Malaysia

GENERAL INFORMATION

Agency or institution primarily responsible for the preparation of this report:

THIS UNOFFICIAL REPORT IS SUBJECT TO FURTHER REVIEW AND COMPLETION BY THE MALAYSIAN FOCAL POINT.

Other agencies, institutions, or NGOs that have provided input:

Turtle Conservation Centre, Terengganu, Malaysia
Sarawak Forestry Corporation
WWF Malaysia

Designated Focal Point:

Mr. Gulamsarwar bin Jan Mohammad
Director
Licensing and Resource Management Malaysia
Level 1, Tower Block 4G2, Wisma Tani, Precinct 4,
Federal Government Administrative Centre,
62628 Putrajaya, Malaysia
Tel: +603-8870 4406 / ext: 4407
Fax: +603-8889 1233
E-mail: gulamsawar@dof.gov.my

Memorandum signed: 19 September 2011

Effective Date: 1 December 2011

This report was last updated: 12 December 2011

OBJECTIVE I. REDUCE DIRECT AND INDIRECT CAUSES OF MARINE TURTLE MORTALITY

1.1 Introduction to marine turtle populations and habitats, challenges and conservation efforts. [INF]

Malaysia is comprised of Peninsular Malaysia, located in the southern-most part of the Malay Peninsula; and East Malaysia (Sabah and Sarawak) on the island of Borneo.

Four species of marine turtles (leatherback, green turtle, hawksbill, and olive ridley) are found in Malaysia. 1 Current statistics indicate that the leatherback and olive ridley turtle populations are nearing extinction in Malaysia; while other species, with the exception of the green turtles of the Sabah Turtle Islands, are in steady decline.

The leatherback turtle (Dermochelys coriacea) nests mainly along a 15 km stretch of beach centred in Rantau Abang, Terengganu. Records show that nesting density in the 1950's exceeded 10,000 but have plummeted to near zero in recent years. When once Rantau Abang was regarded as one of the world's most important nesting sites for leatherbacks, the 99.9% decline has brought the species to extinction in Malaysia.

The olive ridley turtle (Lepidochelys olivacea) nests in northern Terengganu, Penang, possibly Perak and Sarawak. It has suffered the same fate as the leatherback turtles. In the mid 1980s, 500 nests were deposited annually in Terengganu, but the species has not been seen nesting at Terengganu since 2005. Notwithstanding, remnant numbers may still occur in Penang and Perak and Sarawak.

The hawksbill turtle (Eretmochelys imbricata) nests in the Sabah Turtle Islands, Melaka and to a lesser degree in Redang Island, Terengganu. Declines have not been as dramatic as the leatherback and olive ridley turtles. In Sabah, where current nesting density is registered at around 450 nests per annum, a 25% decline has been registered over

the last ten years. According to available data, the Melaka nesting density has fluctuated from 208 – 471 nests per annum. However it is not possible to comment on the trend as yearly nesting data is not available. In Terengganu, a 70% decline has been registered in the last 20 years. Currently, about a dozen nests are deposited annually.

The green turtle (Chelonia mydas) is a widely distributed species with significant nesting populations occurring in Sabah, Sarawak and Terengganu. The population in Sabah staged a recovery from 1987-2000. An average of 6549 nests per annum has been recorded from 2004-2008, compared to the 9071 annual nests deposited from 1994-1998. In 2009, over 13,000 nests were deposited. The Sarawak population has declined from over 13,000 nests per year in the 1950s to about 2,000 in recent years, giving a decline of 85%. Nesting data for Terengganu from the mid 1980s to 2008 show a decline of 25% from over 3,000 nests in the 1980s to the average of 2355 nests annually from 2004-2008.

Population decline is attributed to a long history of egg exploitation, poaching of local populations by illegal fishing boats from neighbouring countries, fishing mortality (incidental catch, ghost fishing and destructive fishing methods), loss of nesting and marine habitats, marine pollution, and negative impacts of tourism and climate change.

Although Marine turtle conservation in Malaysia has occurred for decades, it needs to be upgraded through education, legislation, and coordinated among the various states and agencies of Malaysia. Conservation efforts through development of hatcheries were started in Terengganu in 1961, Kelantan in 1964, Pahang in 1971, Malacca in 1987 and Perak in 1990. Existing egg incubation programmes should be expanded and in-situ incubation of nests should be more widely practiced where possible.

Most of the major nesting beaches in Malaysia are now protected as sanctuaries where commercial egg collection is prohibited. In some of these sanctuaries, especially in Terengganu, more stringent supervision of the management of the sanctuaries is needed. Commercial sale of turtle eggs should be banned throughout Malaysia to put a stop to the rampant smuggling of eggs from East Malaysia into West or Peninsular Malaysia and to curb the appetite for turtle eggs among many Malaysians.

Fisheries regulations need review and up-dating. Currently, several regulations are in place: Fisheries (Prohibition of Methods of Fishing) Regulations 1990 (bans the use of drift nets/ gillnets with mesh sizes greater than 10 inches); Fisheries (Prohibited Area) Regulations 1991 (waters off Merchang to Kampung Kuala Abang (Tanjung Jara, Terengganu) declared a prohibited area).

Poaching of local populations by foreign vessels has emerged as one of the most serious threats that needs to be addressed.

Through the BOBLME project, Malaysia is participating with neighbouring countries to improve marine turtle conservation.

Source:

Abu Talib, A., G.H. Tan and Y. Abd. Hamid. 2003. Overview of the national fisheries situation with emphasis on the demersal fisheries off the West Coast of Peninsular Malaysia, p. 833 - 884. In G. Silvestre, L. Garces, I. Stobutzki, M. Ahmed, R.A. Valmonte-Santos, C. Luna, L. Lachica-Ali?o, P. Munro, V. Christensen and D. Pauly (eds.) Assessment, Management and Future Directions for Tropical Coastal Fisheries in Asian Countries. WorldFish Center Conference Proceedings 67, 1 120 p.

Chan, E.H. 2004. Turtles in Trouble. Siri Syarahan Inaugural KUSTEM : 7 (2004). Kolej Universiti Sains dan Teknologi Malaysia (now known as Universiti Malaysia Terengganu). ISBN 983-2888-07-7. Pdf available at :http://www.turtleconservationcentre.org/wp-content/uploads/TurtlesInTrouble.pdf

Chan, E. H. 2006. Marine turtles in Malaysia: On the verge of extinction? Aquatic Ecosystem Health & Management 9 (2): 175-184.

Chan, E.H. 2009. Population trends in South East Asian sea turtles. Pp 11-12 and 33-42 In: Chan, E.H., N. Pilcher and K. Hiew. Report of the Workshop on Regional Cooperation to Address Direct Capture of Sea Turtles 1-3 June 2009, Kuala Terengganu. Penerbit UMT, Universiti Malaysia Terengganu.

Chan, E. H. 2010. Malaysian turtles in crisis. Opinion paper written for WWF Malaysia in support of the Memorandum to the Most Honourable Prime Minister of Malaysia, Dato' Sri Mohd Najib bin Tun Abdul Razak Re Enactment of Comprehensive Federal Legislation for Turtles.

Chan, E.H., N. Pilcher and K. Hiew. 2009. Report of the Workshop on Regional Cooperation to Address Direct Capture of Sea Turtles 1-3 June 2009, Kuala Terengganu. Penerbit UMT, Universiti Malaysia Terengganu.

Liew, H. C. 2002. Status of marine turtle conservation and research in Malaysia. Pp. 51-56. In: Proceedings of the Western Pacific Sea Turtle Cooperative Research and Management Workshop, February 5-8, 2002, Honolulu, Hawaii, USA.

Pilcher, N. J. 2010. Threats to marine turtles in Malaysia. Opinion paper written for WWF Malaysia in support of the

Memorandum to the Most Honourable Prime Minister of Malaysia, Dato' Sri Mohd Najib bin Tun Abdul Razak Re Enactment of Comprehensive Federal Legislation for Turtles.

Shanker, K. 2004. Marine turtle status and conservation in the Indian Ocean. Papers Presented at the Expert Consultation on Interactions between Sea Turtles and Fisheries within an Ecosystem Context, Rome, 9-12 March 2004. FAO Fisheries Report No. 738, Supplement, p. 85-134.

1.2.1 Describe any protocol or approaches practiced in your country, which you consider exemplary, for minimising threats to marine turtle populations and their habitats, which may be suitable for adaptation and adoption elsewhere. [BPR]

• Conversion of major nesting beaches into sanctuaries where eggs collection is prohibited.
• Involving local NGOs and university groups to help manage some of the nesting sanctuaries
• Creating volunteer programs to help monitor nesting beaches and help make marine turtle conservation self-sufficient.

1.3.1 Describe any socio-economic studies or activities that have been conducted among communities that interact with marine turtles and their habitats. [BPR, INF]

A study of consumption and trade of marine turtle egg in Malaysia (WWF 2009) was focused in the vicinity of Terengganu but the results may be relevant to other areas of the country, at least until further studies are conducted. Eggs are regularly consumed by a wide spectrum of the population. It appears that the market is very large. Typically eggs are obtained from re-sellers but cost plays an important part in use.

See: WWF 2009. Survey of Marine Turtle Egg Consumption and Trade in Malaysia Report prepared by TRAFFIC Southeast Asia for WWF-Malaysia March 2009 WWF – World Wide Fund for Nature (formerly World Wildlife Fund), Petaling Jaya, Malaysia.

1.3.2 Which of these adverse economic incentives are underlying threats to marine turtles in your country? [TSH]

☐ High prices earned from turtle products relative to other commodities

☐ Lack of affordable alternatives to turtle products

■ **Ease of access to the turtle resource (eg. by virtue of proximity or ease of land / water access)**

☐ Low cost of land near nesting beaches

☐ Low penalties against illegal harvesting

☐ Other1:

☐ Other2:

☐ Other3:

☐ None of the above or Not Applicable

1.3.3 Has your country has taken any measures to try to correct these adverse economic incentives? [BPR]

☐ YES ■ NO ☐ NOT APPLICABLE (no adverse economic incentives exist)

1.4.1 Indicate, and describe in more detail, the main fisheries occurring in the waters of your country, as well as any high seas fisheries in which flag vessels of your country participate, that could possibly interact with marine turtles. [INF]

a) Shrimp trawls: ■ YES ☐ NO

The otter trawl net is the main fishing gear used to catch a large number of demersal finfish from deep water and penaeid prawn resources, particularly on the west coast of Peninsular Malaysia.

b) Set gill nets: ■ YES ☐ NO

Set gill nets are used by the coastal fishermen mainly catch demersal fish species like marine catfish and jewfish.

c) Anchored Fish Aggregating Devices (FADs):

No information available

d) Purse seine (with or without FADs): ■ YES ☐ NO

The purse seine net is used to catch pelagic fishes. Two main types of purse-seine nets are used. Small pelagic fish are caught using the fish purse seine (operated with or without fish aggregating devices (FADs)) and anchovies are caught using the anchovy purse-seine.

e) Longline (shallow or deepset): ■ YES ☐ NO

Longlines are used in both shallow and deep water and are quite effective in catching turtles.

f) Driftnet: ■ YES ☐ NO

Drift and gill nets are used in the coastal fisheries. Two main types are used: one for finfish and trammel nets for penaeid prawns. Coastal fishermen use set gill nets to catch demersal fish species. Large-meshed bottom gillnets used to catch stingrays are very destructive as they are effective in catching marine turtles that often drown in the nets.

g) Other1:

Other traditional fishing gear employed by the coastal fishermen include hook-and-line, bag nets, lift nets, seine nets, traps, barrier nets and scoop nets.

h) Other2:

The deep-sea fishing vessels operate beyond 30 nautical miles from the shoreline. The fishing vessels are fairly large. Basically, commercial gear such as trawls, purse seines and hook-and line are used.

☐ **None of the above**

1.4.2 Please indicate the relative level of fishing effort and perceived impact of each of the above fisheries on marine turtles (e.g. in terms of by-catch). [TSH]

a) Shrimp trawls

Fishing effort:

■ **RELATIVELY HIGH** ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Perceived Impact:

■ **RELATIVELY HIGH** ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Source:

b) Set gill nets

Fishing effort:

☐ RELATIVELY HIGH ■ **MODERATE** ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Perceived Impact:

☐ RELATIVELY HIGH ■ **MODERATE** ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Source:

c) Anchored Fish Aggregating Devices (FADs)

Fishing effort:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ■ **UNKNOWN**

Perceived Impact:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ■ **UNKNOWN**

Source:

d) Purse seine (with or without FADs)

Fishing effort:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ■ **UNKNOWN**

Perceived Impact:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ■ **UNKNOWN**

Source:

e) Longline (shallow or deepset)

Fishing effort:

☐ RELATIVELY HIGH ■ **MODERATE** ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Perceived Impact:

☐ RELATIVELY HIGH ■ **MODERATE** ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Source:

f) Driftnet

Fishing effort:

☐ RELATIVELY HIGH ■ **MODERATE** ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Perceived Impact:

☐ RELATIVELY HIGH ■ **MODERATE** ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Source:

g) Other1 (from 1.4.1): **Traditional fishing gears**

Fishing effort:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ■ **UNKNOWN**

Perceived Impact:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ■ **UNKNOWN**

Source:

h) Other2 (from 1.4.1): **The deep-sea fishing vessels**

Fishing effort:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ■ **UNKNOWN**

Perceived Impact:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ■ **UNKNOWN**

Source: Based on Country Profile Malaysia, Project Global (Global bycatch assessment of long-lived species).

Marine turtle by-catch is a significant problem (at least in some areas); the impact of fishing efforts also varies by species by area.

1.4.3 Describe any illegal fishing that is known to occur in or around the waters of your country that may impact marine turtles. Describe the measures being taken to deal with this problem and any difficulties encountered in this regard. [TSH]

Illegal use of large-meshed bottom gill-nets for catching stingrays that frequently catch turtles

Illegal harvesting of marine turtles by foreign fishing vessels (esp from Hainan and Vietnam) in the territorial waters of Malaysia

Measures: patrols by enforcement agencies, but need to be stepped up. Turtles are caught in remote areas and perpetrators often escape detection and apprehension.

1.4.4 Which of the following methods are used by your country to minimise incidental capture/mortality of marine turtles in fishing activities? [IND]

a) **Appropriate handling** of incidentally caught turtles (e.g. resuscitation or release by fishers using equipment such as de-hooking, line cutting tools and scoop nets)

☐ YES ■ **NO** ☐ NOT APPLICABLE

b) **Devices that allow the escape of marine turtles** (e.g. turtle excluder devices (TEDs) or other measures that are comparable in effectiveness)

■ **YES** ☐ NO ☐ NOT APPLICABLE

But not to any significant extent. TEDs are required but regulations are weakly enforced (Pitcher, 2006).

c) **Measures to avoid encirclement** of marine turtles in purse seine fisheries

☐ YES ■ **NO** ☐ NOT APPLICABLE

d) **Appropriate combinations** of hook design, type of bait, depth, gear specifications and fishing practices

☐ YES ☐ NO ☐ NOT APPLICABLE

e) **Monitoring and recovery of fish aggregating devices** (FADs)

☐ YES ■ **NO** ☐ NOT APPLICABLE

f) **Net retention and recycling schemes**

☐ YES ☐ NO ☐ NOT APPLICABLE

g) **Spatial and temporal control of fishing** (e.g. seasonal closures of fishing activities)

■ **YES** ☐ NO ☐ NOT APPLICABLE

"For the purpose of regulating the fishing activities the marine waters are divided into four fishing zones (FAO 2009). "For each Zone the optimum number of fishing vessels has been determined based on estimation of maximum sustainable yield. The issuance of new fishing licences for the inshore waters has been suspended. A limited number of licences is still being issued annually to offshore vessels" (FAO 2009).

"A series of marine parks has been established in the coastal waters. Fishing within two n. miles from the marine parks boundaries is prohibited. Surplus fishermen are diverted to the tourism sector, ferrying tourists to the parks, acting as tour or dive guides." (FAO 2009)

FAO (2009). Fishery and Aquaculture Country Profiles: Malaysia. FAO. FID/CP/MYS (On-line).

h) **Effort management control**

☐ YES ☐ NO ☐ NOT APPLICABLE

☐ Other (list and explain):

☐ None of the above

1.4.5 Which of the following programmes has your country developed - in consultation with the fishing industry and fisheries management organisations - to promote implementation of measures to minimise incidental capture and mortality of turtles in national waters and in the high seas? [IND]

Onboard observer programmes

■ **YES** ☐ NO ☐ NOT APPLICABLE

But limited.

There is no reference to observers in the literature on Malaysian fisheries. No observer scheme is currently in place in Malaysian fisheries according to Flewwelling and Hosch (2006).

Source: Flewwelling, P. and Hosch, G. (2006) Country Review: Malaysia. In: De Young, C. (ed.) Review of the state of world marine capture fisheries management: Indian Ocean. FAO FisheriesTechnical Paper. No. 488. Rome, FAO. 2006. 458p.

Vessel monitoring systems

■ **YES** ☐ NO ☐ NOT APPLICABLE

But limited.

Inspections (i.e. at sea, in port, at landing sites)

☐ YES ■ **NO** ☐ NOT APPLICABLE

Training programmes / workshops to educate fishers

■ **YES** ☐ NO ☐ NOT APPLICABLE

"The Department of Fisheries conducts hands-on courses, both long-term and short- term on various aspects of fishing technologies, aquaculture and fish processing" (FAO 2009).

Informative videos, brochures, printed guidelines etc.

☐ YES ☐ NO ☐ NOT APPLICABLE

Unknown

Other (list and explain):

☐ YES ☐ NO ☐ NOT APPLICABLE

☐ **None of the above**

1.4.6 Are the mitigation measures described in 1.4.4 and 1.4.5, periodically reviewed and evaluated for their efficacy? [SAP]

☐ YES ☐ NO ☐ UNSURE

1.4.7 In your country, what types of data collection, research and development have been undertaken to support the reduction of marine turtle incidental catch (while taking into consideration the impact of various mitigation measures on other species)? [SAP]

1.4.8 Has your country exchanged information and provided technical assistance (formally or informally) to other Signatory States to promote the activities described in 1.4.4, 1.4.5 and 1.4.7 above? [SAP]

☐ YES ■ **NO** ☐ UNSURE

Malaysia is not an IOSEA Signatory State but is involved in the BOBLME project.

1.4.9 What legislative and practical measures has your country taken in support of UN General Assembly Resolution 46/215 concerning the moratorium on the use of large-scale driftnets? [SAP]

None

1.5.1 Does your country have legislation to prohibit direct harvest and domestic trade in marine turtles, their eggs, parts and products; and to protect important turtle habitats? [IND]

■ **YES** ☐ NO ☐ UNSURE

Control of fishing gear and fishing areas through legislation as well as regulation of direct take:

Wildlife Protection Act (1990-Federal); Fisheries Regulations (1990-Prohibition of method of fishing, Federal); Wildlife Protection Ordinance (1999, Article 26(3)-Federal); Fisheries Regulations (1991-Prohibited Areas, Rantau Abang); Fisheries Rules (1984-Turtles and turtle eggs, Johor); Fisheries Rules (1989-Turtles and turtle eggs, Malacca); Wildlife Protection Ordinance (1990-Sarawak); Amendments to the Turtle Enactment 1951 (1987, 1989-Sabah). Signed the Association of South East Asian Nations (ASEAN) Sea Turtle Memorandum of Understanding (MoU) in 1997.

Based on :
Shanker, K. 2004. Marine turtle status and conservation in the Indian Ocean. Papers Presented at the Expert Consultation on Interactions between Sea Turtles and Fisheries within an Ecosystem Context, Rome, 9-12 March 2004. FAO Fisheries Report No. 738, Supplement, p. 85-134.

Survey of Marine Turtle Egg Consumption and Trade in Malaysia Report prepared by TRAFFIC Southeast Asia for WWF-Malaysia March 2009

1.5.2 Which, among the following list, are economic uses and cultural values of marine turtles in your country? Please rate the relative prevalence / importance of each consumptive or non-consumptive use. [INF]

USES / VALUES	RELATIVE PREVALENCE / IMPORTANCE
Meat consumption	
☐ YES ■ **NO**	☐ HIGH ☐ MODERATE ☐ LOW ☐ UNKNOWN
Egg consumption	
■ **YES** ☐ NO	■ **HIGH** ☐ MODERATE ☐ LOW ☐ UNKNOWN
Shell products	
☐ YES ■ **NO**	☐ HIGH ☐ MODERATE ☐ LOW ☐ UNKNOWN
Fat consumption	
☐ YES ■ **NO**	☐ HIGH ☐ MODERATE ☐ LOW ☐ UNKNOWN
Traditional medicine	
■ **YES** ☐ NO	☐ HIGH ☐ MODERATE ☐ LOW ☐ UNKNOWN
Some use of eggs, as medication.	
Eco-tourism programmes	
■ **YES** ☐ NO	☐ HIGH ■ **MODERATE** ☐ LOW ☐ UNKNOWN
Cultural / traditional significance	
☐ YES ■ **NO**	☐ HIGH ☐ MODERATE ☐ LOW ☐ UNKNOWN
Other	

1.5.3 Please indicate the relative level and impact of traditional harvest on marine turtles and their eggs. [IND, TSH]

Level of harvest:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Impact of harvest:

☐ RELATIVELY HIGH ☐ MODERATE ☐ RELATIVELY LOW ☐ NONE ☐ UNKNOWN

Source of information:

Egg harvest has varied over time and at different beaches. On some beaches nearly every egg was removed; whereas on others removal was not complete. The cumulative impact of harvest (in conjunction with other sources of mortality) has been to decrease and deplete the recruitment into the reproductive part of the population.

1.5.4 Have any domestic management programmes been established to limit the levels of intentional harvest? [SAP]

☐ YES ☐ NO ☐ UNKNOWN

Some protected areas have been established where egg collection is prohibited and some areas of restricted access for fishing vessels have also been established. In some areas enforcement is a problem.

1.5.5 Describe any management agreements negotiated between your country and other States in relation to sustainable levels of traditional harvest, to ensure that such harvest does not undermine conservation efforts. [BPR]

Malaysia is a party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Convention on Biological Diversity (CBD).

1.6.1 First, select one of the options at left to indicate whether or not your country has any of the following measures in place to minimise the mortality of eggs, hatchlings and nesting females. If yes, then estimate the relative effectiveness of these measures. [IND, SAP]

MEASURES	RELATIVE EFFECTIVENESS
Monitoring / protection programmes	
■ **YES** ☐ NO ☐ N/A	☐ EXCELLENT ☐ GOOD ■ **LOW** ☐ UNKNOWN
Education / awareness programmes	
■ **YES** ☐ NO ☐ N/A	☐ EXCELLENT ☐ GOOD ■ **LOW** ☐ UNKNOWN
Egg relocation / hatcheries	
■ **YES** ☐ NO ☐ N/A	☐ EXCELLENT ■ **GOOD** ☐ LOW ☐ UNKNOWN
Predator control	
■ **YES** ☐ NO ☐ N/A	☐ EXCELLENT ☐ GOOD ☐ LOW ■ **UNKNOWN**
Vehicle / access restrictions	
■ **YES** ☐ NO ☐ N/A	☐ EXCELLENT ☐ GOOD ■ **LOW** ☐ UNKNOWN
Removal of debris / clean-up	

■ **YES** ☐ NO ☐ N/A ☐ EXCELLENT ■ **GOOD** ☐ LOW ☐ UNKNOWN

Re-vegetation of frontal dunes

☐ YES ■ **NO** ☐ N/A ☐ EXCELLENT ☐ GOOD ☐ LOW ☐ UNKNOWN

Building location/design regulations

☐ YES ■ **NO** ☐ N/A ☐ EXCELLENT ☐ GOOD ☐ LOW ☐ UNKNOWN

Light pollution reduction

☐ YES ■ **NO** ☐ N/A ☐ EXCELLENT ☐ GOOD ☐ LOW ☐ UNKNOWN

Other (list and rate them)

☐ YES ☐ NO ☐ N/A

1.6.2 Has your country undertaken any evaluation of its nest and beach management programmes? [SAP]

☐ YES ■ **NO** ☐ NOT APPLICABLE

OBJECTIVE II. PROTECT, CONSERVE AND REHABILITATE MARINE TURTLE HABITATS

2.1.1 What is being done to protect critical habitats *outside* of established protected areas? (NB: It is assumed that legislation relating to established protected areas will have been described in Section 1.5.1) [BPR, SAP]

Most important marine turtle habitats outside protected areas are not protected.

2.1.2 Are assessments routinely made of the environmental impact of marine and coastal development on marine turtles and their habitats? [IND, SAP]

☐ YES ■ **NO** ☐ NOT APPLICABLE

No information available at this time.

2.1.3 Is marine water quality (including marine debris) monitored near turtle habitats? If yes, describe the nature of this monitoring and any remedial measures that may have been taken. [SAP]

☐ YES ■ **NO** ☐ NOT APPLICABLE

No information available at this time.

2.1.4 Are measures in place to prohibit the use of poisonous chemicals and explosives? [SAP]

■ YES ☐ NO ☐ NOT APPLICABLE

But enforcement is poor.

2.2.1 Are efforts being made to recover degraded coral reefs? If yes, give details (location, duration, effectiveness, lessons learned, future plans etc). [IND, SAP]

☐ YES ■ **NO** ☐ NOT APPLICABLE (no degraded coral reefs)

No information available at this time.

2.2.2 Are efforts being made to recover degraded mangrove habitats that are important for turtles? If yes, give details (location, duration, effectiveness, lessons learned, future plans etc.) [IND, SAP]

☐ YES ■ **NO** ☐ NOT APPLICABLE (no mangrove habitats important for turtles)

No information available at this time.

2.2.3 Are efforts being made to recover degraded sea grass habitats? If yes, give details (location, duration, effectiveness, lessons learned, future plans etc.). [IND, SAP]

☐ YES ■ **NO** ☐ NOT APPLICABLE (no degraded sea grass habitats)

No information available at this time.

OBJECTIVE III. IMPROVE UNDERSTANDING OF MARINE TURTLE ECOLOGY AND POPULATIONS THROUGH RESEARCH, MONITORING AND INFORMATION EXCHANGE

3.1.1 Give a list of available literature that includes baseline information from studies carried out in your country on marine turtle populations and their habitats. [INF]

Chan, E. H. 2010. Malaysian turtles in crisis. Opinion paper written for WWF Malaysia in support of the Memorandum to the Most Honourable Prime Minister of Malaysia, Dato' Sri Mohd Najib bin Tun Abdul Razak Re Enactment of Comprehensive Federal Legislation for Turtles.

Chan, E.H. 2009. Population trends in South East Asian sea turtles. Pp 11-12 and 33-42 in: Chan, E.H., N. Pilcher and K. Hiew. Report of the Workshop on Regional Cooperation to Address Direct Capture of Sea Turtles 1-3 June 2009, Kuala Terengganu. Penerbit UMT, Universiti Malaysia Terengganu.

Chan, E.H., N. Pilcher and K. Hiew. 2009. Report of the Workshop on Regional Cooperation to Address Direct Capture of Sea Turtles 1-3 June 2009, Kuala Terengganu. Penerbit UMT, Universiti Malaysia Terengganu.

Chan, E.H. 2004. Turtles in Trouble. Siri Syarahan Inaugural KUSTEM : 7 (2004). Kolej Universiti Sains dan Teknologi Malaysia (now known as Universiti Malaysia Terengganu). ISBN 983-2888-07-7. Pdf available at :http://www.turtleconservationcentre.org/wp-content/uploads/TurtlesInTrouble.pdf

Chan, E. H. (1988). "A note on the feeding of leatherback (Dermochelys coriacea) hatchlings." Pertanika 11(1): 147-149.

Chan, E. H. (1989). "White spot development, incubation and hatching success of leatherback turtle (Dermochelys coriacea) eggs from Rantau Abang, Malaysia." Copeia 1989(1): 42-47.

Chan, E. H. (2006). "Marine turtles in Malaysia: On the verge of extinction?" Aquatic Ecosystem Health and Management 9: 175-184.

Chan, E. H. (2010). "A 16-year record of green and hawksbill turtle nesting activity at Chagar Hutang Turtle Sanctuary, Redang Island, Malaysia " Indian Ocean Turtle Newsletter 12(1).

Chan, E. H., J. Joseph, et al. (1999). "A study on the hawksbill turtles (Eretmochelys imbricata) of Pulau Guilisaan, Turtle Islands Park, Sabah, Malaysia." Sabah Parks Nature Journal 2: 11-22.

Chan, E. H. and H. C. Liew (1988). "A review of the effects of oil-based activities and oil pollution on sea turtles." Proceedings of the 11th Annual Seminar of the Malaysian Society of Marine Sciences 1988: 159-167.

Chan, E. H. and H. C. Liew (1995). "Incubation temperatures and sex-ratios in the Malaysian leatherback turtle (Dermochelys coriacea)." Biological Conservation 1995(74): 169-174.

Chan, E. H. and H. C. Liew (1999). "Hawksbill turtles, Eretmochelys imbricata, nesting on Redang Island, Terengganu, Malaysia from 1993-1997." Chelonian Conservation and Biology 3(2): 326-329.

Chan, E. H., H. C. Liew, et al. (1988). "The Incidental Capture of Sea Turtles in Fishing Gear in Terengganu, Malaysia." Biological Conservation 43: 1-7.

Chan, E. H., H. U. Salleh, et al. (1985). "Effects of handling on hatchability of eggs of the leatherback turtle, Dermochelys coriacea (L.)." Pertanika 8(2): 265-271.

Chan, E. H. and C. R. Shepherd (2002). "Marine Turtles: the scenario in southeast Asia." Tropical Coasts.

Chan, E. H. and S. E. Solomon (1989). "The structure and function of the eggshell of the leatherback turtle (Dermochelys coriacea) from Malaysia, with notes on infective fungal forms." Animal Technology, 40 (2), pp. 91-102.

Chan, E.-H. a. H.-C. L. (1996). "Decline of the leatherback population in Terengganu, Malaysia, 1956-1995." Chelonian Conservation and Biology 2(2): 196-203.

Chua, T. H. (1988). "Nesting population and frequency of visits in (Dermochelys coriacea) in Malaysia." Journal of Herpetology 22(2): 192-207.

Chua, T. H. and J. I. Furtado (1988). "Nesting frequency and clutch size in (Dermochelys coriacea) in Malaysia." Journal of Herpetology 22(2): 208-218.

de Silva, G. S. (1982). "Protected areas and turtle eggs in Sabah, East Malaysia." Proceedings of the World Congress on National Parks, Indonesia 1982(11-22 Oct): 154-159.

IOSEA (2005). "Caring for the Turtles of Redang Island, Malaysia." IOSEA

Leh, C. (1989). "The green turtle, (Chelonia mydas) (L.) in Sarawak: is there a future?" Proceedings of the 12th Annual Seminar of the Malaysian Society of Marine Sciences 1989: 219-225.

Liew, H. and E. Chan (1994). Biotelemetric studies on the green turtles of Pulau Redang, Malaysia. Proceedings of the Fourteenth Annual Symposium on Sea Turtle Biology and Conservation. K. A. C. Bjorndal, A. B. C. Bolten, D. A. C. Johnson and P. J. C. Eliazar. Miami, U.S. Department of Commerce National Marine Fisheries Service: 75-75.

Liew, H. C., E. H. Chan, et al. (1995). "Satellite tracking data on Malaysian Green Turtle migration." Rend. Fis. Acc. Lincei 6: 239-246.

Limpus, C. (1993). "Recommendations for conservation of marine turtles in peninsula Malaysia. Report to the Department of Fisheries, Mininstry of Agriculture, Malaysia."

Mortimer, J. A. (1988). "Recommendations for a national strategy on sea turtle conservation in Malaysia-with suggestions for management of the nesting beach at Ratau Aban, Terengganu and of the turtle hatchery at Pulau Besar, Melaka. Unpublished Manuscript." A Report to WWF/Malaysia and WWF/USA: 1-11.

Mortimer, J. A. (1990). "Recommendations for the management of the green turtle (Chelonia mydas) population nesting at the turtle islands of Sarawak." Produced under WWF Project 3868 WWF MALAYSIA.

Mortimer, J. A., Z. Ahmad, et al. (1993). "The Status of the Hawksbill Eretmochelys imbricata and Green Turtle Chelonia mydas of Melaka and Negeri Sembilan." Malayan Nature Journal 46: 243 - 253.

Mortimer, J. A. and D. B. DAUD (1991). "Study of nesting density at the Rhu Kudung, Tanjung Batu , Cakar Hutan and Ma' Daerah beaches of Terengganu with recommendations for management of the turtle populations." A Report Produced Under WWF Malaysia Projects Nos . MYS/91/106, 3868 and MYS/86/9 0.

Mortimer, J. A., A. Zaid, et al. (1992). "Evaluation of the practice of splitting sea turtle egg clutches under hatchery conditions in Malaysia." Unpub Report to WWF and the Turtle Sanctuary Advisory Council of Terengganu.

Polunin, N. V. C. (1975). "Sea turtles: reports on Thailand, West Malaysia and Indonesia, with a synopsis of data on the 'conservation status' of sea turtles in the Indo-West Pacific Region." 1-113.

Siow, K. T. (1978). "Leathery turtle (Dermochelys coriacea) conservation program in Rantau Abang, the state of

Trengganu, Malaysia." First Marine Science Conference " Our Seas In Perspective", Universiti Pertanian Malaysia 1978(5-6 Aug): 1-11.

3.1.2 Have long-term monitoring programmes (i.e. of at least 10 years duration) been initiated or planned for priority marine turtle populations frequenting the territory of your country? [IND, BPR]

■ **YES** ☐ NO ☐ UNSURE

3.1.3 Has the genetic identity of marine turtle populations in your country been characterised? [INF, PRI]

■ **YES** ☐ NO ☐ UNSURE

But not all nesting populations of all species.

3.1.4 Which of the following methods have been or are being used to try to identify migration routes of turtles? Use the text boxes to provide additional details. [INF, PRI]

Tagging ■ **YES** ☐ NO

Fliper tagging. But not all nesting populations of all species.

See Citations listed in Section 3.1.1

Satellite tracking ■ **YES** ☐ NO

See:
Benson, S. R., Dutton, P. H., Hitipeuw, C., Samber, B., Bakarbessy, J., and Parker, D. (2007). "Post-nesting migrations of leatherback turtles (Dermochelys coriacea) from Jamursba-Medi, Bird's Head Peninsula, Indonesia." Chelonian Conservation and Biology 6(1): 150-154.

Liew, H., Chan, E., Luschi, P., and Papi, F. (1995). "Satellite tracking data on Malaysian Green Turtle migration." Rend. Fis. Acc. Lincei 6: 239-246.

van de Merwe, J. P., K. Ibrahim, et al. (2009). "Habitat use by green turtles (Chelonia mydas) nesting in Peninsular Malaysia: local and regional conservation implications." Wildlife Research 36(7): 637-645.

Zaidnuddin, I., Kamarruddin, I., Zahari, A., Ahmad, A., Mohd, L., and Mohd, S. (2003). Satellite tracking of female green turtles Chelonia mydas at Ma'Daerah Turtle Sanctuary, Malaysia. Proceedings on the 4th SEASTAR2000 Workshop (2003) 15 -19.

☐ **Other**

☐ **None of the above**

3.1.5 Have studies been carried out on marine turtle population dynamics and survival rates (e.g. including studies into the survival rates of incidentally caught and released turtles)? [INF, PRI]

■ **YES** ☐ NO ☐ UNSURE

At specific sites; see details in cited publications.

See also:
Chan EH, Liew HC, Mazlan AG. 1988. The incidental capture of sea turtles in fishing gear in Terengganu, Malaysia.

Biological Conservation 43: 1-7.

Chan, E.H. & Liew, H.C. 1996. Decline of the leatherback population in Terengannu, Malaysia 1956-1995. Chelonian Conservation Biology, 2: 196-203.

Liew, H.C. 2002. Status of marine turtle conservation and research in Malaysia. In Kinan, I. (ed.). Proceedings of the Western Pacific Sea Turtle Co-operative Research and Management Workshop, 5-8 February 2002, Pp. 51-65. Honolulu, Hawaii, USA. Honolulu: Western Pacific Regional Fishery Management Council.

Shanker, K. (2004). Marine turtle status and conservation in the Indian Ocean. Papers Presented at the Expert Consultation on Interactions between Sea Turtles and Fisheries within an Ecosystem Context, Rome, 9-12 March 2004. FAO Fisheries Report No. 738, Supplement, p. 85-134.

3.1.6 Has research been conducted on the frequency and pathology of diseases in marine turtles? [INF, PRI]

☐ YES ■ **NO** ☐ UNSURE

3.1.7 Is the use of traditional ecological knowledge in research studies being promoted? [BPR, PRI]

☐ YES ☐ NO ■ **UNSURE**

Possibly at the local information level during field studies.

3.2.1 List any regional or sub-regional action plans in which your country is already participating, which may serve the purpose of identifying priority research and monitoring needs. [INF]

Malaysia is participating in the BOBLME project. There are other actions plans and agreements to the east of the BoBLME area.

3.2.2 On which of the following themes have collaborative studies and monitoring been conducted? Use the text boxes to describe the nature of this international collaboration or to clarify your response. Answer 'NO' if the studies/monitoring undertaken do not involve international collaboration. [INF, PRI]

a) Genetic Identity ■ **YES** ☐ NO ☐ NOT APPLICABLE

Joseph, J. and E. H. Chan (2001). Studies on the population genetics of hawksbill turtles (Eretmochelys imbricata) in Malaysia using microsatellite DNA markers. 21st Annual Symposium on Sea Turtle Biology and Conservation, 24-28 Feb. 2001, Philadelphia, USA.

Joseph, J. and P. W. Shaw (2011). "Multiple paternity in egg clutches of hawksbill turtles (Eretmochelys imbricata)." Conservation Genetics 12(2): 601-605.

See Also for summary:
Shanker, K. (2004). Marine turtle status and conservation in the Indian Ocean. FAO Fisheries Report. Supplement Rome, 9-12 March 2004 FAO. 738: 238p.

b) Conservation status ☐ YES ■ **NO** ☐ NOT APPLICABLE

c) Migrations ■ **YES** ☐ NO ☐ NOT APPLICABLE

d) Other biological and ecological aspects ☐ YES ☐ NO ☐ NOT APPLICABLE

☐ **Other**

3.3.1 List, in order of priority, the marine turtle populations in your country in need of conservation actions, and indicate their population trends. [PRI]

All marine turtle populations in Malaysia are declining or have declined in recent times.

• Leatherback turtle populations have declined by more than 99.9%
• Olive ridley turtle populations have declined by more than 95%
• Green turtles - Some populations in Malaysia appear to be stable currently. Others (Terengganu & Sarawak) have decreased significantly (more than two fold)
• Hawksbill turtle populations in Sabah & Malacca appear to be stabilizing in the short term.

For overview see: Shanker, K. (2004). Marine turtle status and conservation in the Indian Ocean. FAO Fisheries Report. Supplement Rome, 9-12 March 2004, FAO. 738: 238p.

3.3.2 Are research and monitoring activities, such as those described above in Section 3.1 periodically reviewed and evaluated for their efficacy? [SAP]

☐ YES ■ **NO** ☐ UNSURE

3.3.3 Describe how research results are being applied to improve management practices and mitigation of threats (in relation to the priority populations identified in 3.3.1, among others). [SAP]

Documentation of the decline in leatherback turtles nesting at Terengganu helped stop egg collecting and near shore fishing. Other information has contributed to developing fisheries legislation (but enforcement is weak).

3.4.1 Has your country undertaken any initiatives (nationally or through collaboration with other Range States) to standardise methods and levels of data collection? [BPR, INF]

■ **YES** ☐ NO ☐ UNSURE

Use of standard methods is voluntary but most researchers use widely accepted published methods.

3.4.2 To what extent does your country exchange scientific and technical information and expertise with other Range States? [SAP, IND]

☐ OFTEN (SYSTEMATICALLY) ■ **OCCASIONALLY** ☐ RARELY ☐ NEVER

3.4.3 If your country shares scientific and technical information and expertise with other Range States, what mechanisms have commonly been used for this purpose? Comment on any positive benefits/outcomes achieved through these interactions. [INF]

Symposia and published papers.
Through the establishment of the Turtle Islands Heritage Protected Area (TIHPA) between Sabah and the Philippines. Annual meetings are held for information exchange and updates.

3.4.4 Does your country compile and make available to other countries data on marine turtle populations of a regional interest? [INF]

■ **YES** ☐ NO ☐ UNSURE

Mainly through Symposia and published papers and use of web pages.

OBJECTIVE IV. INCREASE PUBLIC AWARENESS OF THE THREATS TO MARINE TURTLES AND THEIR HABITATS, AND ENHANCE PUBLIC PARTICIPATION IN CONSERVATION ACTIVITIES

4.1.1 Describe the educational materials, including mass media information programmes that your country has collected, developed and/or disseminated. [INF, PRI]

Some information for fishermen and tourists has been developed.

A book entitled “Little Turtle Messenger” written by Chan Eng Heng was published in 2010 by MPH. It has a clear message in education children not to eat turtle eggs. The Malay version entitled “Duta Kecil Penyu” was sponsored by WWF Malaysia and disseminated widely to elementary school children in Terengganu.

A long-term volunteer program to help monitor nesting activity at the Chagar Hutang Turtle Sanctuary developed by Chan Eng Heng and Liew Hock Chark in 1998 has helped increase public awareness in turtle conservation.

Annual turtle camps for primary school children of Redang Island initiated in 1996 continues to this day.

4.1.2 Which of the following groups have been the targets of these focused education and awareness programmes described in above in Section 4.1.1? [PRI, INF]

☐ Policy makers
■ **Fishing industry**
☐ Local/Fishing communities
☐ Indigenous groups
■ **Tourists**
☐ Media
■ **Teachers**
■ **Students**
☐ Military, Navy, Police
☐ Scientists
☐ Other:
☐ None of the above

4.1.3 Have any community learning / information centres been established in your country? [BPR, SAP]

■ **YES** ☐ NO

4.2 Alternative livelihood opportunities [IND, BPR] Describe initiatives already undertaken or planned to identify and facilitate alternative livelihoods (including income-generating activities) for local communities.

Local villagers are employed to help monitor nesting activity in Redang Island.

Information about other sites is not available at this time.

4.3.1 Describe initiatives already undertaken or planned by your country to involve local communities, in particular, in the planning and implementation of marine turtle conservation programmes. Please include details of any incentives that have been used to encourage public participation, and indicate their efficacy. [BPR, IND]

This information is not available at this time.

4.3.2 Describe initiatives already undertaken or planned to involve and encourage the cooperation of Government institutions, NGOs and the private sector in marine turtle conservation programmes. [IND, BPR]

This information is not available at this time.

OBJECTIVE V. ENHANCE NATIONAL, REGIONAL AND INTERNATIONAL COOPERATION

5.1.1 Has your country undertaken a national review of its compliance with Convention on International Trade in Endangered Species (CITES) obligations in relation to marine turtles? [SAP]

☐ YES ☐ NO ☐ NOT APPLICABLE

This information is not available at this time.

5.1.2 Does your country have, or participate/cooperate in, CITES training programmes for relevant authorities? [SAP]

■ **YES** ☐ NO ☐ NOT APPLICABLE

5.1.3 Does your country have in place mechanisms to identify international illegal trade routes (for marine turtle products etc.)? Please use the text box to elaborate on how your country is cooperating with other States to prevent/deter/eliminate illegal trade. [SAP]

■ **YES** ☐ NO ☐ NOT APPLICABLE

5.1.4 Which international compliance and trade issues related to marine turtles has your country raised for discussion (e.g. through the IOSEA MoU Secretariat, at meetings of Signatory States etc.)? [INF]

Unknown

5.1.5 Describe measures in place to prevent, deter and eliminate domestic illegal trade in marine turtle products, particularly with a view to enforcing the legislation identified in Section 1.5.1. [INF]

Legislation is in place but enforcement is weak. Training and capacity building are required.

5.2.1 Has your country already developed a national action plan or a set of key management measures that could eventually serve as a basis for a more specific action plan at a national level? [IND]

■ **YES** ☐ NO

A National Action Plan of Action for Conservation and management of sea turtles has been published by the Department of Fisheries, Ministry of Agriculture and Agro-based Industry, Malaysia.

5.2.2 From your country's perspective, which conservation and management activities, and/or which particular sites or locations, ought to be among the highest priorities for action? [PRI]

Ban the commercial sale of marine turtle eggs throughout Malaysia

Patrolling of feeding grounds of green and hawksbill turtles in remote areas to control illegal poaching of marine turtles and to apprehend and arrest perpetrators.

Protection of nesting sites and nests of hawksbill turtles in Melaka and Sabah Turtle Islands to maximize hatchling production for return to the oceans

Protection of nesting sites and nests of green turtles in Sabah, Sarawak, Terengganu, Perak, Pahang and Johor to maximize hatchling production for return to the oceans

Control fishing activity to reduce turtle mortality

Survey of Western coast to assess nesting and foraging populations

5.2.3 Please indicate, from your country's standpoint, the extent to which the following local management issues require international cooperation in order to to achieve progress. [PRI]

Illegal fishing in territorial waters	■ **ESSENTIAL** ☐ IMPORTANT ☐ LIMITED ☐ NOT AT ALL
Incidental capture by foreign fleets	■ **ESSENTIAL** ☐ IMPORTANT ☐ LIMITED ☐ NOT AT ALL
Enforcement/patrolling of territorial waters	■ **ESSENTIAL** ☐ IMPORTANT ☐ LIMITED ☐ NOT AT ALL
Hunting/harvest by neighboring countries	■ **ESSENTIAL** ☐ IMPORTANT ☐ LIMITED ☐ NOT AT ALL
Poaching, illegal trade in turtle projects	■ **ESSENTIAL** ☐ IMPORTANT ☐ LIMITED ☐ NOT AT ALL
Development of gear technology	☐ ESSENTIAL ■ **IMPORTANT** ☐ LIMITED ☐ NOT AT ALL
Oil spills, pollution, marine debris	☐ ESSENTIAL ■ **IMPORTANT** ☐ LIMITED ☐ NOT AT ALL
Training / capacity-building	☐ ESSENTIAL ■ **IMPORTANT** ☐ LIMITED ☐ NOT AT ALL
Alternative livelihood development	☐ ESSENTIAL ■ **IMPORTANT** ☐ LIMITED ☐ NOT AT ALL
Identification of turtle populations	☐ ESSENTIAL ■ **IMPORTANT** ☐ LIMITED ☐ NOT AT ALL
Identification of migration routes	☐ ESSENTIAL ■ **IMPORTANT** ☐ LIMITED ☐ NOT AT ALL
Tagging / satellite tracking	☐ ESSENTIAL ■ **IMPORTANT** ☐ LIMITED ☐ NOT AT ALL
Habitat studies	■ **ESSENTIAL** ☐ IMPORTANT ☐ LIMITED ☐ NOT AT ALL
Genetics studies	☐ ESSENTIAL ■ **IMPORTANT** ☐ LIMITED ☐ NOT AT ALL

5.3.1 Identify existing frameworks/organisations that are, or could be, useful mechanisms for cooperating in marine turtle conservation at the sub-regional level. Please comment on the strengths of these instruments, their capacity to take on a broader coordinating role, and any efforts your country has made to enhance their role in turtle conservation. [INF, BPR]

Turtle Islands Heritage Protected Area

5.3.2 Has your country developed, or is it participating in, any networks for cooperative management of shared turtle populations? [BPR, INF]

■ **YES** ☐ NO ☐ NOT APPLICABLE

5.3.3 What steps has your country taken to encourage Regional Fishery Bodies (RFBs) to adopt marine turtle conservation measures within Exclusive Economic Zones (EEZs) and on the high seas? [SAP]

Unknown

5.4.1 Describe your country's needs, in terms of human resources, knowledge and facilities, in order to build capacity to strengthen marine turtle conservation measures. [PRI]

Capacity building would be improved by within and among country information exchange.

5.4.2 Describe any training provided in marine turtle conservation and management techniques (e.g. workshops held, training manuals produced etc.), and indicate your plans for the coming year. [PRI, INF]

Information not available.

5.4.3 Specifically in relation to capacity-building, describe any partnerships developed or planned with universities, research institutions, training bodies and other relevant organisations. [BPR]

Information not available.

5.5.1 National policies and laws concerning the conservation of marine turtles and their habitats will have been described in Section 1.5.1. Please indicate their effectiveness, in terms of their practical application and enforcement. [SAP, TSH]

In general, national policies are effective in many areas and not in others. Local involvement is necessary and must be developed.

Enforcement is still an issue.

5.5.2 Has your country conducted a review of policies and laws to address any gaps, inconsistencies or impediments in relation to marine turtle conservation? If not, indicate any obstacles encountered in this regard and when this review is expected to be done. [SAP]

☐ YES ☐ NO ☐ UNSURE

Legislation is occasionally reviewed and up-dated (e.g. fisheries regulations).

5.5.3 From the standpoint of law enforcement, has your country experienced any difficulties achieving cooperation to ensure compatible application of laws across and between jurisdictions? [TSH]

☐ YES ☐ NO ☐ UNSURE

Across boundary cooperation and enforcement varies, depending on the issue and the boundary.

OBJECTIVE VI. PROMOTE IMPLEMENTATION OF THE MoU INCLUDING THE CONSERVATION AND MANAGEMENT PLAN

6.1.1 What has your country already done, or will it do, to encourage other States to sign the IOSEA MoU? [INF]

6.1.2 Is your country currently favourable, in principle, to amending the MoU to make it a legally binding instrument? [INF]

☐ YES ☐ NO ☐ NO VIEW

6.1.3 Would your country be favourable, over a longer time horizon, to amending the MoU to make it a legally-binding instrument? [INF]

☐ YES ☐ NO ☐ NO VIEW

6.2 Secretariat and Advisory Committee

6.2.1 What efforts has your country made, or can it make, to secure funding to support the core operations of the IOSEA MoU (Secretariat and Advisory Committee, and related activities)? [IND]

6.3.1 What funding has your country mobilised for domestic implementation of marine turtle conservation activities related to the IOSEA Marine Turtle MoU? Where possible, indicate the specific monetary values attached to these activities/programmes, as well as future plans. [IND]

6.3.2 Has your country tried to solicit funds from, or seek partnerships with, other Governments, major donor organisations, industry, private sector, foundations or NGOs for marine turtle conservation activities? [IND]

☐ YES ☐ NO

6.3.3 Describe any initiatives made to explore the use of economic instruments for the conservation of marine turtles and their habitats. [BPR]

6.4.1 Has your country designated a lead agency responsible for coordinating national marine turtle conservation and management policy? If not, when is this information expected to be communicated to the IOSEA MoU Secretariat? [IND]

☐ YES ☐ NO

6.4.2 Are the roles and responsibilities of all government agencies related to the conservation and management of marine turtles and their habitats clearly defined? [IND]

☐ YES ☐ NO ☐ UNSURE

6.4.3 Has your country ever conducted a review of agency roles and responsibilities? If so, when, and what was the general outcome? If not, is such a review planned and when? [SAP],

☐ YES ☐ NO ☐ UNSURE

Comments/suggestions to improve the present reporting format:

Additional information not covered above: