



MALAYSIA

NATIONAL PLAN OF ACTION FOR CONSERVATION AND MANAGEMENT OF SEA TURTLES



DEPARTMENT OF FISHERIES
MINISTRY OF AGRICULTURE AND AGRO-BASED INDUSTRY
MALAYSIA



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MESSAGE BY DIRECTOR-GENERAL OF FISHERIES MALAYSIA

Malaysia is not only well-known for its pristine sandy white beaches which stretch along the Peninsular coastlines of Johore to Kelantan and Sabah and Sarawak in East Malaysia but it is also recognized as one of the important nesting rookeries of sea turtles in the world. Four species; Leatherback (*Dermochelys coriacea*), Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*) and Olive Ridley (*Lepidochelys olivacea*) turtles have been confirmed to land and nest in this country. All these species are listed under IUCN Red List as endangered species which make it crucial and essential for the Department of Fisheries, Malaysia to formulate a comprehensive management plan with the involvement of various agencies, NGO's and Institute of High Learning for the protection, conservation and enhancement of these endangered reptiles in our country.

At the regional level, under the Memorandum of Understanding (MoU) on ASEAN Sea Turtle Protection and Conservation Malaysia has been appointed as the leading country for conserving and protecting these creatures. Hence, the Department of Fisheries Malaysia has been given the heavy responsibility in promoting the proper management and conservation plan of sea turtles for the country and act as a reference to other countries in the region.

To spearhead this mission, the Department of Fisheries Malaysia brought together sea turtle experts from all over the country to formulate the National Plan of Action (NPOA) on Protection and Conservation of Malaysian Sea Turtles. The NPOA of Sea Turtles listed fifteen priorities which comprise comprehensive programs and actions for protecting, conserving and enhancing the population of sea turtles in Malaysia. One of the priorities listed in NPOA of Sea Turtles is the establishment of Malaysian Sea Turtle Working Group (MSTWG). The establishment of MTSWG is vital to ensure the entire implementation actions that are stated in NPOA of Sea Turtles will be undertaken accordingly by various departments, agencies, NGO's and Institutes of Higher Learning in the country. The success of the implementation actions set out by the NPOA of Sea Turtles are based on the strong cooperation and collaboration of various agencies and communities in the country. This NPOA of Sea Turtles could act as a strong reference to other countries in the region on formulating the management plan of these reptiles.

Finally, I would like to express my sincere thanks to the officers of the Department of Fisheries Malaysia and other agencies and NGO's such as University Malaysia Terengganu (UMT), University Malaysia Sabah (UMS), Maritime Institute of Malaysia (MIMA), WWF-Malaysia, Sabah Parks, Sarawak Forestry Corporation (SFC) and WorldFish Center for their significant contributions in ensuring that the Malaysia NPOA of Sea Turtles becomes a reality.

A handwritten signature in black ink, appearing to read 'Junaidi', written in a cursive style.

DATO' JUNAIDI BIN CHE AYUB
WISMA TANI, PUTRAJAYA
2008

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Introduction

Four species of sea turtles, the Leatherback (*Dermochelys coriacea*), Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*) and Olive Ridley (*Lepidochelys olivacea*) nest along the sandy beaches of both East and West Malaysia. Out of the 14 states in Malaysia including Federal Territory Kuala Lumpur, Putrajaya and Labuan, nine states have indicated the availability of these turtles, with Sabah and Terengganu having the most number of annual occurrences of all the species.

All four species are listed in IUCN Red Data Book as endangered species. Green turtles are the most dominant species while Leatherback and Olive Ridley show the highest decline. The earliest conservation measure to control and protect marine turtles was first introduced in Sarawak in 1932. Since then, this measure has developed into a legislative instrument and guidelines have been established at both federal and state levels.

In turtle conservation innovative steps are necessary to address the decline in turtle population and landings. It has been suggested that a total protection of all turtle eggs involving a complete ban on turtle egg consumption and sales be implemented. This is part of the ongoing conservation efforts to protect the turtles at all stages of their life cycle. The complete protection of turtle eggs

would need considerable cooperation from the various State Governments since turtle conservation falls within the judiciary of the state government. It is therefore important that a uniformed set of legislation is developed for implementation in all States where turtles land and nest, thus providing the turtles with common protection policies and practices.

The challenge now is to take strong and effective actions needed to conserve the declining population of Malaysian sea turtles. Clear policy decisions and management strategies need to be made to rehabilitate the declining population of Leatherback and Olive Ridley turtles while at the same time maintaining and even enhancing the population of Hawksbill and Green turtles. The dramatic step of protecting all turtle eggs is one of the most important and immediate measures needed to ensure that sufficient reproduction of turtles into the current population happens.

Objectives

- **To protect, conserve and enhancing the population of sea turtles in Malaysia.**
- **To implement an appropriate protection, conservation and management of sea turtles habitat.**
- **To improve the scientific knowledge by research and monitoring.**



Distribution of Sea Turtles in Malaysia

Leatherback turtle (*Dermochelys coriacea*)

Leatherbacks are in great abundance in Terengganu, particularly along the 15 kilometres stretch of coastline between Jambu Bongkok to Kuala Abang with Rantau Abang as the center of nesting concentration. Leatherbacks were also recorded to have nested at Rhu Kubur, Dungun and Paka beaches in Terengganu. Nesting season is from March to September with May to July being the peak period. No report was made about the landing or nesting of leatherbacks on the west coast of Peninsular Malaysia as well as in Sabah and Sarawak.

Green turtle (*Chelonia mydas*)

Green turtles are by far the most extensively distributed sea turtle species in Malaysia particularly in Redang Island, Perhentian Besar Island, Penarik, Chukai, Kerteh, Paka, and Geliga in Terengganu, Chendor, Cherating, Seribuat Island and Tioman Island in Pahang; and Segari/Pantai Remis in Perak; Kerachut beach in Penang; Sibu Island and Tinggi Island in Johor. In East Malaysia, nesting is concentrated on the Sarawak Turtle Islands of Talang Talang Besar, Talang Talang Kecil and Satan Besar and Sabah Turtle Islands of Bakungan Kecil, Selingan and Gulisan. Sabah, Sarawak and Terengganu have highest nesting population of Green turtles in the country.

Hawksbill turtle (*Eretmochelys imbricata*)

Pulau Gulisan, off the Sabah coastline, has the highest concentration of Hawksbills landing and nesting in Malaysia. The distribution of Hawksbills in East Malaysia are concentrated on the Turtle Island of both Sabah and Sarawak. The peak season for Hawksbills in East Malaysia is from March to June whereas Melaka has the most significant hawksbill nesting sites in Peninsular Malaysia. The peak season occurs from May to July. Hawksbills also can be found in Terengganu, Pahang and the offshore islands of Johor.

Olive Ridley turtle (*Lepidochelys olivacea*)

Most Olive Ridley turtles can be found in Terengganu though the population in Malaysia is relatively small in number. It also can be found in Pahang, Pulau Pinang and Perak. The nesting or landing sites which was recorded in Terengganu are Kuala Baru, Telaga Papan, Dungun, Paka and Geliga; while in Perak and Pulau Pinang the nesting sites are Pantai Segai and Pantai Kerachut respectively. The peak nesting season for Olive Ridley turtles in general is between February to May.



Issues and Causes of the Decline of Turtle Landings in Malaysia

The threat to the survival of the turtles is aggravated by anthropogenic interferences such as commercial exploitation, marine habitat destruction, altered beachfront, unfriendly turtle fishing gears and pollution. These issues and the causes of the decline of turtle populations in Malaysia are identified and describe below.

Economic exploitation of turtles

Turtles are exploited for both their eggs and meat. Excessive egg harvesting contributes to a dramatic decline in the nesting population of all the species. For the past few decades, the coastlines have been regarded as common property, meaning turtle egg harvesting was open to all which often led to unregulated or partially regulated with little restriction on entry. Legalised egg harvest made possible through the licensing system has unintentionally contributed to the failure to fully protect turtle eggs. Apparently, the licensed traditional collectors would rather sell the eggs at the local markets due to higher price offered than send the eggs to hatcheries. Therefore, turtle eggs harvested for consumption and commercial purposes in Malaysia should be totally banned in all states of this country. Illegal poaching on sea turtles by foreign vessels especially in foraging habitats of Sabah and Sarawak waters attribute major threats to sea turtle population in Malaysia as well as neighboring countries in the region. Regional agreement and cooperation are indeed substantially important in addressing turtle exploitation issues and in eliminating turtle egg harvesting. The agreement between Malaysia and the Philippines on the management and monitoring of foraging and nesting grounds in Sabah and the southern Philippines, known as the Turtle Islands Heritage Protected Area in 1996 could be established in other areas in the region.



Incidental capture

Trawl nets, drift nets and long lines are major fishing gears that attribute to the high mortality rate of sea turtles. Gravid female turtles are particularly vulnerable to capture in fishing gears during the nesting season as they normally reside in shore waters for longer periods. Newly emerged hatchlings areas also vulnerable to fishing operations near the nesting beaches especially those using lights. In Terengganu alone, 188 turtles were reported dead from 1990 to 1995 due to incidental capture in fishing gears. This is by far the largest human-caused source of turtle mortality. Introducing smart fishing gears which adopted smart devices such as Turtle Excluder Device (TED) in trawl nets could be one of the long term awareness programs to fishermen in the country.

Environmental degradation

Commercial coastline development is recognized as one of the major threats to turtle nesting/landing density by eliminating their nesting habitat. The coastal areas in Malaysia have been exposed to various developments due to population growth and other economic pressures. Construction of resorts, hotel, restaurants, public recreational areas and industrial plants have rendered once remote beaches unsuitable for nesting/landing of sea turtles. Indiscriminate coastal developments such as these may cause the loss of nesting beaches and foraging ground. Other types of pollution in the coastal areas such as oil, chemical, debris and siltation significantly contribute to the degradation of turtle populations. Non biodegradable garbage thrown in the seas, particularly plastic bags also pose a major threat to turtles.



Lack of education and public awareness

Awareness is still lacking, especially from direct stakeholders such as fishermen, village folks, tourist operators, chalet and hotel operators. Lack of knowledge and awareness in the biology, conservation, protection and other practices may lead to a negative and lackadaisical attitude towards the plight of turtles, indiscriminate man handling of turtles and destruction of their habitats.

Disturbance on the beach

Many nesting/landing sites are an open-access area where vendors and tourists are allowed free access, hence inviting human disturbance. Turtle-watching can contribute to economic benefits to the tourism industry in Malaysia. However, without proper management, this industry could have adverse impacts on the survival of turtles.

Hatchery Management Practices

Due to lack of knowledge in biological sciences and improper handling of incubation techniques could also cause the low hatching percentage of eggs incubated. The hatching program in hatcheries was found to have produced unbalanced sex ratio in hatchlings. The right sand temperature is essential to give a balanced sex ratio to hatchlings. The unbalance sex ratio in turtle hatchling will attribute to the unbalanced proportion of adult male and female populations of sea turtles. As a result, more infertile eggs would be produced by turtle nesters during nesting season. This may cause a declining turtle population in the future.



Conservation and Management Failure

The habitats of turtles include both water and land. The jurisdiction for both habitats in Peninsular Malaysia is divided between federal and state agencies. The DOF as the federal agency has no jurisdiction on the development of turtle landing or nesting beaches since terrestrial areas are under the State's authority. In Sabah and Sarawak, the entire turtle management and conservation efforts in the water and on land are under the jurisdiction of the State agencies. This management approach is better coordinated compared to the approach used in Peninsular Malaysia. Enforcement failures in conserving and protecting turtles and turtle eggs are mainly caused by a shortage of staff. Hence, the enforcement of the Fisheries Act 1985 particularly in the Peninsular Malaysia gives priority to matters dealing with fisheries and fishing resources and while poaching of turtle eggs and activities that harass turtles do exist,

such offences were under-reported. The legislation on turtles and painted terrapins are not properly coordinated or implemented throughout all the States in the country. Most of the existing State legislation concentrates merely on the collection and revenues of turtle eggs through licensing permits with only few measures on conservation efforts.



NATIONAL PLAN OF ACTION FOR CONSERVATION AND MANAGEMENT OF SEA TURTLES

Priorities

1. National ban on commercial sale of turtle eggs.
2. At least 80% success hatching rate of eggs incubation in all states.
3. All states to harmonise their legislation according to the new legislation of sea turtles.
4. Relevant states to gazette turtle sanctuaries in all important nesting beaches and protect all other nesting beaches.
5. Establish Malaysian Marine Turtle Working Group (MTWG).
6. Tagging and monitoring of sea turtles on all important nesting beaches.
7. Assessment and reduction of turtle by-catch (e.g. through observer program).
8. Signatory to IOSEA MoU on sea turtles.
9. Be a party to relevant MOU on sea turtle.
10. Further identification of turtle nesting, feeding and internesting habitats and migration routes for protection.
11. Restoration of selected degraded nesting beaches.
12. Intensify research on conservation needs on various life stages of turtles in order to enhance the population and improve management of their habitats.
13. Enhance public awareness, information and education program to all stake holders specifically to facilitate participation of local communities in conservation program.
14. National ban on consumption of turtle eggs and other turtle products.
15. Improving enforcement mechanism in the protection of sea turtles and their habitats.
16. Establish innovative and sustainable sources of funding.



Objective 1

Reduce direct and indirect causes of sea turtle mortality

Programme	Activity	Implementation progress to date	Lead Agency
1.1 Identify and document the threats to sea turtle populations and their habitats	a) Collate and organise existing data on threats to sea turtle populations.	Ongoing	a) DoFM
	b) Establish baseline data collection and observer programmes to gather information on the nature and magnitude of threats.	Ongoing	b) DoFM
	c) Determine those populations affected by incidental capture in fisheries, and other sources of mortality.		
1.2 Determine and apply best practice approaches to minimising those threats to sea turtle populations and their habitats	a) Identify and document best practice protocols for conserving and managing sea turtle populations within the region.	Ongoing	a) MTWG
	b) Adapt and adopt the best conservation and management practices for sea turtle populations.	Ongoing	b) DoFM, UMT, WWF
1.3 Implement programmes to correct adverse economic incentives that threaten sea turtle populations	a) Conduct socio-economic studies among communities that interact with sea turtles and their habitats.	Ongoing	a) DoFM
	b) Identify desired modifications to the economic incentives (e.g. sales of turtles eggs, seaweed cultivation) in order to reduce threats and mortality, and develop programmes to implement the modifications.	Ongoing	b) DoFM
1.4 Reduce to the greatest extent practicable the incidental capture and mortality of sea turtles in the course of fishing activities	a) Develop and use gear, devices and techniques to minimise incidental capture of sea turtles in fisheries, such as devices that effectively allow the escape of sea turtles, and spatial and seasonal closures.	a,b) Some measures already in place. Others need to be developed.	a) DoFM
	b) Develop procedures and training programmes to promote implementation of these measures, such as vessel monitoring systems and inspections at sea, in port and at landing sites, and national on-board observer programmes.		b) DoFM
	c) Exchange relevant information with other signatory States to promote these activities.		

	<ul style="list-style-type: none"> d) Liaise and coordinate with fisheries industries and fisheries management organisations to develop and implement incidental capture mitigation mechanisms in national waters and on the high seas. e) Support the UN General Assembly resolution 46/215 concerning the moratorium on the use of large-scale driftnets on the high seas. (status to be reviewed). f) Develop and implement net retention and recycling schemes to minimise the disposal of fishing gear at sea and on beaches. g) Provide and ensure the use of port facilities for the disposal of ship-borne waste. 		<ul style="list-style-type: none"> d) DoFM e) DoFM f) Port Authorities
1.5 Prohibit the direct harvest (capture or killing) of, and domestic trade in, sea turtles, their eggs, parts or products.	<ul style="list-style-type: none"> a) Work towards a national ban on commercial sale of turtle eggs. b) Enact, where not already in place, legislation to prohibit direct harvest and domestic trade in turtles and their eggs. c) Determine the cultural and traditional values and economic uses of marine turtles (both consumptive and non-consumptive). 		<ul style="list-style-type: none"> a) DoFM b) TRAFFIC c) UMT, MIMA & WWF
1.6 Develop nesting beach management programmes to maximize hatchling recruitment.	<ul style="list-style-type: none"> a) Ensure at least 80% egg incubation in all nesting sites. b) Evaluate the effectiveness of nest and beach management programmes. c) Reduce the mortality of eggs and hatchlings to maximise hatchling recruitment and survival, preferably using conservation techniques that emphasize natural processes wherever possible. d) Minimise the mortality of eggs, hatchlings and nesting female turtles caused by predators and natural physical processes. 	<ul style="list-style-type: none"> Ongoing Ongoing Ongoing Ongoing 	<ul style="list-style-type: none"> a,b,c) DoFM, UMT & WWF

Objective 2

Protect, conserve and rehabilitate sea turtle habitats

Programme	Activity	Implementation progress to date	Lead Agency
2.1 Establish necessary measures to protect and conserve sea turtle habitats.	a) Identify areas of critical habitat such as migratory corridors, nesting beaches, inter-nesting and feeding areas.	a ,b) In Progress	a) DoFM, UMT & WWF
	b) Designate and manage protected/conservation areas, sanctuaries or temporary exclusion zones in areas of critical habitat, or take other measures (e.g. modification of fishing gear, restrictions on vessel traffic) to remove threats to such areas.		b,c) DOFM, Marine Park, DOF Sabah, Sabah Parks, Johor State Park Corporation & Sarawak Forestry Corporation
	c) Develop incentives for adequate protection of areas of critical habitat outside protected areas.		
	d) Undertake assessments of the environmental impact of marine and coastal development and other human activities that may affect sea turtle populations and their habitats.		
	e) Promote within each jurisdiction best practices for the use of beaches and coastal dunes (e.g. location and design of buildings, use of appropriate artificial lighting, replanting of indigenous tree and transit of vehicles) in nesting areas that will not compromise nesting activities.		d,e) MSTWG
	f) Monitor and promote the protection of water quality from land-based and maritime pollution, including marine debris, that may adversely affect sea turtles.		f) Marine Park, DoE
	g) Strengthen the application of existing bans on the use of poisonous chemicals and explosives in the exploitation of marine resources.		g) DoF Sabah, DoE Sabah
2.2 Rehabilitate degraded sea turtle habitats	a) Re-vegetate, where appropriate, frontal dunes at nesting beaches, with indigenous flora as far as possible, in order to provide visual barriers to coastal development and to restore appropriate beach temperature regimes.	a) to be implemented	a) DoF, Local Authorities
	b) Remove debris that impedes turtle nesting and hatchling production.	b) In place	b) DoFM, UMT, WWF
	c) Enhance recovery of degraded coral reefs.		c) Marine Park of NRE
	d) Enhance recovery of degraded mangrove and seagrass habitats.		d) NRE, UM (UMMREC)

Objective 3

Improve understanding of sea turtle ecology and populations through research, monitoring and information exchange

Programme	Activity	Implementation progress to date	Lead Agency
3.1 Conduct studies on sea turtles and their habitats targeted to their conservation and management	a) Conduct baseline studies or gather secondary information on sea turtle populations and their habitats.		a) DoFM
	b) Initiate and/or continue long-term tagging and monitoring of priority sea turtle populations in order to assess conservation status.	b) In place	b) DoFM, UMT
	c) Characterise genetic identity of sea turtle populations.	c) Ongoing	c) UMT, SEAFDEC
	d) Identify migratory routes through the use of tagging, genetic studies and/or satellite tracking.	d) Ongoing	d) DoFM, UMT, SEAFDEC, WWF
	e) Carry out studies on sea turtle population dynamics and survival rates.	e) Ongoing	e) DoFM, UMT
	f) Monitor the occurrence of diseases of sea turtles.	f) Ongoing	f) MSTWG,
	g) Review periodically and evaluate research and monitoring activities.	g) Ongoing	
	h) Intensify research on conservation needs on various life stages of turtles in order to improve management of their habitats.	h) Ongoing	
3.2 Conduct collaborative research and monitoring	a) Identify and include priority research and monitoring needs in regional and sub-regional action plans.		a) SEAFDEC
	b) Conduct collaborative studies and monitoring on genetic identity, conservation status, migrations, and other biological and ecological aspects of sea turtles.	b) Ongoing	b) SEAFDEC
3.3 Analyse data to support mitigation of threats and to assess and improve conservation practices	a) Prioritise nesting populations for conservation actions.	a) Ongoing	a) MSTWG
	b) Monitor nesting population trends.	b) Ongoing	b) DoFM
	c) Use research results to improve management, mitigate threats and assess the efficacy of conservation activities -(e.g.hatchery management practices, habitat loss, etc).	c) Ongoing	c) MSTWG

3.4 Exchange information	<p>a) Standardise methods and levels of data collection and adopt or develop an agreed set of protocols for <i>inter alia</i> monitoring of nesting beaches, feeding ground studies, genetic sampling, and collection of mortality data.</p> <p>b) Exchange at regular intervals scientific and technical information and expertise among nations, scientific institutions, non-governmental and international organisations, in order to develop and implement best practice approaches to conservation of sea turtles and their habitats.</p> <p>c) Convene annual national sea turtle workshop.</p> <p>d) Develop a website and/or newsletter to facilitate networking and exchange of information.</p> <p>e) Create a directory of experts and organisations concerned with sea turtle conservation.</p>		<p>a) DoFM, UMT</p> <p>b) SEAFDEC</p> <p>c) DoFM</p>
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Objective 4

Increase public awareness of the threats to sea turtles and their habitats, and enhance public participation in conservation activities

Programme	Activity	Implementation progress to date	Lead Agency
4.1 Establish/ Enhance public education, awareness and information programmes	a) Collect, develop and disseminate education materials and implement mass media information programme.	c) Ongoing	a) MSTWG
	b) Establish where possible local community group that support turtle conservation activities.		b) MSTWG
	c) Develop and conduct focused education and awareness programmes for target groups (e.g. policy makers, teachers, schools, fishing communities, media).		c) MSTWG
	d) Encourage the incorporation of sea turtle biology and conservation issues into school curricular.		d) WWF, MNRE
	e) Organise special events related to sea turtle conservation and biology (e.g. Turtle Day, Year of the Turtle, symposia, Track-a-turtle).		e) MSTWG / Individual Members
4.2 Develop alternative livelihood opportunities for local communities to encourage their active participation in conservation efforts	Identify and facilitate alternative livelihoods (including income generating activities) that are not detrimental to sea turtles and their habitats, in consultation with local communities and other stakeholders.	Ongoing	MSTWG
4.3 Promote public participation	a) Involve stakeholders, and local communities in particular, in planning and implementation of conservation and management measures.	a) Ongoing	a) MSTWG (coordinator)
	b) Encourage the participation of Government institutions, non-governmental organisations, the private sector and the general community (e.g. students, volunteers, fishing communities, local communities) in research and conservation efforts.	b) Ongoing	b) MSTWG
	c) Implement, where appropriate, incentive schemes to encourage public participation (e.g. T-shirts for tag returns, public acknowledgement, certificates).	c) Ongoing	c) MSTWG
	d) Develop structured volunteer program to assist monitoring work, data collection and research activities.	d) Ongoing	d) UMT, WWF, DoFM

Objective 5

Enhance national, regional and international cooperation

Programme	Activity	Implementation progress to date	Lead Agency
5.1 Collaborate with and assist signatory and non-signatory States to regulate and share information on trade, to combat illegal trade, and to cooperate in enforcement activities relating to sea turtle products	<p>a) Review at a national level compliance with obligations under CITES relating to trade in sea turtles, their eggs, parts or products.</p> <p>b) Facilitate better compliance with CITES through training of relevant authorities in cooperation with other signatory States, the CITES Secretariat and other relevant organizations.</p> <p>c) Identify routes of international illegal trade through monitoring, and seek cooperation to take action to prevent, deter and, where possible, eliminate illegal trade.</p> <p>d) Exchange and discuss information on compliance and trade issues at regular intervals, such as through annual reporting to the MoU Secretariat and at meetings of the signatory States.</p> <p>e) Identify, prevent, deter and, where possible, eliminate domestic illegal trade through monitoring, implementation of legislation, identification of gaps in enforcement capabilities in each state, and training of enforcement officers.</p>	c) Ongoing	<p>a) DoFM</p> <p>b) DoFM, TRAFFIC</p> <p>c) TRAFFIC, WWF</p> <p>d) DoFM</p> <p>e) DoFM</p>
5.2 Enhance mechanisms for cooperation and promote information exchange	<p>a) Identify and strengthen existing mechanisms for cooperation at the sub-regional level.</p> <p>b) Develop networks for cooperative management of shared populations, within or across sub-regions, and, where appropriate, formalise cooperative management arrangements.</p> <p>c) Cooperate where possible in the establishment of transboundary marine protected areas using ecological rather than political boundaries.</p> <p>d) Establish relationships with regional fisheries bodies with a view to obtaining data on incidental capture and encourage them to adopt marine turtle conservation measures within EEZs and on the high seas.</p>	<p>a) Ongoing</p> <p>d) Ongoing</p>	<p>a,b,c,d) TRAFFIC & SEAFDEC</p>

<p>5.3 Build capacity to strengthen conservation measures</p>	<p>a) Identify needs for capacity-building in terms of human resources, knowledge and facilities.</p> <p>b) Provide training (e.g. through workshops) in marine turtle conservation and management techniques to relevant agencies, individuals and local communities.</p> <p>c) Coordinate training programmes and workshops.</p> <p>d) Develop partnerships with universities, research institutions, training bodies and other relevant organizations.</p>	<p>a) Ongoing</p> <p>b) Ongoing</p>	<p>a) MSTWG</p> <p>b) DoFM, SEAFDEC, UMT, WWF</p> <p>c) MSTWG</p> <p>d) MSTWG/ Individual members</p>
<p>5.4 Strengthen and improve enforcement of conservation legislation</p>	<p>a) Review domestic policies and laws to address gaps or impediments to sea turtle conservation.</p> <p>b) Harmonise all state legislation according to the new legislation for marine turtle.</p> <p>c) Cooperate in law enforcement to ensure compatible application of laws across and between jurisdictions (including through bilateral/multilateral agreements and intelligence sharing).</p> <p>d) Improve enforcement mechanism in the protection of sea turtles and their habitats.</p>	<p>b) Ongoing</p> <p>d) Ongoing</p>	<p>a) DoFM</p> <p>b) DoFM</p> <p>d) DoFM</p>



Objective 6

Promote implementation of NPOA for sea turtles

Programme	Activity	Implementation progress to date	Lead Agency
6.1 Improve coordination among government and non-government sectors in the conservation of sea turtles and their habitats	<ul style="list-style-type: none"> a) Establishment the Malaysian Sea Turtle Working Group (MSTWG). b) Review the roles and responsibilities of government agencies related to the conservation and management of sea turtles and their habitats. 		a) MSTWG, Individuals Members
6.2 Seek funding to support the implementation of the NPOA for sea turtles	<ul style="list-style-type: none"> a) Prioritise research, conservation and management activities for funding. b) Explore funding options with the Government and other donors such as the Asian Development Bank, World Bank, UNDP, European Union, UNEP, GEF, etc. c) Solicit funding and other contributions from industries that have impacts on sea turtles and their habitats (e.g. fisheries, tourism, oil industry, real estate) and provide incentives to the industries. d) Explore the use of economic instruments for the conservation of sea turtles and their habitats. e) Approach the private sector, foundations and NGOs that may have an interest in funding activities in particular countries to catalyse the creation of a small grants fund. f) Generate funding for conservation, research and management activities through managed ecotourism and other self-supporting schemes (e.g. volunteer programmes). g) Seek synergies (with respect to fund-raising, provision of institutional support, etc.) with other regional/global convention secretariats. 		a,b,c,d,e,f,g) MSTWG/ Individuals Members

Objective 1:

Reduce direct and indirect causes of sea turtle mortality.

Programme

1.1 Identify and document the threats to sea turtle populations and their habitats.

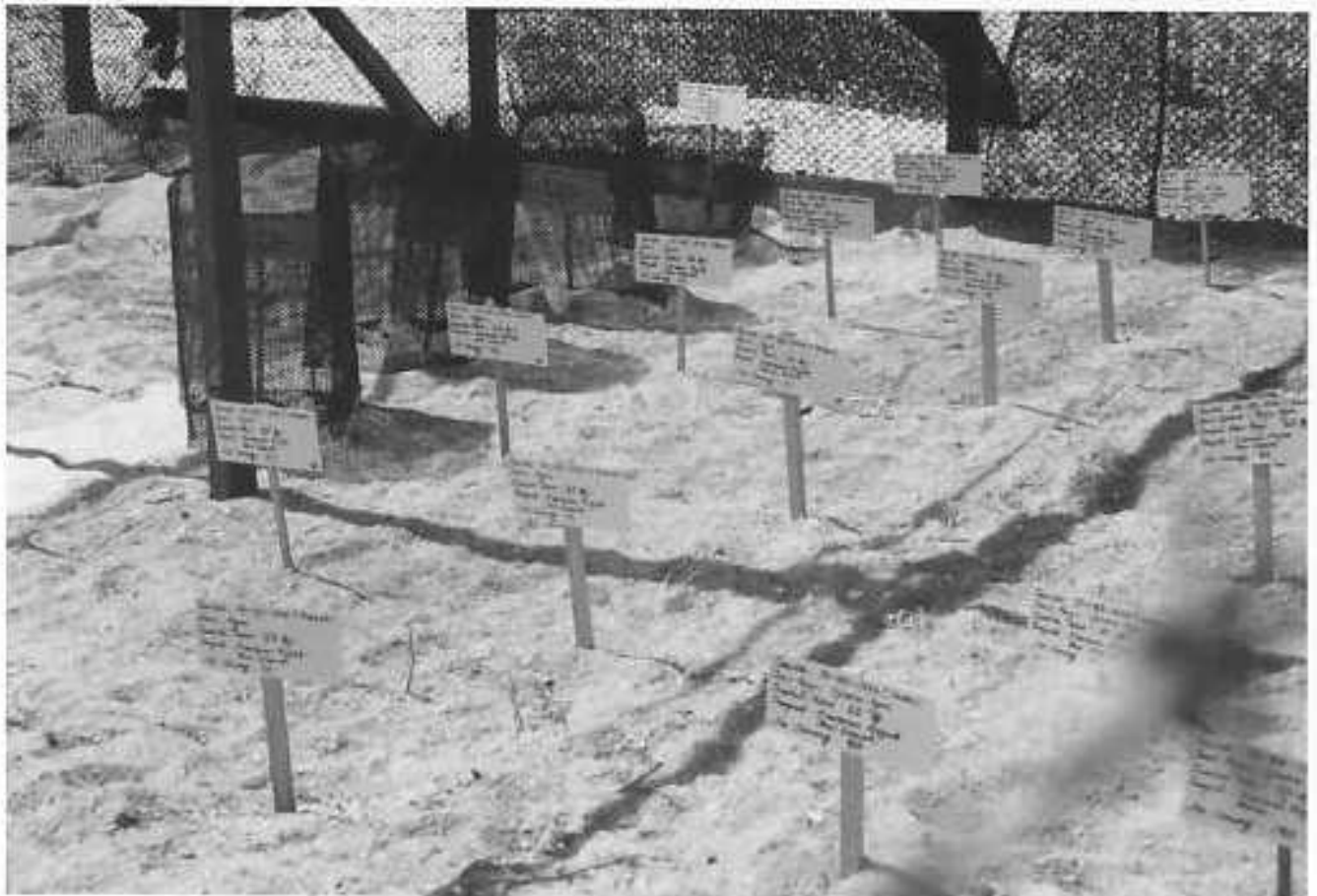
Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Collate and organise existing data on threats to marine turtle populations.	██████████															
b) Establish baseline data collection and observer programmes to gather information on the nature and magnitude of threats.									████████████████████							
c) Determine those populations affected by incidental capture in fisheries, and other sources of mortality.		████████████████														



Programme

1.2 Determine and apply best practice approaches to minimising those threats to sea turtle populations and their habitats

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Identify and document best practice protocols for conserving and managing sea turtle populations within the region.																
b) Adapt and adopt the best conservation and management practices for sea turtle populations.																



Programme

- 1.3 Implement programmes to correct adverse economic incentives that threaten sea turtle populations.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Conduct socio-economic studies among communities that interact with sea turtles and their habitats.					TERENGGANU											
									PERAK & MELAKA							
									SARAWAK & SABAH							
b) Identify desired modifications to the economic incentives (e.g. sales of turtles eggs, seaweed cultivation) in order to reduce threats and mortality, and develop programmes to implement the modifications.												PERAK & MELAKA				
												SARAWAK & SABAH				
												TERENGGANU				



Programme

1.4 Reduce to the greatest extent practicable the incidental capture and mortality of sea turtles in the course of fishing activities.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Develop and use gear, devices and techniques to minimise incidental capture of sea turtles in fisheries, such as devices that effectively allow the escape of sea turtles, and spatial and seasonal closures.																
	CIRCLE HOOK															
					TED: TERENGGANU, PERAK & PAHANG.											
b) Develop procedures and training programmes to promote implementation of these measures, such as vessel monitoring systems and inspections at sea, in port and at landing sites, and national on-board observer programmes.																
	VESSELS MONITORING SYSTEM															
									OBSERVE PROGRAMME							
c) Exchange relevant information with other signatory States to promote these activities.																
	[Blank bar]															

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
d) Liaise and coordinate with fisheries industries and fisheries management organisations to develop and implement incidental capture mitigation mechanisms in national waters and on the high seas.																
e) Support the UN General Assembly resolution 46/215 concerning the moratorium on the use of large-scale driftnets on the high seas. (status to be reviewed).																
f) Develop and implement net retention and recycling schemes to minimise the disposal of fishing gear at sea and on beaches.																
g) Provide and ensure the use of port facilities for the disposal of ship-borne waste.																

Programme

1.5 Prohibit the direct harvest (capture or killing) of, and domestic trade in, sea turtles, their eggs, parts or products.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Work towards a national ban on commercial sale of turtle eggs.																
b) Enact, where not already in place, legislation to prohibit direct harvest and domestic trade in turtles and their eggs.																



Programme

1.6 Develop nesting beach management programmes to maximize hatchling recruitment.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Target 100% egg incubation in all nesting sites.	[Activity scheduled for all months from 2009 to 2012]															
b) Evaluate the effectiveness of nest and beach management programmes.	[Activity scheduled for 2009]															
c) Reduce the mortality of eggs and hatchlings to maximise hatchling recruitment and survival, preferably using conservation techniques that emphasize natural processes wherever possible.	[Activity scheduled for all months from 2009 to 2012]															
d) Minimise the mortality of eggs, hatchlings and nesting female turtles caused by predators and natural physical processes.	[Activity scheduled for all months from 2009 to 2012]															

Objective 2:

Protect, conserve and rehabilitate sea turtle habits

Programme

2.1 Establish necessary measures to protect and conserve sea turtle habitats.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Identify areas of critical habitat such as migratory corridors, nesting beaches, inter-nesting and feeding areas.																
b) Designate and manage protected/conservation areas, sanctuaries or temporary exclusion zones in areas of critical habitat, or take other measures (e.g. modification of fishing gear, restrictions on vessel traffic) to remove threats to such areas.																
c) Develop incentives for adequate protection of areas of critical habitat outside protected areas.																
d) Undertake assessments of the environmental impact of marine and coastal development and other human activities that may affect sea turtle populations and their habitats.																

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
e) Promote within each jurisdiction best practices for the use of beaches and coastal dunes (e.g. location and design of buildings, use of appropriate artificial lighting, replanting of indigenous tree and transit of vehicles) in nesting areas that will not compromise nesting activities.																
f) Monitor and promote the protection of water quality from land-based and maritime pollution, including marine debris, that may adversely affect sea turtles.																
g) Strengthen the application of existing bans on the use of poisonous chemicals and explosives in the exploitation of marine resources.																

Programme

2.2 Rehabilitate degraded sea turtle habitats

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Re-vegetate, where appropriate, frontal dunes at nesting beaches, with indigenous flora as far as possible, in order to provide visual barriers to coastal development and to restore appropriate beach temperature regimes.																
b) Remove debris that impedes turtle nesting and hatchling production.																
c) Enhance recovery of degraded coral reefs.																
d) Enhance recovery of degraded mangrove and sea grass habitats.																



Objective 3:

Improve understanding of sea turtle ecology and populations through research, monitoring and information exchange.

Programme

3.1 Conduct studies on sea turtles and their habitats targeted to their conservation and management.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
A Conduct baseline studies or gather secondary information on sea turtle populations and their habitats.																
b) Initiate and/or continue long-term tagging and monitoring of priority sea turtle populations in order to assess conservation status.																
c) Characterise genetic identity of sea turtle populations.																
d) Identify migratory routes through the use of tagging, genetic studies and/or satellite tracking.																
e) Carry out studies on sea turtle population dynamics and survival rates.																
f) Monitor the occurrence of diseases of sea turtles.																

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
g) Review periodically and evaluate research and monitoring activities.			■				■					■				■
h) Intensify research on conservation needs on various life stages of turtles in order to improve management of their habitats.	■															

Programme

3.2 Conduct collaborative research and monitoring.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Identify and include priority research and monitoring needs in regional and sub-regional action plans.	■															
b) Conduct collaborative studies and monitoring on genetic identity, conservation status, migrations, and other biological and ecological aspects of sea turtles.	■															

Programme

3.3 Analyse data to support mitigation of threats and to assess and improve conservation practices.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Prioritise nesting populations for conservation actions.	█															
b) Monitor nesting population trends.	█															
c) Use research results to improve management, mitigate threats and assess the efficacy of conservation activities (e.g. hatchery management practices, habitat loss, etc.)				█				█				█				█

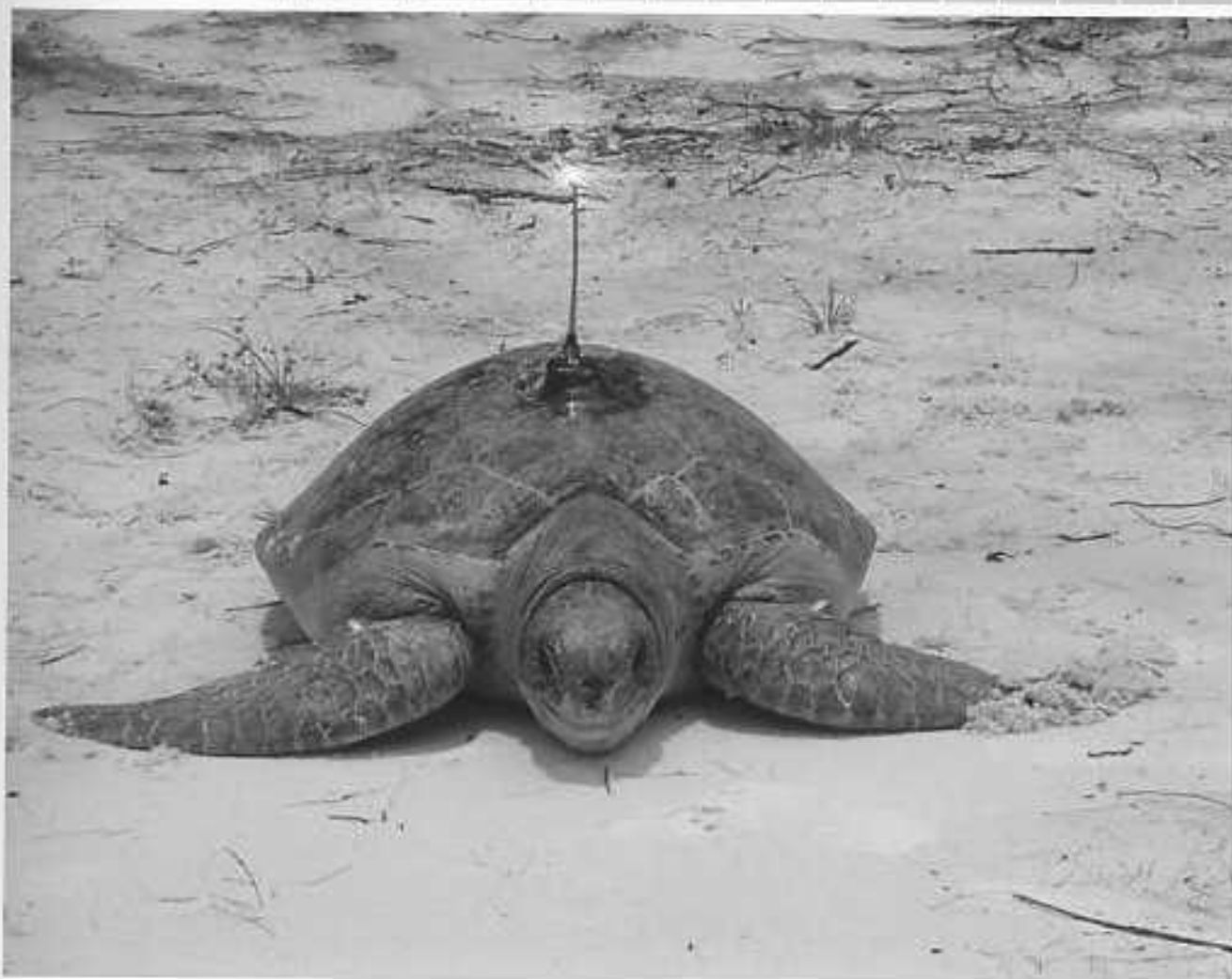


Programme

3.4 Exchange information.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Standardise methods and levels of data collection and adopt or develop an agreed set of protocols for <i>inter alia</i> monitoring of nesting beaches, feeding ground studies, genetic sampling, and collection of mortality data.																
b) Exchange at regular intervals scientific and technical information and expertise among nations, scientific institutions, non-governmental and international organisations, in order to develop and implement best practice approaches to conservation of sea turtles and their habitats.																

Activity	2009				2010				2011				2012				
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	
c) Convene national sea turtle workshop.							■									■	
d) Develop a website and/or newsletter to facilitate networking and exchange of information.	■																
e) Create a directory of experts and organisations concerned with sea turtle conservation.	■																



Objective 4:

Increase public awareness of the threats to sea turtles and their habitats, and enhance public participation in conservation activities

Programme

4.1 Establish/Enhance public education, awareness and information programmes.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Collect, develop and disseminate education materials and implement mass media information programme.	Collect, develop and disseminate education material.				Implementation and ongoing collection of education material and improvement/updating information.											
b) Establish where possible local community group that support turtle conservation activities.	Identify suitable community group, set a task force, organize dialogue, education & awareness training.				Completion of establishment of local community group.											
c) Develop and conduct focused education and awareness programmes for target groups (e.g. policy makers, teachers, schools, fishing communities, media).	Develop module for target group and trial run on module and get any feedback or improvement.								Implementation of modules.							
d) Encourage the incorporation of marine turtle biology and conservation issues into school curricular.	Development, cater the needs, views on the method and level of existing school education programmes and curricula.								Implementation by Department of Education, Malaysia.							
e) Organise special events related to sea turtle conservation and biology (e.g. Turtle Day, Year of the Turtle, symposia, Track-a-turtle)	Planning and establishment of events				Organise the event Example: Annual Sea Turtle Symposium, Turtle Year 2010 (Every 5 year's event), National Turtle Day yearly which activities are beach clean-up, releasing of hatchlings.											

Programme

- 4.2 Develop alternative livelihood opportunities for local communities to encourage their active participation in conservation efforts.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
Identify and facilitate alternative livelihoods (including income generating activities) that are not detrimental to sea turtles and their habitats, in consultation with local communities and other stakeholders.	<ol style="list-style-type: none"> 1. Identify groups involved. 2. Study on economic livelihood. 3. Make proposal on the changing of economic activities (livelihood). 4. Provide education and awareness. 5. Encouragement to change (livelihood). 								<ol style="list-style-type: none"> 1. Process of change in economic livelihood. 2. Provide assistance when needed (technical, social skill). 							



Programme

4.3 Promote public participation:

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Involve stakeholders, and local communities in particular, in planning and implementation of conservation and management measures.	1. Identify stakeholders				Implementation stage											
	2. Provide management knowledge (awareness and education aspect)															
	3. Formed a community based management plan															
	4. Set up core management group															
	5. Process of transferring the implementation															
b) Encourage the participation of Government institutions, non-governmental organisations, the private sector and the general community (e.g. students, volunteers, fishing communities, local communities) in research and conservation efforts.	1. Identify stakeholders				Implementation stage											
	2. Provide management knowledge (awareness and education aspect)															
	3. Formed a committee to formulate management plan															
	4. Set up core management group															
	5. Process of transferring the implementation															

Activity	2009				2010				2011				2012				
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	
c) Implement, where appropriate, incentive schemes to encourage public participation (e.g. T-Shirts for tag returns, public acknowledgement, certificates).	1.	Identify stakeholders				Implementation stage											
	2.	Provide management knowledge (awareness and education aspect)															
	3.	Formed a community based management plan															
	4.	Set up core management group															
	5.	Process of transferring the implementation															
d) Develop structured volunteer program to assist monitoring work, data collection and research activities.	1.	Identify management/ research each area				Implementation stage											
	2.	Provide management knowledge (awareness and education aspect)															
	3.	Formed a committee to formulate research/ management plan for volunteers															
	4.	Set up core management/ research group															
	5.	Process of transferring the implementation															

Objective 5:

Enhance national, regional and international cooperation

Programme

- 5.1 Collaborate with and assist signatory and non-signatory states to regulate and share information on trade, to combat illegal trade, and to cooperate in enforcement activities relating to sea turtle products.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Review at a national level compliance with obligations under CITES relating to trade in marine turtles, their eggs, parts or products.																
b) Facilitate better compliance with CITES through training of relevant authorities in cooperation with other signatory States, the CITES Secretariat and other relevant organizations.																
c) Identify routes of international illegal trade through monitoring, and seek cooperation to take action to prevent, deter and, where possible, eliminate illegal trade.																

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
d) Exchange and discuss information on compliance and trade issues at regular intervals, such as through annual reporting to the MoU Secretariat and at meetings of the signatory States.			█				█				█				█	
e) Identify, prevent, deter and, where possible, eliminate domestic illegal trade through monitoring, implementation of legislation, identification of gaps in enforcement capabilities in each state, and training of enforcement officers.	Identify															
	█															
	Eliminate				Monitoring											
	█				█											
Enforcement issues																
█																



Programme

5.2 Enhance mechanisms for cooperation and promote information exchange.

Activity	2009				2010				2011				2012				
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	
a) Identify and strengthen existing mechanisms for cooperation at the sub-regional level.	Initiates Formation of Committee					XX				XX					XX		
b) Develop networks for cooperative management of shared populations, within or across sub-regions, and, where appropriate, formalise cooperative management arrangements.	X	X	X	X		XX				XX					XX		
c) Cooperate where possible in the establishment of transboundary marine protected areas using ecological rather than political boundaries.					(Meet) XO		(Meet) XO		(Meet) XO		(Meet) XO		(Meet) O				(Meet) O
d) Establish relationships with regional fisheries bodies with a view to obtaining data on incidental capture and encourage them to adopt sea turtle conservation measures within EEZs and on the high seas.	Initiate set-up of website					Web site	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
						Upd	Upd	Upd	Upd	Upd	Upd	Upd	Upd	Upd	Upd	Upd	Upd
						tab- list	ata	ata	ata	ata	ata	ata	ata	ata	ata	ata	ata
							info	info	info	info	info	info	info	info	info	info	info

- X - Establish Regional Committee on cooperation/information exchange
- XX - Yearly meeting (alternate within members country)
- XXX - Establish website (identify lead country)
- XO - TWG. issues on information gathering and exchange (meeting alternate within members country)

1. Establish regional committee

- 1.1. Initiates establishment of committee
- 1.2. Formalize MoU/Agreement
- 1.3. Identify TOR/Common interests/secretariate
- 1.4. Yearly meeting
- 1.5. Establish TWG

2. TWG

- 1.1. Formalize TOR
- 1.2. Identify common interests on technical development projects.
- 1.3. Meets 2x/year

3. Web-site

- 3.1 Identify lead country/secretariate
- 3.2 Procure hardware
- 3.3 Set-up web-site center/officers/human resources or
- 3.4 Individual members country establish on web-site



Programme

5.3 Build capacity to strengthen conservation measures

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Identify needs for capacity-building in terms of human resources, knowledge and facilities.	■	■	■	■												
b) Provide training (e.g. through workshops) in sea turtle conservation and management techniques to relevant agencies, individuals and local communities.	■	■			■	■			■	■			■	■		
c) Coordinate training programmes and workshops.				■				■				■				■
d) Develop partnerships with universities, research institutions, training bodies and other relevant organizations.	■		■		■		■		■		■		■		■	

- a. Organize meeting/workshop capacity-building
 - i. Mac - human resources
 - ii. Jun - knowledge
 - iii. September - facilities
 - iv. Finalize all the terms on December 2009
- b. Provide training in March and June every year 2009- 2012 in March and June.
- c. Coordinate training programmes and work in the end of the year not landing season.
- d. Organize meeting between related agencies and review the progress on research institute on March and September from 2009- 2012.

Programme

5.4 Strengthen and improve enforcement of conservation legislation

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Review domestic policies and laws to address gaps or impediments to sea turtle conservation.																
b) Harmonise all state legislation according to the new legislation for sea turtle.																
c) Cooperate in law enforcement to ensure compatible application of laws across and between jurisdictions (including through bilateral/multilateral agreements and intelligence sharing).																
d) Improve enforcement mechanism in the protection of sea turtles and their habitats.																

- | | | |
|----|--------------------|---|
| a. | Mac-Dec 2009 | - Review |
| | Mac-June 2010 | - AG |
| | Sep-Dec 2010 | - Review |
| | Mac- Sep 2011 | - Parliament |
| b. | June 2009 | - Meeting with state |
| | Dec 2009 | - Meeting with state government to harmonise all state legislation according new legislation of sea turtle. |
| | Mac- June 2010 | - Review |
| | Sep 2010 | - Finalize |
| | Mac 2010-Sep 2012 | - Formalize agreement with state government and Implementation |
| | Dec 2012 | - Review |
| c. | Mac 2009,2010,2012 | - Annual meeting with enforcement to ensure compatible application. |
| d. | Mac 2009 | - Meeting with related agencies to improve enforcement mechanism in the protection of sea turtles and their habitats (human resources, technical etc) |
| | Jun-Sep 2009 | - Proposal and finalize |
| | Dec 2009 -Dec 2012 | - Implementation and monitoring |



Objective 6:

Promote implementation of NPOA for sea turtles.

Programme

- 6.1 Improve coordination among government and non-government sectors in the conservation of sea turtles and their habitats.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Establishment of the Malaysian Sea Turtle Working Group (MSTWG).	█															
b) Review the roles and responsibilities of government agencies related to the conservation and management of sea turtles and their habitats.		█														



Programme

6.2 Seek funding to support the implementation of the NPOA for sea turtles.

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
a) Prioritise research, conservation and management activities for funding.																
b) Explore funding options with the Government and other donors such as the Asian Development Bank, World Bank, UNDP, European Union, UNEP, GEF, etc.																
c) Solicit funding and other contributions from industries that have impacts on sea turtles and their habitats (e.g. fisheries, tourism, oil industry, real estate) and provide incentives to the industries.																
d) Explore the use of economic instruments for the conservation of seaturtles and their habitats.																

Activity	2009				2010				2011				2012			
	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec	Mac	Jun	Sep	Dec
e) Approach the private sector, foundations and NGOs that may have an interest in funding activities in particular countries to catalyse the creation of a small grants fund.																
f) Establishment of National and State Level Turtle Trust Fund.																
g) Establishment of National Turtle Corporation.																



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