



MALAYSIA NATIONAL PLAN OF ACTION



P R I O R I T Y L I S T



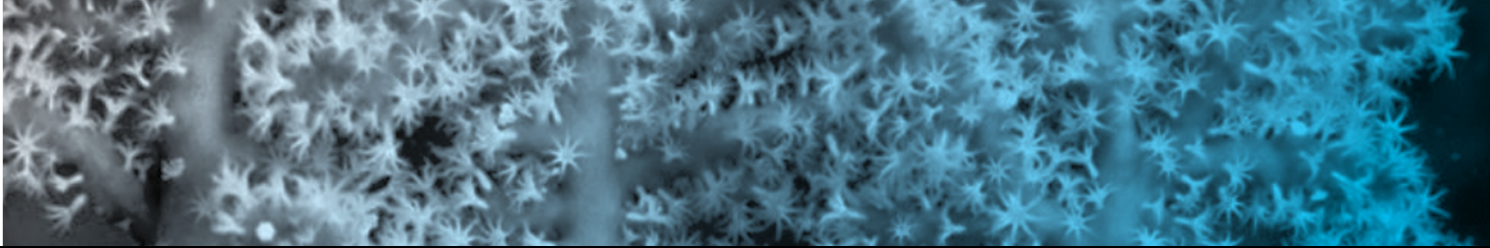
INTRODUCTION

The main objective of Coral Triangle Initiative (CTI-CFF) National Plan of Action (NPOA) is to develop a set of 'priority actions' consistent with the national aspiration, goals and targets of the CTI-CFF Regional Plan of Action. In this regard, a series of national stakeholder workshops were conducted to obtain and gather inputs from various government departments and agencies from the Federal, Sabah State and Local Government representatives, universities and research institutions as well as private and non-governmental stakeholders based in Sabah, who are involved either directly or indirectly in activities relevant to the Coral Triangle Initiative (CTI).

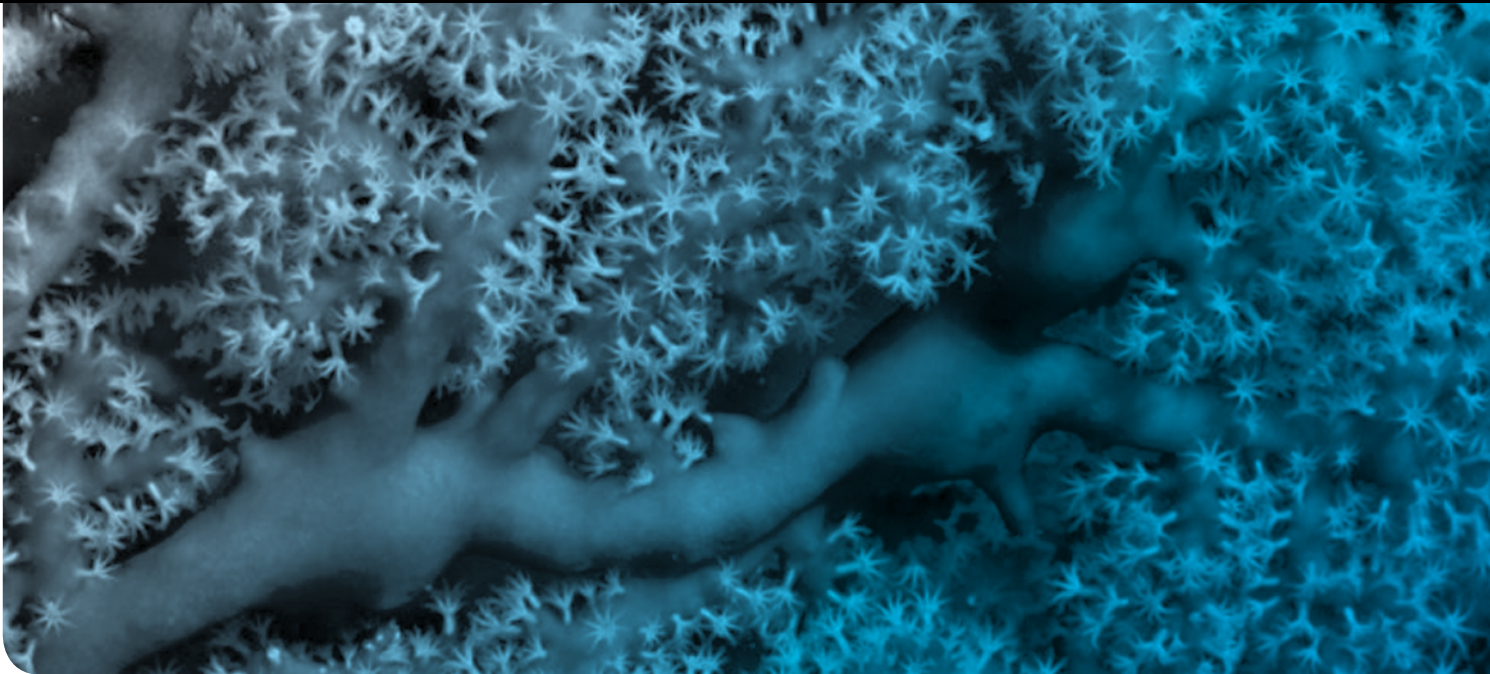
The next step forward will be to ensure that all categorised projects/programmes based on their measured objectives are to be monitored, evaluated and completed within the target date by the Regional Monitoring and Evaluation Working Group. Through this Priority List of Action, National Oceanography Directorate (NOD), Ministry of Science, Technology and Innovation (MOSTI) as the National Secretariat of CTI will provide the national priority framework that will encourage and enhance collaboration among government agencies with non-government partners as appropriate. In order to add value to existing and future initiatives, this effort could address gaps and eventually reduce overlap and duplication of effort in achieving our shared goals and objectives.

This document will provide the guidance for project evaluation and investments. The Priority List of Action in the short term will be practical, achievable and more effective in implementing the action plans. This Priority List of Action is categorised into various high impact projects/programmes that were spread fairly among the five (5) goals in NPOA. Out of the total 133 projects or programmes 61 are newly initiated, 27 are funded & commenced, two (2) were partially funded & commenced, seven (7) are funded but yet to commence while another 36 are already proposed but yet to be funded.

**National Oceanography Directorate/
National Secretariat for CTI Malaysia
MOSTI**



FUNDED & COMMENCED



Remarkable Close-up picture of a gorgonian (sea fan) colony showing its tentacled polyps.
This picture was taken at Pulau Sipadan during the Prime Scientific Marine Expedition, 2009.

(Photo by Prof Zulfigar Yasin, USM)

Actions**Primary Actors****GOAL 1: PRIORITY SEASCAPES DESIGNATED AND EFFECTIVELY MANAGED****Target 1: 'Priority Seascapes ' Designated, With Investment Plans Completed And Sequenced**

Complete the National Coastal Zone Physical Plan for Peninsular Malaysia.

DTCP, State Government Agencies

Complete the tagging program for economically important pelagic fish species in the Sulu and Sulawesi Seas.

DOFM, DoF Sabah, Universities

GOAL 2: ECOSYSTEM APPROACH TO MANAGEMENT OF FISHERIES (EAFM) AND OTHER MARINE RESOURCES FULLY APPLIED**Target 1: Strong Legislative, Policy, And Regulatory Framework In Place For Achieving An Ecosystem Approach To Fisheries Management (EAFM)**

Update the Fisheries Act 1985 to encompass EAFM principles.

DOFM, DoF Sabah

Finalise legally binding measures to conform to EC Regulation 1005/2008.

DOFM, Ministry of Health, MoA, MITI

Develop a system for effective information sharing on enforcement between CT countries with focal points designated.

MMEA, RMN, DOF Sabah, RMP

Extend and improve the VMS program to monitor all commercial pelagic fisheries vessels, and to achieve internationally bench-marked standards of operational performance. .

DOFM, DoF Sabah

Develop a program for the coastal community and fishers to report illegal activities to the MMEA.

MMEA, DoF Sabah

Double the number of MMEA officers and enhance training relevant to CTI targets and activities.

MMEA

Increase the number and capacity of maritime enforcement assets.

MMEA, RMP, RMN, DoF Sabah, Sabah Parks

Strengthen collaborative MCS programs with neighbouring countries.

MMEA, RMN, DoF Sabah, RMP

Actions**Primary Actors**

Strengthen initiatives to combat IUU fishing in line with the RPOA - IUU.

MMEA, DOFM, RMN, RMP, NGOs

Target 3: Effective Measures In Place To Help Ensure Exploitation Of Shared Tuna Stocks Is Sustainable With Tuna Spawning Areas And Juvenile Growth Stages Adequately Protected

Complete tuna - stock survey and determine MSY.

DOFM, DoF Sabah, MOA, NOD (MOSTI)

Target 4: A More Effective Management And More Sustainable Trade In Live-Reef And Reef-Based Ornamentals Achieved

Impose and monitor export ban on humphead wrasse.

DOFM, DoF Sabah, MNRE, RMC, MMEA, NGOs, RMC, MMEA, NGOs

Promote sustainably-captured and cultured seafood to restaurant owners and wholesalers.

DoF Sabah, NGOs, Universities

Implement and adopt Full-Cycle Aquaculture (FCA) to alleviate pressure on wild stocks.

DoF Sabah, DOFM, NGOs, Universities

GOAL 3: MARINE PROTECTED AREAS (MPAs) ESTABLISHED AND EFFECTIVELY MANAGED

Target 1: Region-Wide Coral Triangle Mpa System (CTMPAS) In Place And Fully Functional

Assess Management Effectiveness for Sabah MPAs.

Sabah Parks

Review existing MPA plans and programs with regard particularly to goals, objectives, principles and operational design elements.

DMPM, Sabah Parks

Gazette and establish Tun Mustapha Marine Park (TMMP).

Sabah State Government, State Attorney-General's Chambers, Sabah Parks

Design and implement a spatial zoning plan and gear-based management strategies within the Kudat-Banggi Priority Conservation Area (PCA).

DoF Sabah, Sabah Parks, NGOs, Universities

Actions**Primary Actors**

Survey of coral reef areas, particularly in marine parks.

DoF Sabah, Sabah Parks, Universities, NGOs

Implement a program on connectivity related research, such as larval dispersal, genetics, spawning aggregations, etc.

DOFM, Universities

GOAL 4: CLIMATE CHANGE ADAPTATION MEASURES ACHIEVED**Target 1: Region-Wide Early Action Plan For Climate Change Adaption For The Near-Shore Marine And Coastal Environment And Small Island Ecosystems Developed And Implemented**

Increase the number of data collection stations in Malaysian waters, and expand the type and amount of data collected.

JUPEM, DID, MMD, RMN, MNRE, Marine Department, NOD (MOSTI), NAHRIM

Complete the National Coastal Zone Physical Plan for Peninsular Malaysia.

DTCP, State Government Agencies

Complete Integrated Shoreline Management Plans (ISMP) for the Malaysian coastline.

DID, NAHRIM, Private sector, Sabah State Government, Sarawak State Government

Complete National Coastal Vulnerability Index for coastal strategic assets and major urban centres in Peninsular Malaysia.

DID, MMD, Private sector, Universities, NAHRIM

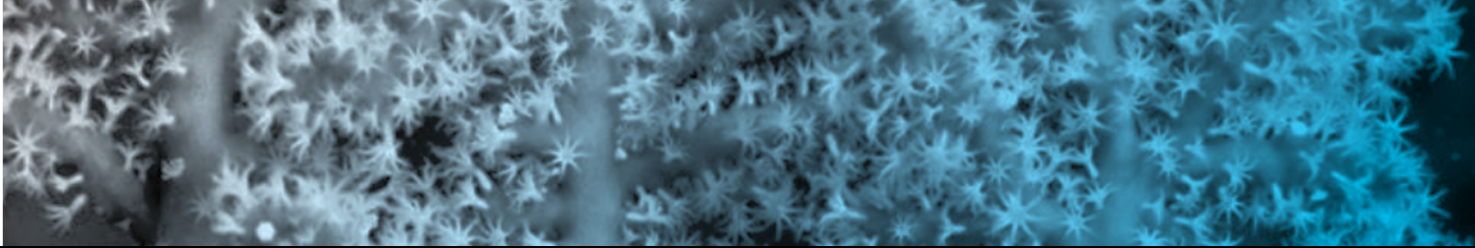
GOAL 5: THREATENED SPECIES STATUS IMPROVING**Target 1: Improved Status Of Sharks, Sea Turtles, Seabirds, Marine Mammals, Corals, Seagrass, Mangroves And Other Identified Threatened Species**

Complete and implement the Conservation and Management plan for Marine Mammals.

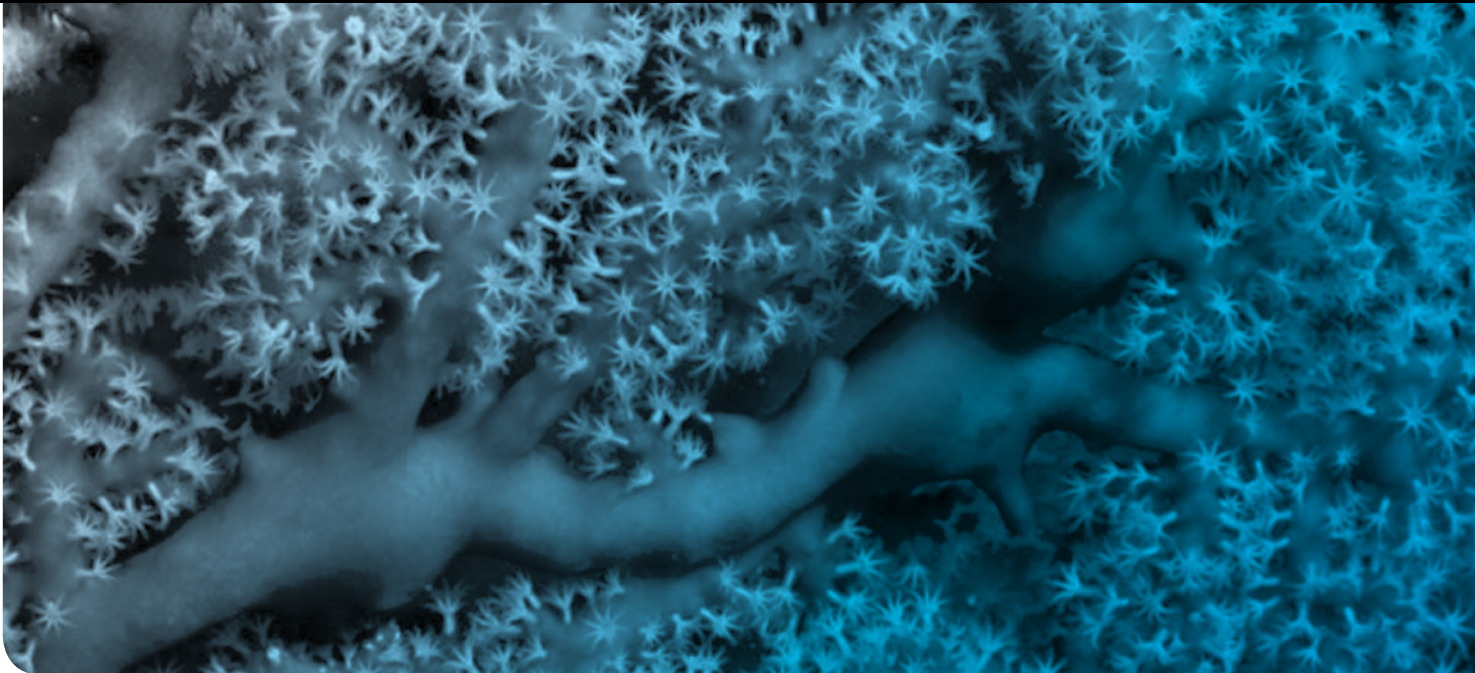
MIMA, DOFM, NGOs, Universities

Establish and enhance VMS; inspections at sea, in port, and at landing sites; and the national on-board observer program for fisheries and by-catch monitoring.

DOFM, MMEA, DoF Sabah



PROPOSED & UNFUNDED



Remarkable Close-up picture of a gorgonian (sea fan) colony showing its tentacled polyps.
This picture was taken at Pulau Sipadan during the Prime Scientific Marine Expedition, 2009.

(Photo by Prof Zulfigar Yasin, USM)

Actions**Primary Actors****GOAL 1: PRIORITY SEASCAPES DESIGNATED AND EFFECTIVELY MANAGED****Target 1: 'Priority Seascapes " Designated, With Investment Plans Completed And Sequenced**

Conduct regular oceanographic surveys in the SSME, and other Malaysian waters.

NOD (MOSTI), MOSTI, Universities, NHC (RMN), DOFM, DMPM, Sabah Parks, MMD, DTCP

Target 2: Marine And Coastal Resources Within All Priority Seascapes Are Being Sustainably Managed

Strengthen coordination amongst the Sabah Environment Education Network (SEEN) (comprising policy- makers, practitioners, planners, and trainers from government agencies, NGOs, and private sector) to undertake Environmental Education efforts in Sabah.

MOE, SEEN

Implement management and conservation strategy for SSME mangrove forest reserves, and apply this strategy with necessary adaptations throughout Malaysia.

Sabah Forestry Department, Forestry Department, DID, FRIM

Develop economically feasible and ecologically suitable seaweed farming using best culturing techniques and seaweed strains in Sabah.

DoF Sabah, MOSTI (SIRIM, TPM, ABI, MTDC), Universities, Sabah State Government, LKIM

Develop and utilize a Mangrove Information System (MIS) for the Malaysian coast in the SSME.

Sabah Forestry Department, Universities

Rehabilitate abandoned shrimp farms to their natural state or for other sustainable aquaculture uses.

DoF Sabah, DOFM, ABI, District Offices, State Governments

Establish an inter-sectoral committee to develop and guide the implementation of an ICM plan at the SSME demonstration and replication sites.

DoF Sabah, District Office, Relevant SSME Sub-Committees, DTCP, DTRP

Conduct regular oceanographic surveys in the SSME, and other Malaysian waters.

NOD (MOSTI), MOSTI, Universities, NHC (RMN), DOFM, DMPM, Sabah Parks, MMD, DTCP, PETRONAS

Actions**Primary Actors****GOAL 2: ECOSYSTEM APPROACH TO MANAGEMENT OF FISHERIES (EAFM) AND OTHER MARINE RESOURCES FULLY APPLIED****Target 1: Strong Legislative, Policy, And Regulatory Framework In Place For Achieving An Ecosystem Approach To Fisheries Management (EAFM)**

Strengthen a high-level EAFM Steering Committee comprising inter-agency government representatives and stakeholders.

DOFM, DoF Sabah, NOD (MOSTI), MIMA, NGOs, Universities

Develop an EAFM Strategy for Sabah fisheries.

DOF Sabah, Sabah Parks, Sabah Forestry Department, Relevant SSME Sub-Committees, MMEA, RMN, RMC, RMP

Determine the status and issues of IUU fishing, especially along borders within the SSME.

MMEA, DoF Sabah, DOFM, Universities

Implement an EAFM Plan for small pelagic fisheries for the SSME demonstration and replication sites throughout Malaysia.

DoF Sabah, SSME Sub-Committee on Sustainable Fisheries, NGOs

Conduct regular tagging program for economically important pelagic fish species in the Sulu and Sulawesi seas with the cooperation and cost sharing of CT neighbouring countries.

DOFM, DoF Sabah, Universities

Actions**Primary Actors****Target 2: Improved Income, Livelihoods And Food Security In An Increasingly Significant Number Of Coastal Communities Across The Region Through A New Sustainable Coastal Fisheries And Poverty Reduction Initiative (Coatfish)**

Undertake education and public awareness programs to foster better understanding among the general public of the multiple values of mangrove forests.

Sabah Forestry Department,
NOD (MOSTI),
MOE, Universities,
Private Sectors, NGOs

Address problems faced by seaweed farmers.

DoF Sabah, MOA,
MMEA, Universities,
NGOs, RMP, LKIM

Develop economically feasible and ecologically suitable seaweed farming using best culturing techniques and seaweed strains in Sabah.

DoF Sabah,
MOSTI (NOD, ABI, TPM, SIRIM),
Universities,
Sabah State Governments

As a SSME initiative, develop joint pilot projects with Indonesia and the Philippines to establish experimental farms for the culture of high-value seaweed species, and share improved quality seed stocks for seaweed farms.

DoF Sabah,
MOSTI (NOD, ABI, SIRIM, TPM),
LKIM, Universities,
Relevant SSME Sub-Committees

Use satellite imagery to assist in the prediction of fish aggregation and harmful algal bloom in coastal waters.

MOSTI (NOD,S2S,ARSM),
DOFM, Private Sectors,
Universities, LKIM

Rehabilitate abandoned shrimp farms to their natural state or for other sustainable aquaculture uses.

DoF Sabah, DOFM,
District Offices,
State Governments

Actions**Primary Actors****Target 3: Effective Measures In Place To Help Ensure Exploitation Of Shared Tuna Stocks Is Sustainable With Tuna Spawning Areas And Juvenile Growth Stages Adequately Protected**

Nominate a balanced representative delegation of Government officers, NGO members, academics, fishers, and private-sector companies to participate in the informal CTI Forum on Tuna Governance.

NOD (MOSTI), DOFM,
DoF Sabah

Implement project proposal on seafood security to assess sustainability and accessibility of resource supply in Malaysia.

DOFM, DoF Sabah,
NOD (MOSTI), MIMA

Conduct regular oceanographic surveys in the SSME, and other Malaysian waters.

MMD, S2S, Universities,
NHC (RMN), NOD (MOSTI),
DOFM, DMPM,
Sabah Parks

Target 4: A More Effective Management And More Sustainable Trade In Live-Reef And Reef-Based Ornamentals Achieved

Implement best management practice for aquaculture, with emphasis on the production of reef fish.

DoF Sabah

Collect and collate baseline information on groupers, humphead wrasse, and other targeted reef fish and ornamentals.

DOFM, DoF Sabah, NGOs,
Universities

Survey, identify and map marine spawning aggregation areas.

DoF Sabah, Sabah Parks, DOFM,
NGOs, Universities

Actions**Primary Actors****GOAL 3: MARINE PROTECTED AREAS (MPAs) ESTABLISHED AND EFFECTIVELY MANAGED****Target 1: Region-Wide Coral Triangle Mpa System (Ctmpas) In Place And Fully Functional**

Identify additional priority coral reef sites for restoration.

DOFM, DoF Sabah,
Sabah Parks

Implement management and conservation strategy for SSME mangrove forest reserves, and apply this strategy with necessary adaptations throughout Malaysia.

Sabah Forestry Department,
Forestry Department,
DID, FRIM

Develop and utilize a Mangrove Information System (MIS) for the Malaysian coast in the SSME.

DOFM, DoF Sabah,
Sabah Parks

Plan and execute action plans for mangrove restoration along the Malaysian coast in the SSME.

Sabah Forestry Department

Census and map MPAs in the SSME to include bio-physical and socio-economic data, along with spatial mapping of: areas with climate change resilience; fisheries-based food security data; and poverty data, overlaid with data on climate change vulnerability of marine ecosystems.

Sabah Parks,
MOSTI (ARSM, NOD),
JUPEM, Universities

Actions**Primary Actors****GOAL 4: CLIMATE CHANGE ADAPTATION MEASURES ACHIEVED****Target 1: Region-Wide Early Action Plan For Climate Change Adaption For The Near-Shore Marine And Coastal Environment And Small Island Ecosystems Developed And Implemented**

Strengthen coordination amongst the Sabah Environment Education Network (SEEN) (comprising policy- makers, practitioners, planners, and trainers from government agencies, NGOs, and private sector) to undertake Environmental Education efforts in Sabah.

SEEN

Conduct oceanographic surveys in the SSME.

NOD (MOSTI),
Universities,
NHC (RMN), MMD,
Marine Department,
DOFM, JUPEM, ARSM,
NAHRIM

Operate a dedicated oceanographic research vessel.

NOD (MOSTI),
NHC (RMN),
MoF

Actions**Primary Actors****GOAL 5: THREATENED SPECIES STATUS IMPROVING****Target 1: Improved Status Of Sharks, Sea Turtles, Seabirds, Marine Mammals, Corals, Seagrass, Mangroves And Other Identified Threatened Species**

Identify cultural and economic uses of endangered species (both consumptive and non-consumptive), and assess the level and impact of traditional harvest, with particular attention to shark fins and turtle eggs.

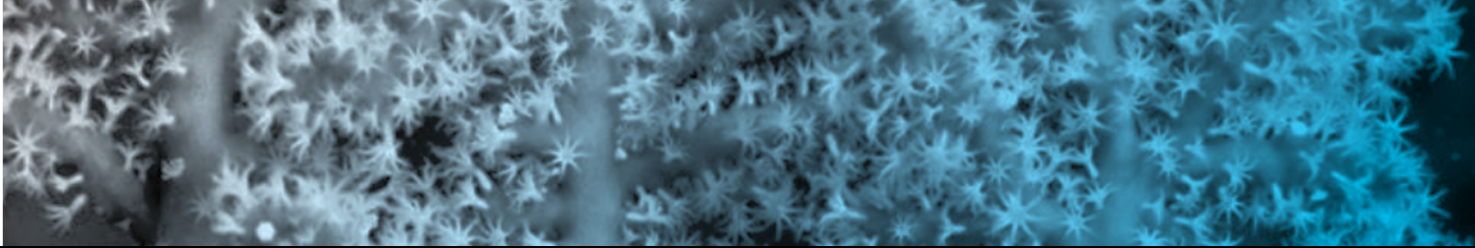
DoF Sabah, FRI, NGOs, Universities

Implement the NPOA for Conservation and Management of Sea Turtles.

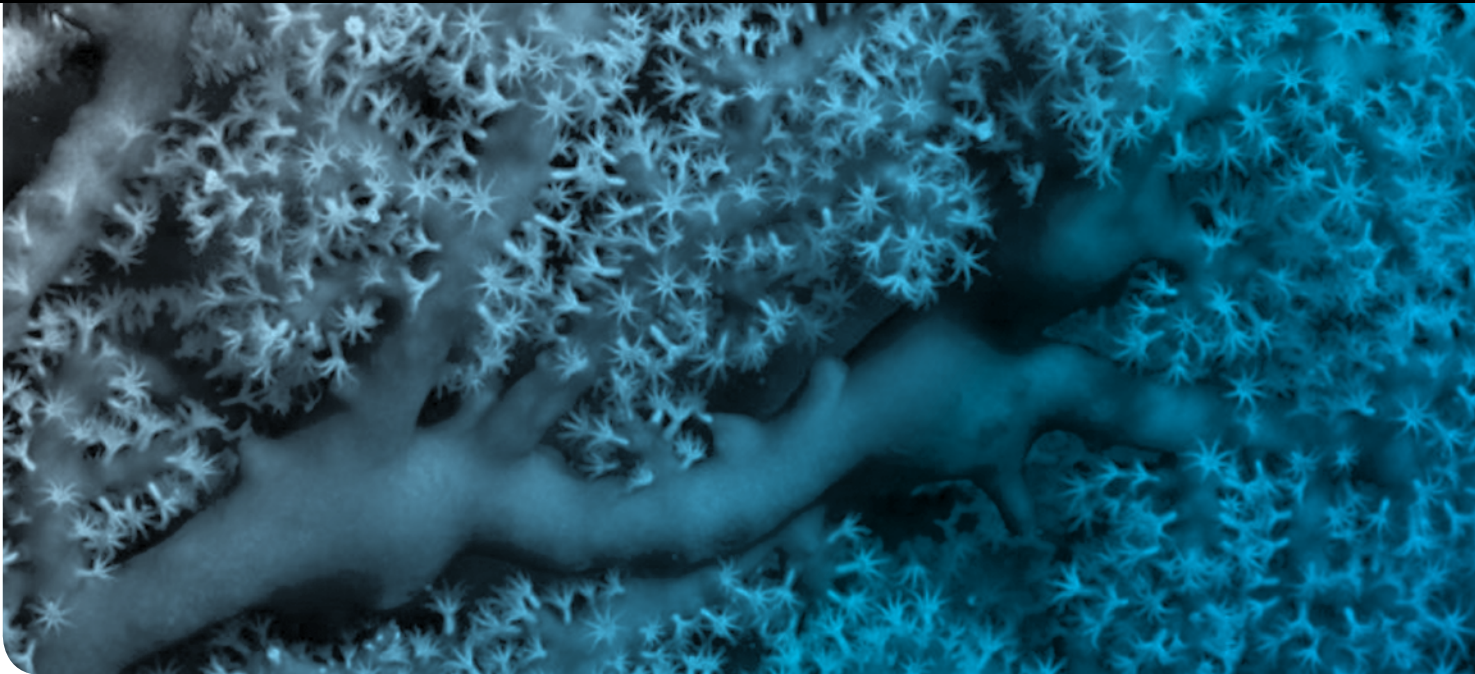
DOFM, Sabah Parks, NGOs, Universities

Implement the NPOA for Conservation and Management of Sharks.

DOFM, Sabah Parks, NGOs, Universities



FUNDED AND NOT COMMENCED



Remarkable Close-up picture of a gorgonian (sea fan) colony showing its tentacled polyps.
This picture was taken at Pulau Sipadan during the Prime Scientific Marine Expedition, 2009.

(Photo by Prof Zulfigar Yasin, USM)

Actions**Primary Actors****GOAL 1: PRIORITY SEASCAPES DESIGNATED AND EFFECTIVELY MANAGED****Target 1: 'Priority Seascapes' Designated, With Investment Plans Completed And Sequenced**

Complete the National Coastal Zone Physical Plan for Peninsular Malaysia.

DTRP, Sabah State Government,
Sarawak State Government

GOAL 1: PRIORITY SEASCAPES DESIGNATED AND EFFECTIVELY MANAGED**Target 2: Marine And Coastal Resources Within All Priority Seascapes Are Being Sustainably Managed**

Analyse and document data obtained from the 'Prime Scientific Sailing Expedition Program 2009' (EPSP09) (18 June – 5 August 2009) and other expeditions.

NOD (MOSTI), DOFM, MOSTI,
Universities, MMD

GOAL 3: MARINE PROTECTED AREAS (MPAs) ESTABLISHED AND EFFECTIVELY MANAGED**Target 1: Region-Wide Coral Triangle Mpa System (CTMPAS) In Place And Fully Functional**

Develop an Integrated MPA Management Strategy and framework for a MPA network.

DMPM, Sabah Parks

Conduct research on reef resilience against global climate change.

DMPM, Sabah Parks, NOD
(MOSTI), Universities, DOFM

GOAL 4: CLIMATE CHANGE ADAPTATION MEASURES ACHIEVED**Target 1: Region-Wide Early Action Plan For Climate Change Adaption For The Near-Shore Marine And Coastal Environment And Small Island Ecosystems Developed And Implemented**

Complete National Coastal Vulnerability Index for coastal strategic assets and major urban centres in East Malaysia.

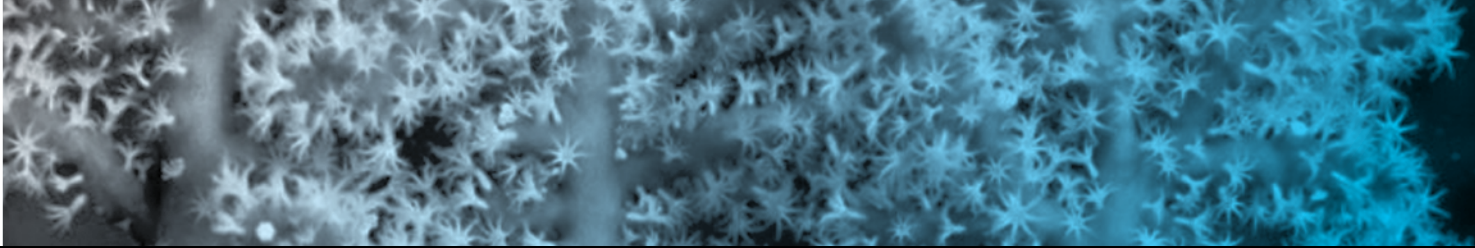
DID, MMD, Private sector,
Universities, NAHRIM

Complete a National Coastal Zone Physical Plan for East Malaysia.

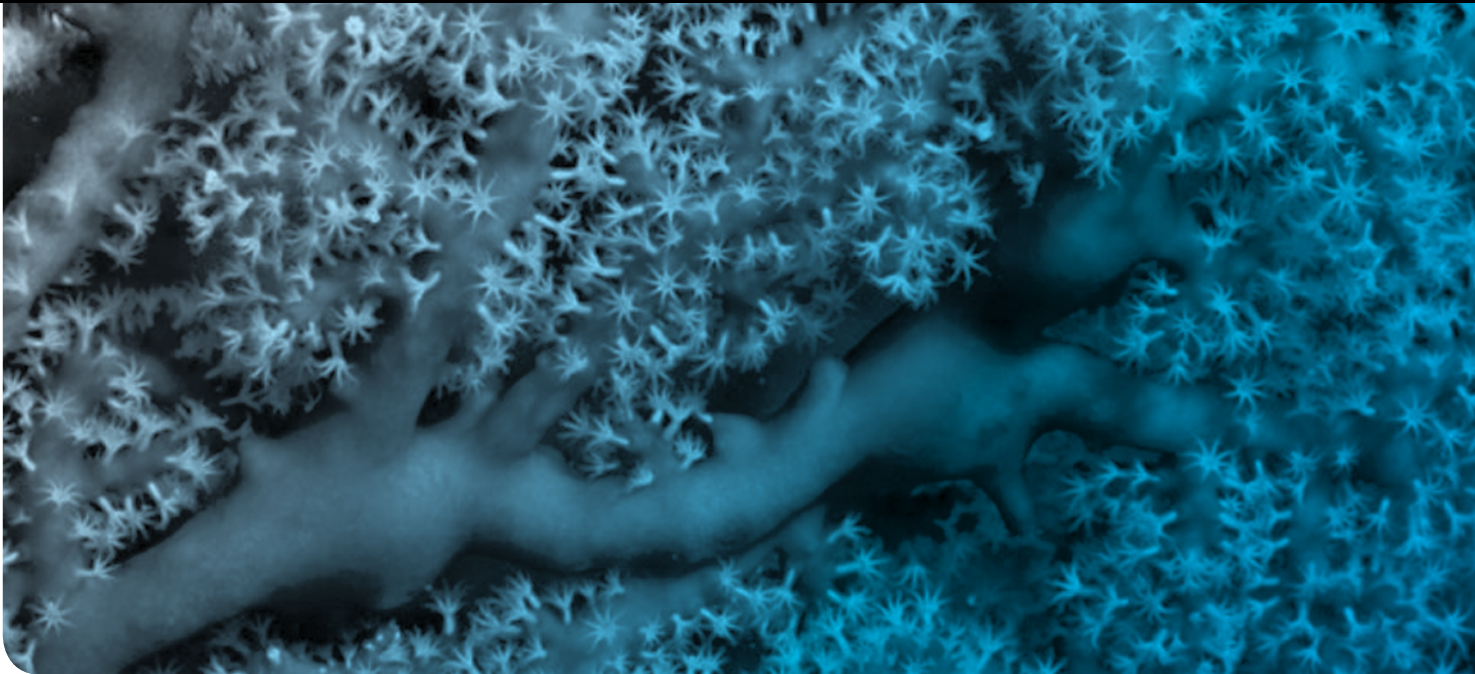
DTCP, DTRP,
Sabah State Government,
Sarawak State Government

Establish an inter-agency committee for planning and management of the EMS environmental data collection and archiving system.

NHC (RMN), NOD (MOSTI),
NAHRIM, JUPEM, ARSM, DID,
MMD, MNRE, Universities



PARTIALLY FUNDED & COMMENCED



Remarkable Close-up picture of a gorgonian (sea fan) colony showing its tentacled polyps.
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(Photo by Prof Zulfigar Yasin, USM)

Actions**Primary Actors****GOAL 2: ECOSYSTEM APPROACH TO MANAGEMENT OF FISHERIES (EAFM) AND OTHER MARINE RESOURCES FULLY APPLIED****Target 2: Improved Income, Livelihoods And Food Security In An Increasingly Significant Number Of Coastal Communities Across The Region Through A New Sustainable Coastal Fisheries And Poverty Reduction Initiative (Coatfish)**

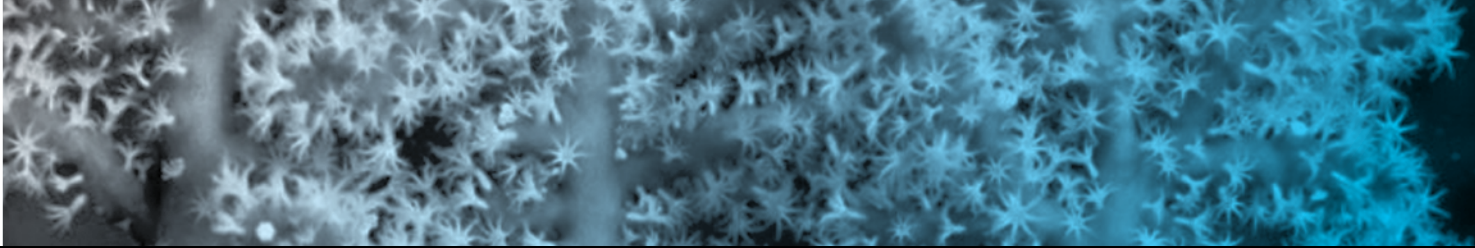
Implement public education and awareness initiatives focusing on sustainable fisheries, aquaculture, living aquatic resources exploitation and trade.

DoF, DoF Sabah, NOD (MOSTI),
MOE, Universities,
Private Sectors, NGOs

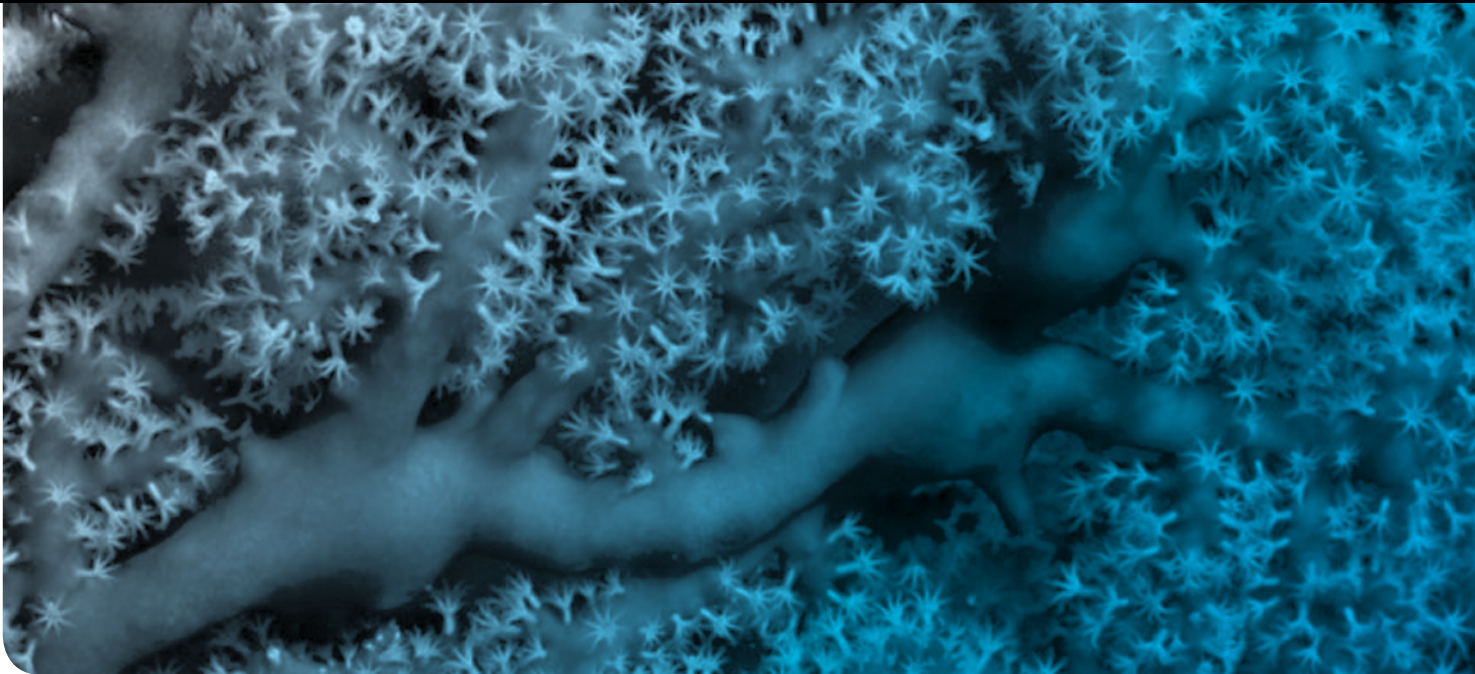
GOAL 3: MARINE PROTECTED AREAS (MPAs) ESTABLISHED AND EFFECTIVELY MANAGED**Target 1: Region-Wide Coral Triangle Mpa System (Ctmpas) In Place And Fully Functional**

Establish a representative system of MPAs.

NOD (MOSTI), DMPM,
Sabah Parks, MNRE,
Universities, NGOs



NEW CTI INITIATIVE



Remarkable Close-up picture of a gorgonian (sea fan) colony showing its tentacled polyps.
This picture was taken at Pulau Sipadan during the Prime Scientific Marine Expedition, 2009.

(Photo by Prof Zulfigar Yasin, USM)

Actions**Primary Actors****GOAL 1: PRIORITY SEASCAPES DESIGNATED AND EFFECTIVELY MANAGED****Target 1: Priority Seascapes “ Designated, With Investment Plans Completed And Sequenced**

Jointly develop investment plans with seascape partners for all identified Priority Seascapes (including the existing SSME seascape).

NOD (MOSTI), EPU, MOF, MNRE, MOA, State Governments, Private Sectors

Identify and assess Particularly Sensitive Sea Areas (PSSA) within Malaysian Priority Seascapes

NOD (MOSTI), DOFM, DMPM, Sabah Parks, Universities, DTCP, DTRP, Marine Department

Jointly complete Rapid Seascape Assessments for the Malacca Strait and the Sunda Shelf region of the South China Sea (in recognition that Priority Seascapes can cover areas outside of the CTI boundary as long as the major portion of the seascape is within the CT countries)

NOD (MOSTI), MOSTI, Universities, DOFM, MNRE, DTCP, NHC (RMN), ARSM, Marine Department, State Government

Target 2: Marine And Coastal Resources Within All Priority Seascapes Are Being Sustainably Managed

Raise internal and external funds to implement the CTI NPOA and SSME programs, including from international conservation NGOS.

NOD (MOSTI), CTI NCC, DoF Sabah, EPU, MoFA, Private Sectors

Start to mobilise domestic and international funding to support Priority Seascape programs.

EPU, NOD (MOSTI), MoF, MoFA, DOFM, DoF Sabah, Universities, MNRE, NHC (RMN)

Develop and strengthen capacity-building activities within national seascape programs designed to (i) share best practices and lessons - learned; (ii) develop critical skills and knowledge; (iii) strengthen technical and institutional capacity and (iv) empower coastal communities to participate in management programs.

NOD (MOSTI), Universities, NGOs, District Offices, DMPM, Sabah Parks, DOFM, DoF Sabah

Working closely with seascape partners, jointly adopt specific elements of a sustainably managed Seascape Program for each seascape based on local conditions.

NOD (MOSTI), DOFM, DoF Sabah, Universities, MNRE, NHC (RMN), ARSM

Conduct periodic monitoring and evaluation of Priority Seascape programs.

NOD (MOSTI), Universities, DMPM, Sabah Parks, CTI NCC, NGOs

Actions**Primary Actors****GOAL 2: ECOSYSTEM APPROACH TO MANAGEMENT OF FISHERIES (EAFM) AND OTHER MARINE RESOURCES FULLY APPLIED****Target 1: Strong Legislative, Policy, And Regulatory Framework In Place For Achieving An Ecosystem Approach To Fisheries Management (EAFM)**

Establish a national policy on EAFM.	EAFM Steering Committee
Harmonise relevant legislation between neighbouring CTI Countries.	MMEA, Attorney General's Chambers, DOFM, DoF Sabah, MNRE, MoFA, RMC, Department of Immigration
Design and implement management measures and protocols, including economic incentives for protection and management of marine turtle populations and their habitats.	DoF Sabah, Sabah Wildlife, Department, NGOs
Assess human resource capacity to identify and address gaps in EAFM implementation.	DOFM, DoF Sabah, Universities, Relevant SSME Sub-Committees

Target 2: Improved Income, Livelihoods And Food Security In An Increasingly Significant Number Of Coastal Communities Across The Region Through A New Sustainable Coastal Fisheries And Poverty Reduction Initiative (Coastfish)

Produce maps denoting the location and boundary of COASTFISH sites in Sabah.	NOD (MOSTI), JUPEM, DoF Sabah
Nominate selected coastal communities in Sabah to participate in the CTI COASTFISH program.	NOD (MOSTI), DoF Sabah, Relevant SSME Sub-Committees, NGOs
Produce baseline data on trends in CPUE; incomes from fishing and non-fishing activities; and exploitation level of key species.	DOFM, NOD (MOSTI), DoF Sabah, Universities, Private Sectors, NGOs
Share technologies, information and approaches of relevance to COASTFISH with other CT countries.	MOSTI (NOD, ABI, TPM, SIRIM), DoF Sabah

Actions**Primary Actors**

Develop a Malaysian COASTFISH Investment Plan, and share information on the development process and contents of the plan with other CT countries.

NOD (MOSTI), ABI, DoF Sabah, EPU, Relevant SSME Sub-Committees, NGOs

Mobilise domestic and international funding, technology, and expertise to support Malaysian COASTFISH initiatives.

NOD (MOSTI), DoF Sabah, MoF, EPU, DID (Coastal Division), ARSM, Universities

Target 3: Effective Measures In Place To Help Ensure Exploitation Of Shared Tuna Stocks Is Sustainable With Tuna Spawning Areas And Juvenile Growth Stages Adequately Protected

As a SSME initiative, share information on existing legislation and policies for the management of tuna and small pelagics.

DoF Sabah, Relevant SSME Sub-Committees

Exchange information with neighbouring countries on shared fish stocks, specifically on tunas and other highly migratory species as well as small pelagics.

DOFM, DoF Sabah, Relevant SSME Sub-Committees, NOD (MOSTI)

Update baseline data on trends in CPUE; incomes from subsistence, artisanal and commercial tuna fisheries; and contribution of tuna fisheries to the local economy and employment.

DoF Sabah, DOFM, NGOs

Implement EAFM for the Sabah Tuna Fishery leading to sustainable certification based on internationally recognised certification standards.

DoF Sabah

Target 4: A More Effective Management And More Sustainable Trade In Live-Reef And Reef-Based Ornamentals Achieved

Implement seasonal closure of spawning aggregation areas.

DoF Sabah, DOFM, NGOs

Implement a sustainability certification scheme and standards for Malaysia Live Reef-Fish production.

DOFM, DoF Sabah, NGOs, MoA

Impose and monitor export quota on targeted reef fish and ornamentals other than humphead wrasse.

DOFM, DoF Sabah, RMC, MMEA, NGOs

Undertake consumer survey of seafood consumption.

DoF Sabah, NGOs

Promote voluntary adoption by traders of a Code of Practice for sustainable LRFT.

DoF Sabah, DOFM

Actions**Primary Actors**

Conduct an in-depth study on the value chain of LRFT for effective management.	DoF Sabah, NGOs
Strengthen public awareness on the consequences of IUU fishing.	DOFM, MMEA, NGOs
Identify issues, lessons-learned, and success factors related to the sustainable management of LRF and reef-based ornamentals trade and publish data into the public domain.	DOFM, DoF Sabah, Universities
Develop a national management plan and policy for LRF and ornamentals trade that reflect EAFM and livelihood issues.	DOFM, DoF Sabah, MoA, NGOs
Nominate a balanced representative delegation of Government officers, NGO members, academics, fishers, and private-sector companies to participate in the informal CTI Forum on Tuna Governance.	NOD (MOSTI), LKIM, DOFM, DoF Sabah

GOAL 3: MARINE PROTECTED AREAS (MPAs) ESTABLISHED AND EFFECTIVELY MANAGED**Target 1: Region-Wide Coral Triangle Mpa System (CTMPAS) In Place And Fully Functional**

Establish and enforce additional marine sanctuaries (no-take zones).	DoF Sabah, Sabah Parks
Describe lessons - learned, best practices, failures and successes from existing MPA initiatives such as Turtle Island Park, especially with regard to (i) enforcement/trans-border patrol, (ii) sustainable financing options, and (iii) community-based resource management, and publish this information into the public domain.	DOFM, Universities
As a public/private partnership initiative, establish a 'Malaysian MPA Working Group' involving companies in relevant industries with a view to mobilizing new private-sector financial and in-kind support for MPAs and promoting best practices.	DMPM, Sabah Parks, Private Sectors
Strengthen MPA management human resource capacity through recruitment and training.	DMPM, Sabah Parks
Study and document the role of established no-take replenishment zones in Malaysia.	DoF Sabah, Sabah Parks, Universities, NGOs

Actions**Primary Actors****GOAL 4: CLIMATE CHANGE ADAPTATION MEASURES ACHIEVED****Target 1: Region-Wide Early Action Plan For Climate Change Adaption For The Near-Shore Marine And Coastal Environment And Small Island Ecosystems Developed And Implemented**

Complete the Malaysian Climate Change Coastal Adaptation Plan, with a focus on sustainable management of fisheries and livelihood diversification.

DID, MNRE, NOD (MOSTI), MMD, DOFM, DMPM, Sabah Parks, Universities, NAHRIM

Identify and reduce non-climate stresses on Malaysian marine, coastal and small-island ecosystems that directly decrease the capacity of these ecosystems to endure climate change.

NOD (MOSTI), DOFM, DoF Sabah, Sabah Parks, DMPM, MMEA, District Offices

Conduct a national climate change capacity needs assessment, and develop a capacity building program to support climate change adaptation measures.

DOFM, DoF Sabah, DMPM, Sabah Parks, Ministry of Higher Education, NOD (MOSTI), Universities

Protect multiple representatives of resilient habitats covering a range of physiographic conditions within the Malaysian CTI area, with priority given to areas that have physiographic characteristics that make them inherently resilient to climate change. Drawing on lessons learned, apply to the remainder of Malaysian waters.

For CTI region in Sabah:
Sabah Parks, DoF Sabah, DMPM, NOD (MOSTI), Sabah Forestry Department
For remainder of Malaysian waters:
DMPM, State Governments, DOFM, FRIM, DID

To the fullest extent possible consistent with Malaysian climate change adaptation planning and national capacity, implement the CTI 'Region - wide Early Action Plan for Climate Change Adaptation'.

NOD (MOSTI), DOFM, DoF Sabah, DMPM, Sabah Parks, MNRE, MOF, EPU

Revise and update Environmental Quality Act 1974, to incorporate modern environmental management best practice.

MNRE, Attorney General's Chambers

Actions**Primary Actors****Target 2: Networked National Centers Of Excellence On Climate Change Adaptation For Marine And Coastal Environments Are Established And In Full Operation**

Establish a 'National Centre of Excellence on Climate Change Adaptation for Marine and Coastal Environments' (NCECCAM).

NOD (MOSTI), DOFM, MMD, DoF Sabah, DMPM, Sabah Parks, MOA, MNRE, DID, Universities

As a pilot phase activity for the NCECCAM, estimate the economic cost of climate change impacts on Malaysian marine and coastal environments in the absence of adaptation measures, and analyse the costs and benefits of various adaptation options.

NOD (MOSTI), DOFM, DoF Sabah, MMD, DMPM, Sabah Parks, DID, NAHRIM, Universities

GOAL 5: THREATENED SPECIES STATUS IMPROVING**Target 1: Improved Status Of Sharks, Sea Turtles, Seabirds, Marine Mammals, Corals, Seagrass, Mangroves And Other Identified Threatened Species**

Collate, organise and disseminate existing data on endangered species populations, habitat utilization and threats.

DoF Sabah, DOFM, NOD (MOSTI), NGOs, Universities

Introduce net retention and recycling schemes to minimize the disposal of fishing gear at sea and on beaches.

DOFM, DoF Sabah

Research ballast water treatment technology and practices to combat the introduction of invasive marine species.

NOD (MOSTI), MNRE, Marine Department, Universities

Ensure sustainable funding mechanisms are in place to promote conservation of threatened and endangered species.

MOSTI, DoF Sabah, MNRE, Universities, NGOs

Complete and implement a NPOA for Seabirds.

MNRE, DMPM, NGOs, Universities

Actions**Primary Actors**

Review and strengthen where appropriate existing legislation on endangered species management, including but not limited to harvest and trade.	DoF Sabah, DOFM, MNRE, Attorney General's Chambers, MIMA
Complete and implement a NPOA for Seagrasses.	DOFM, MNRE, DMPM, NGOs, Universities
Establish a Network of Experts for Invasive Marine Species.	DOFM, DoF Sabah, NOD (MOSTI), NGOs, Universities
Designate conservation areas, sanctuaries or seasonal exclusion zones critical to endangered species.	DoF Sabah, Sabah Parks
Implement State and National Plan of Actions for Mangrove Conservation and Management.	DOFM, MNRE, DMPM, NGOs, Sabah Forestry Department, Universities
Design and implement management measures and protocols, including enforcement and economic incentives for the protection and management of endangered species and their habitats.	DoF Sabah
Assess, develop and implement policy to address by-catch of threatened and endangered species in capture fisheries.	DOFM, MIMA, NOD (MOSTI), DoF Sabah
Complete and implement a NPOA on invasive species.	DOFM, DMPM, MNRE, NOD (MOSTI), MIMA, Universities
Implement ballast water management procedures to reduce the risk of introduction of invasive marine species	Marine Department, Ports Authorities and Operators, MMEA, MOT, MIMA
Complete and implement the NPOA on IUU fishing.	MMEA, DOFM, DoF Sabah, RMN, RMP
Strengthen research on genetics and identify areas of critical habitat for threatened and endangered species.	NGOs, Sabah Parks, Universities, NOD (MOSTI), GMI, ABI



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Xestospongia testudinaria, a species of barrel sponge belongs to the *Petrosiidae* family that found in Sabah waters during the Prime Scientific Marine Expedition, 2009

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(Photo by Prof Zulfigar Yasin, USM)