



# Indian Ocean – South-East Asian Marine Turtle Memorandum of Understanding



## Mauritius

### GENERAL INFORMATION

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

Albion Fisheries Research Centre Ministry of Fisheries

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

None

**Designated Focal Point:**

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## 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]

Nesting occurs on the beaches of St. Brandon and Agalega (Chapman and Swinnerton 1996; Griffiths and Tatayah 2007). Foraging and feeding takes place in seagrass, algae and reef areas around Mauritius, St. Brandon and Agalega. Nesting (and foraging) numbers of turtles have been declining since the 1970's, due to excessive exploitation (Hughes 1976; Chapman and Swinnerton 1996; Mortimer and Donnelly 2007), as well as impacts from coastal development and tourism. Occasional cyclonic storms also affect nests from time to time (Groombridge and Luxmoore 1987). Cases of nesting of turtles have also been around the southern coast of Mauritius and around Rodrigues. A survey will shortly be undertaken to collect more data on marine turtle around Mauritius, Rodrigues St. Brandon and Agalega.

#### 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]

Enactment of legislation and prescribed measures as stated in the Fisheries and Marine Resources Act 2007. Monitoring of beaches as per the Beach Authority Act which might be habitats for nesting turtles. Implementation of recommendation of IOTC with regard to turtles. With the help of the private sector surveillance and awareness are being reinforced.

**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]**

No known studies

**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

Marine turtles are protected species in the Fisheries and Marine Resources Act 2007. A committee membering Government departments, Private Sector and NGO has been set up for the conservation of marine turtles.

**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:**

**b) Set gill nets:**

**c) Anchored Fish Aggregating Devices (FADs):**  YES  NO

FADs - 22 operating around Mauritius

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

Seven purse seiners under Mauritian flag are in operation.

**e) Longline (shallow or deepset):**  YES  NO

Longline fishery by Mauritian and foreign vessels

**f) Driftnet:**  YES  NO

**g) Other1:**

**h) Other2:**

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: Trawling is not carried out in Mauritius

**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: No known catch of turtles on FADs around Mauritius

***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: Currently there is no Mauritian purse seiner in operation.

***e) Longline (shallow or deepset)***

**Fishing effort:**

RELATIVELY HIGH  **MODERATE**  RELATIVELY LOW  NONE  UNKNOWN

**Perceived Impact:**

RELATIVELY HIGH  MODERATE  RELATIVELY LOW  NONE  **UNKNOWN**

Source: Longlining is carried out. Local operators of longlines have been instructed to use mitigation measures and to release any turtle caught accidentally.

***f) Driftnet***

**Fishing effort:**

RELATIVELY HIGH  MODERATE  RELATIVELY LOW  NONE  UNKNOWN

**Perceived Impact:**

RELATIVELY HIGH  MODERATE  RELATIVELY LOW  NONE  UNKNOWN

Source: NA

***g) Other1 (from 1.4.1):***

**Fishing effort:**

RELATIVELY HIGH  MODERATE  RELATIVELY LOW  NONE  UNKNOWN

**Perceived Impact:**

RELATIVELY HIGH  MODERATE  RELATIVELY LOW  NONE  UNKNOWN

Source: NA

***h) Other2 (from 1.4.1):***

**Fishing effort:**

RELATIVELY HIGH  MODERATE  RELATIVELY LOW  NONE  UNKNOWN

**Perceived Impact:**

RELATIVELY HIGH  MODERATE  RELATIVELY LOW  NONE  UNKNOWN

Source: NA

**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]**

In an effort to combat IUU fishing in Mauritius, a National Plan of Action to prevent, deter and eliminate IUU Fishing has been developed with the assistance of the Government of Norway, which is based on the International Plan of Action to combat IUU Fishing.

A Vessel Monitoring System (VMS) was installed in Mauritius in 2005. Fishing licences are issued only to vessels equipped with a functional VMS on board. It is illegal in Mauritius to catch or have in possession any turtle or marine mammal dead or alive. A committee comprising Government departments, Private Sector and NGO has been set up for the conservation of marine turtles.

**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

Circular hooks are being used.

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**

This data is not yet available .

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

No fishing takes place during certain closed season as specified in the Fisheries and Marine Resources Act 2007.

h) **Effort management control**

**YES**  NO  NOT APPLICABLE

**Other (list and explain):**

The Fisheries and Marine Resources Act 2007 provides for regulations regarding fishing with the aid of artificial light and implementation of international conservation and management measures.

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

On scientific missions ( SWIOFP), on fishing vessels

**Vessel monitoring systems**

**YES**  NO  NOT APPLICABLE

Fully operational

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

**YES**  NO  NOT APPLICABLE

In port and landing sites and at sea

**Training programmes / workshops** to educate fishers

**YES**  NO  NOT APPLICABLE

Training on all aspects including the protection of species to the fishermen at the Fisheries Training Centre ( FITEC)

**Informative videos, brochures, printed guidelines** etc.

**YES**  NO  NOT APPLICABLE

The DVD obtained from IOSEA on the marine turtle conservation is being shown on television and at the Albion Fisheries Research Centre during open days and visits at the centre by students and other visitors.

**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]**

In line with IOTC resolution, operators of longliners have been requested to submit data on marine turtles. As party to the organisation like IOTC, such data have to be communicated to IOTC.

**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**

Not applicable

**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]**

Use of large scale drift nets is not authorised in maritime zones of of Mauritius.

**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

Under the Fisheries and Marine Resources Act 2007, Act No. 27 of 2007, the marine turtle is a protected species. No exemptions for traditional harvest has been made.

**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

Overexploitation of turtles and turtle eggs continues (Griffiths and Tatayah 2007; Mortimer and Donnelly 2007). Residents of the Agalega Islands admitted to poaching turtles (meat and carapaces) and turtle eggs, in spite of the law prohibiting it, because it is considered part of their tradition, and because of the economic gains from selling turtle products (Griffiths and Tatayah 2007). Insufficient law enforcement contributes to the poaching of turtles (Griffiths and Tatayah 2007).

Green turtles, in particular, are targeted; whereas the meat of hawksbill turtles is considered poisonous (Groombridge and Luxmoore 1989).

**Egg consumption**

YES  NO

HIGH  MODERATE  LOW  UNKNOWN

(Groombridge and Luxmoore 1989; Griffiths and Tatayah 2007; Mortimer and Donnelly 2007)

**Shell products**

YES  NO

HIGH  MODERATE  LOW  UNKNOWN

(Chapman and Swinnerton 1996; Griffiths and Tatayah 2007; Mortimer and Donnelly 2007)

**Fat consumption**

YES  NO

HIGH  MODERATE  LOW  UNKNOWN

(Chapman and Swinnerton 1996)

**Traditional medicine**

YES  NO

HIGH  MODERATE  LOW  UNKNOWN

**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:

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

YES  NO  UNKNOWN

Not applicable, Harvest is not authorised under the Fisheries and Marine Resources Act.

**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]**

Such provisions exist in the fishing agreements between Mauritius and other states.

**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

NA

#### **Predator control**

**YES**  NO  N/A

EXCELLENT  **GOOD**  LOW  UNKNOWN

Fishing of marine turtles and collecting turtle eggs is prohibited under the Fisheries and Marine Resources Act, 2007. No measures are in place for minimising or reducing mortality by feral and domestic animals.

#### **Vehicle / access restrictions**

**YES**  NO  N/A

EXCELLENT  **GOOD**  LOW  UNKNOWN

No vehicles are allowed on public beaches.

#### **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

Most of the coastal frontal dunes have vegetation to prevent erosion and this is kept intact.

#### **Building location/design regulations**

**YES**  NO  N/A

**EXCELLENT**  GOOD  LOW  UNKNOWN

As a requirement for an Environmental Impact Assessment license, the proponents need to keep a setback of 15-30m depending on the nature of the site, from the High Water MARK.

#### **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

A survey will shortly be undertaken to collect more data on marine turtle around Mauritius, Rodrigues St. Brandon and Agalega so as to evolve additional managements measures for conservation and surveillance of marine turtles.

**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]**

Marine turtles are protected species under the Fisheries Act of 2007. Public awareness campaigns are conducted to sentisise public on the importance of conservation of marine turtles. However, in spite of the legislation, some cases of turtles poaching have been reported in Agalega and remedial actions are being taken.

**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

All the EIAs need to clarify if the area to be developed is not an important habitat housing endangered or rare organisms. This is one of the main criteria in an EIA.

**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

Guidelines for water quality standards have been worked out under the EPA.

Appropriate regulations regarding effluent discharge into the ocean, and Coastal Water Quality Guidelines for various categories have been formulated and water analyses are carried out regularly in Mauritius. Outer islands, being remote are not monitored.

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

YES  NO  NOT APPLICABLE

Fishing with a poisonous substance or an explosive is prohibited by law.

**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)

Relocation of short sewage outfalls to long outfalls to protect coral reefs or to allow reefs to regenerate. Regular monitoring of coral reefs is done on a yearly basis to know their status.

All coastal developments and hotels are required to submit EIAs and also monitor the water quality as per regulations and guidelines.

Coral farming in the lagoon has been started in 2008 for rehabilitation of degraded coral reefs at selected sites around the island.

**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)

(a) The Ministry has an ongoing mangrove rehabilitation programme since 1992 for mangrove propagation in order to reforest denuded areas of the lagoon.

A total of around 220,000 mangrove seedlings has been successfully planted on an area of more than 130,000 m<sup>2</sup> (13 hectares) of the coastal strip with a survival rate exceeding 80%. The total mangrove cover around the island has significantly increased and presently stands at some 145 hectares (ESA Classification Report, June 2009). Mangrove plants are protected and cannot be removed. (b) Dredging activities and any coastal development at sea require an Environment Impact Assessment licence.

**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)

Dredging activities and any coastal development at sea require an Environment Impact Assessment licence.

In an EIA usually dredging of sea grass beds is not allowed. The ex-sand mining sites in the NE and SE of Mauritius are being monitored and the sea grass beds are in good condition with a lot of fish species. Sand mining in the lagoon was banned as from October 2001 in Mauritius.

**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]**

Hughes, G.R. (1971) Sea turtle research and conservation in south east Africa. Proceedings of the second working meeting of marine turtle specialists: 57 - 67.

Hughes, R (1972). Report to the Southern Africa Wildlife Foundation (World Wildlife Fund) on the status of the marine turtles in South East Africa. Section 2: Madagascar and the Mascarene Part 5: The proposed Mahebourg Green Turtle Farm.

Hughes, G.R. (1974) The sea turtles of south east Africa. PhD. Thesis, University of Natal. 200 p.

Hughes, G.R. (1974) The Sea turtles of South-East Africa I. Status, morphology and distributions. Invest. Rep. Oceanograph. Res. Inst. No. 35: 2-44.

Hughes, G.R. (1975) The St. Brandon turtle fishery. Proceedings of the Royal Society of Arts and Science of Mauritius 111(2): 165 - 189.

Hughes, G.R. (1976) Sea turtles in south east Africa. Proceedings of the Royal Society of Arts and Sciences of Mauritius: 81 - 87.

Thompson, R.K. (1981) Nesting of green sea turtle, *Chelonia mydas* (Linnaeus) 1758, in Mauritius. Revue Agricole et Sucriere de l'Ile Maurice 60: 125 - 130.

Bonnet, B. (1985) Les tortues marines dans les iles du sud-ouest de l'Ocean Indien, Rapport de l'atelier regional "Ressources Biologiques Aquatiques".

Chapman, R.E. and Swinnerton, K.J. (1996) The Mauritius Wildlife Fund St. Brandon Expedition: Marine turtles. 7pp.

Griffiths, O. and Tatayah, V. (2007) Rapid survey of marine turtles in Agalega, Western Indian Ocean. Marine Turtle Newsletter 115: 14 - 16.

**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

A public/ private sector /NGO initiative is inderway for the Protection and Conservation of Marine Turtles.

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

YES  NO  UNSURE

**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

In future, tagging of turtles will be carried outr at St. Brandon.

**Satellite tracking**  YES  NO

In future, satellite tagging of turtles will be carried out at St. Brandon. Satellite tags ( two) have been obtained under the SWIOFP.

**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

**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

**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]

The main turtle nesting populations are found in the outer islands, like St. Brandon, Agalega, Tromelin and Chagos Archipelago. The main reason for not having monitoring programmes on these islets are because they are isolated and far away from the mainland and facilities are very minimal to carry out any research works on turtle populations. A survey will shortly be undertaken to collect more data on marine turtle around Mauritius, Rodrigues St. Brandon and Agalega.

**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

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]**

The green turtle is the most common turtle species in the waters around Mauritius (Hughes 1976; Chapman and Sennerton 1996). They rarely come to nest in the beaches of Mauritius where peaceful and pristine beaches for nesting are difficult to find. In outer islands like St. Brandon, Agalega nesting is more common due to less coastal development (Chapman and Swinnerton 1996; Griffiths and Tatayah 2007).

Hawksbill turtles are less common, and are thought to only nest on St. Brandon Island (Mortimer and Donnelly 2007; Frazier 1980; Hughes 1976).

**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]**

**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

Under the SWIOFP regional project, the countries have undergone training in the identification and biology of marine turtles. A uniform data collection method is also being put in place.

**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]**

Training of regional counterparts in turtle biology and identification.

**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

## **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]**

During talks in schools, to the public and fishermen, the importance of conservation of marine turtle populations is stated. The DVD produced by the IOSEA has been given to the Mauritius Broadcasting Corporation for mass media information and is also shown to students and the public at large during open days and visits to the Albion Fisheries Research Centre.

### **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: Fisheries Protection Services

None of the above

Recently in Oct 2007, a green turtle was seen laying eggs on a beach at Gris Gris in the south of Mauritius. The information was given by one of the coastal residents to the NCG. This rare occasion was followed up and the officers of the Ministry of Agro-Industry & Fisheries (Fisheries Division) and the Fisheries Protection officers were put on vigil 24 hours on site till the eggs hatched out. The site was protected and the importance of the marine turtles was informed to the general public through the media.

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

**YES**  **NO**

Such actions are being initiated.

### **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.**

None.

### **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]**

Usually the government organisations and the registered NGOs participate in conservation programmes and the general public or community found in the vicinity of a nesting beach are also involved. In Mauritius, apart from the government, the Mauritius Marine Conservation Society and Mauritius Wildlife Fund are also active in marine turtle conservation. A joint public/private/NGO committee has been set up for the conservation of marine turtles.

#### **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]**

The Action plan for stranded mammals/ marine turtles is in place. When there is a case of a stranding, the government organs and the NGOs work together in the protection and conservation of the turtles.

### **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

#### **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

Permits are required for the import and export of all fish and fish products. Through this mechanism, the illegal import and export of marine turtle products is controlled.

#### **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]**

Mauritius participates actively in meetings/forums for the conservation of species such as marine turtles in the IOTC, IOSEA, SWIOFC, CITES etc

#### **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]**

Enforcement of legislation and prosecution of persons who commit a breach of the Fisheries and Marine Resources Act, 2007. Under the Act trade of marine turtles is illegal.

**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**

The National Action plan for stranded marine mammals / turtles has been prepared and the geographical area is around the lagoonal waters of Mauritius. Many government agencies and NGOs are involved and a protocol of action is clearly stated in the action plan. It has been introduced in 2007.

**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]**

1. Collect and compile basic data on marine turtles (3.1)
2. Review, update and centralise existing bibliographical information, and distribute to all Range States (3.4)
3. Initiate, continue and/or complete baseline inventory and mapping of nesting beaches, and feeding grounds and migratory routes (as appropriate). Identify those which are critical habitats for marine turtles. (3.1)
4. Develop a protocol for collection, storage and analysis of pertinent data, harmonized at least on a sub-regional level. (3.1)
5. Initiate and/or continue systematic data collection and tagging programmes in order to determine occurrence, distribution and conservation status. Where feasible and appropriate, conduct this work through national networks. (3.1)
6. Assess the nature and extent of the impact of fishing activities, pollution, coastal development, climate change, and other threats caused by activities other than direct exploitation and utilisation. (1.1)
7. Acquire materials and basic equipment needed for data collection (where feasible, make joint purchases of equipment and supplies in order to benefit from economies of scale). (5.4)
8. Give protection status to sites identified as being critical for marine turtle nesting, feeding and migration. (2.1)
9. Set-up and/or facilitate monitoring (information gathering) programmes in collaboration with local communities, NGOs, fishermen, trawl operators, coastal developers and others. Ensure adequate feedback of information collected to all concerned. (4.3)
10. Improve general knowledge of legislation. (4.1)
11. Develop model projects to demonstrate the benefits of ecotourism. (6.3)

**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

Management and surveillance of fisheries resources (marine turtles) in our waters.

**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]**

IOSEA- Turtle MOU, Nairobi Convention-IOSEA Marine Turtle Task Force in the Western Indian Ocean is an existing framework.

**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]**

Supported the IOTC Resolution on turtles.

**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 is required in terms of training in surveys on marine turtles concerning all aspects, equipment, research techniques, study populations etc.. The population studies on outer islands are not carried out due to their remoteness.

**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]**

Training had been carried out under SWIOFP for turtle identification, biology, satellite tracking and other methods and turtle conservation.

SWIOFP had purchased two satellite tags per country that will be used to tag turtles on St. Brandon.

**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. [\[BPR\]](#)**

SWIOFP had a biodiversity component where the conservation of turtles is a project.

**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. [\[SAP, TSH\]](#)**

The enforcement of legislation around mainland Mauritius is effective. Other turtle populations are found on remote islets far away from mainland Mauritius and hence the problem of practical application of conserving and protecting these habitats.

**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

The current legislation is being updated.

**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

Under the COI, harmonisation of legislations in the member countries was carried particularly to combat IUU fishing. Such initiatives should be encouraged in other sectors like conservation of marine turtles.

## **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)? [\[IND\]](#)

Mauritius is presently making a voluntary contribution of US \$ 500 annually to the IOSEA MoU for Marine Turtles.

### 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. [\[IND\]](#)

Funding for conservation activities and ad-hoc events of turtle nesting is obtained from the National budget.

### 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

The Ministry of Fisheries along with the private sector and NGO, is initiating actions for the conservation of marine turtles. The purchase of Satellite tags had been funded by the SWIOFP

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

None

### 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

Ministry of Fisheries - Albion Fisheries Research Centre is responsible for the conservation of turtles. It Chairs the Committee which has been set up for the Conservation of marine turtles.

### 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

The conservation and management of marine turtles falls under the purview of the Ministry of Fisheries.

**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

The Ministry of Fisheries is the sole government organisation responsible for the conservation of marine turtles. The Private Sector/ NGOs participate in the conservation process with other stakeholders.

**Comments/suggestions to improve the present reporting format:**

The questions should be more precise to avoid ambiguity in reply.

**Additional information not covered above:**