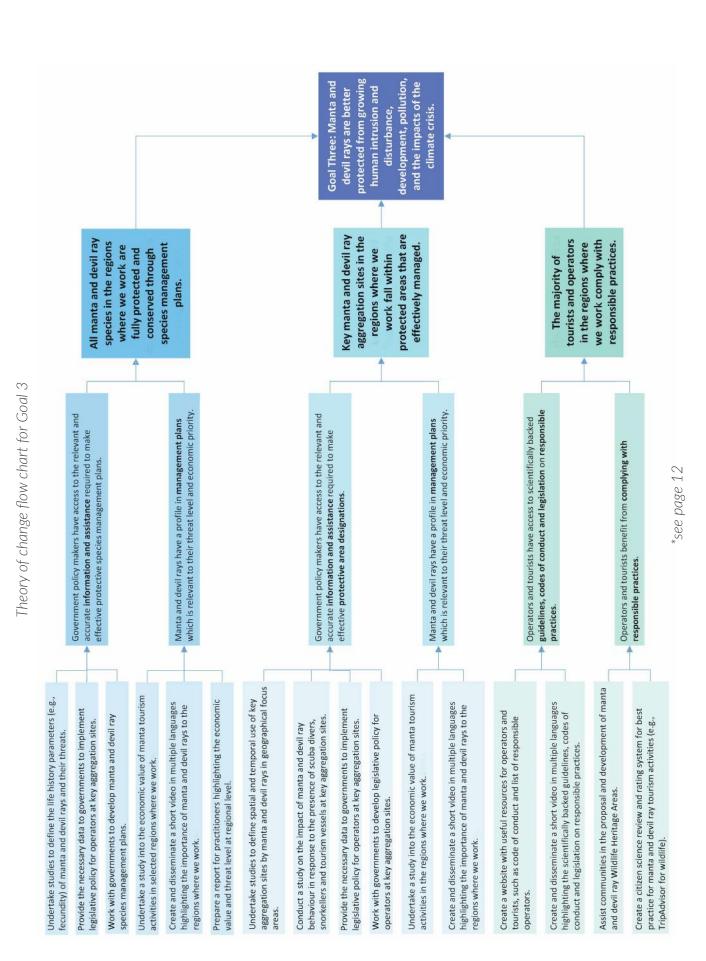


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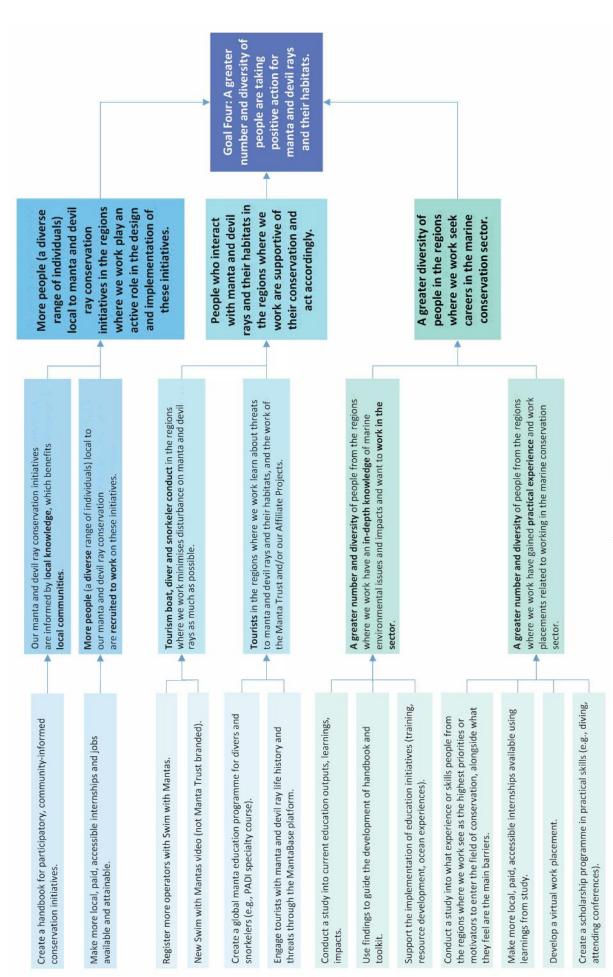
Theory of change flow chart for Goal 2

*see page 9



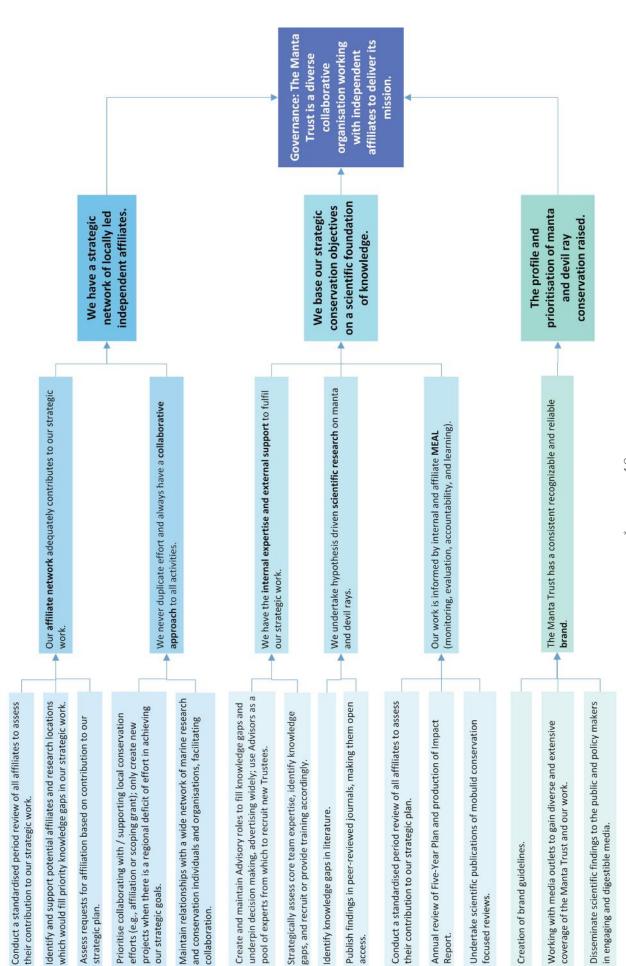
			Goal Three: Manta and	devil rays are better protected from growing human intrusion and disturbance,	and the impacts of the climate crisis.		
The environmental drivers on manta ray	populations are better understood to help determine the impact of the climate cricis and	inform conservation measures.		Impact of boat strikes and entanglement are better understood to inform necessary	conservation measures.	Pollution and natural system modification are better understood to inform necessary	conservation measures (e.g., noise pollution and dredging).
We know what manta and devils eat and how much they need to eat to maintain healthy populations.	We have defined the key life history parameters and population dynamics for manta and devil rays.	We understand changes in manta and devil ray populations in relation to large scale oceanographical cyclical events.	Determine the spatial and temporal overlaps of habitat use by manta rays with marine vessel groups.	Determine the major sources of entanglement in manta and devil rays.	Government policy makers have access to the relevant and accurate information and assistance required to implement protective management practices to mitigate these impacts from boat strikes and entanglements (in line with strategic objectives 3.1 and 3.2).	We understand how marine boat traffic noise pollution affects manta ray behaviour.	We understand how dredging activity affects manta ray behaviour and site use.
Assess the composition and quantity of manta and devil ray prey at key aggregation sites in focus areas and calculate prey consumption.	Define age and size at maturity, growth rates, population size, fecundity and mortality rates of manta and devil ray populations in focus areas.	Assess changes in manta and devil ray life history parameters (e.g., fecundity) in relation to large scale oceanographic cyclical events (e.g., Indian Ocean Dipole, El Nino) over time.	Assess the areas of overlap between vessels and manta rays and categorise major vessel groups.	Assess where and when manta and devil rays are becoming entangled and what they are becoming entangled in.	Work with governments to develop manta and devil ray species management plans and legislative policy for operators at key aggregation sites.	Undertake a study to assess behavioural change in manta rays in response to marine boat traffic noise pollution in geographical focus areas.	Monitor key aggregation sites pre, during, and after a period of intense dredging activity to assess changes in site use.

Theory of change flow chart for Goal 3 continued



Theory of change flow chart for Goal 4

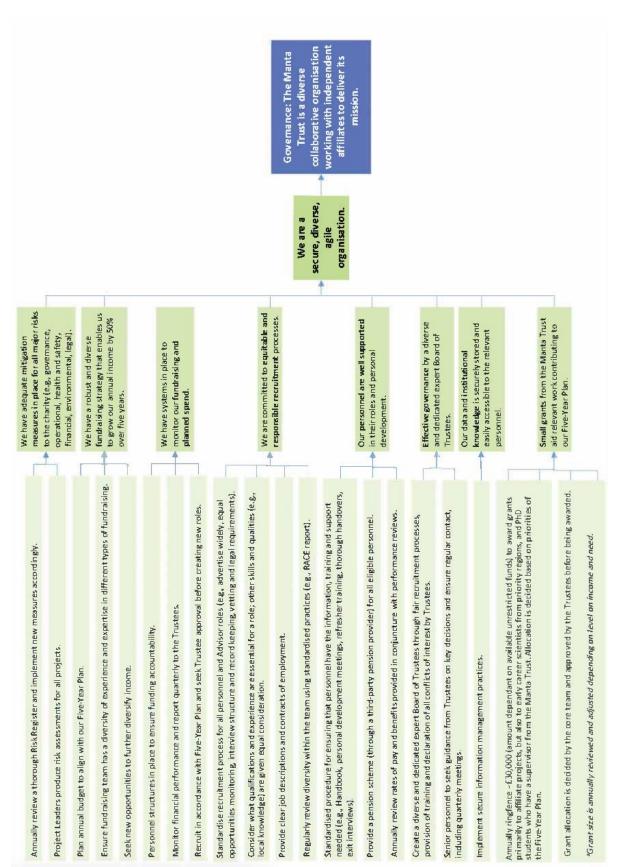
*see page 16



Theory of change flow chart for Governance

*see page 19

Theory of change flow chart for Governance continued



*Grant size is annually reviewed and adjusted depending on level on income and need.





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