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MEMORANDUM OF UNDERSTANDING ON THE CONSERVATION AND MANAGEMENT OF MARINE TURTLES AND THEIR HABITATS OF THE INDIAN OCEAN AND SOUTH-EAST ASIA

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Agenda Item 7.1

MAURITIUS – NATIONAL REPORT 2019

(Prepared by Mauritius)

IOSEA MARINE TURTLES MEMORANDUM OF UNDERSTANDING - NATIONAL REPORTING 2019

IOSEA Marine Turtles MoU - National Reports

The purpose of completing the national report is to provide information on your country's implementation of the IOSEA Marine Turtle MoU including, as far as possible, contributions of cooperating non-governmental partners. Implementation will be assessed in terms of the six objectives of the Conservation and Management Plan (CMP). The online questionnaire is divided into these six main objectives, and asks specific questions in relation to the activities that need to be carried out to fulfil those objectives.

Please answer all questions as fully and as accurately as possible. It may seem time-consuming, but once you have completed the first report, the next time will be much easier because you can simply revise your existing report online. Comprehensive responses to the questions posed in Section 1.4 should satisfy many of the reporting requirements of the 2004 FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations, thereby avoiding duplication of effort.

Description text is provided below some of the questions to explain what information needs to be provided. Text boxes can be expanded to accommodate longer answers or to explain and provide additional information, beyond what is requested. Details of future plans are especially encouraged. Wherever possible, please try to indicate the source of information used to answer a particular question, if a published reference is available. Remember that you are sharing information with other countries about your progress, so that it may be of benefit to them. At the same time, you may find it useful to look at other countries' reports to get ideas for marine turtle conservation that might be adapted to your context.

When working on the online questionnaire, save your information by clicking on the "Save all" button inside each section. An auto-save feature also saves any changed responses every 30 seconds, and whenever you move between sections. Feel free to attach additional material (published reports, maps etc) to this questionnaire.

Throughout the questionnaire, alongside each question you will find one or more 3-letter abbreviations within square brackets. These are used to indicate the purpose for which the information provided will be used in the subsequent analysis of all of the national reports, as shown in the following table.

To some extent, the order in which these different types of information are listed below is a reflection of their importance – ranging from critical indicators of performance to factual details that are merely informative.

Abbreviation	**Type**	**Treatment / Purpose**
IND	Indicator	The information provided serves, in and of itself, as a key indicator of successful implementation or of pre-requisites for same (eg. of core actions undertaken, resource availability, capacity etc.)
PRI	Priorities	The collective data will be synthesized to give an indication of what has been done already (helping to avoid duplication of effort); what is generally not being done (gaps that need to be addressed); and what interventions or specific assistance may be required.
TSH	Trouble-shooting	

Particular implementation problems and issues (possibly of special interest to a small group of countries) are identified/highlighted with a view to stimulating remedial action in the short-term.

BPR

Best practice

Well-documented examples of best practices / success stories will be compiled and presented as approaches that other Signatory States might consider pursuing (ie adopting or adapting to suit their own circumstances).

SAP

Self-Appraisal

Self-assessment of effectiveness and completeness of actions undertaken – intended to stimulate reflection within a given Signatory State on what more could or should be done in relation to a particular activity.

INF

Information

The information will be collected and compiled, with little or no modification, mainly for purpose of sharing of information that could be of interest or value to other readers and/or other analyses.

GENERAL INFORMATION

Signatory State:
Which agency or institution has been primarily responsible for the preparation of this report?
› Albion Fisheries Research Centre, Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping

List any other agencies, institutions, or NGOs that have provided input:
› Government Institution: Ministry of Environment, National Coast Guard, Fisheries Protection Service.
NGOs: Mauritius Marine Conservation Society (MMCS), Eco-Sud, Reef Conservation

Memorandum in effect in Signatory State since (dd/mm/yyyy):
› since 2002

This report was last modified (dd/mm/yyyy):
› 2014

Designated Focal Point (and full contact details):
› Mr. D.Norungee
Director of Fisheries
Ministry of Ocean Eco0nomy. Marine Resources, Fisheries and Shipping

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

1.1 Introduction to marine turtle populations and habitats, challenges and conservation efforts

Please introduce and summarise, in an abstract of less than a page, the marine turtle populations and their habitats in your country. Comment on their status and highlight the main conservation challenges and achievements to date. It is not necessary to list here by name the individual nesting beaches, feeding areas and developmental habitats that are important for marine turtles in your country, as this information can be generated from the 'Site-Threat' data sheets to be completed in Annex 1. **[INF]**

› Five species of sea turtles occur in the Southwest Indian Ocean, of which the green (Chelonia mydas) and the hawksbill (Eretmochelys imbricata) are the most widely distributed (Ratsimbazafy, 2003; Seminoff, 2004). Both species are classified as endangered and critically endangered, respectively on the IUCN Redlist of Threatened Species. Only green and hawksbill turtles have been previously reported within the waters of Mauritius (Mangar & Chapman, 1996) while loggerhead turtles are known to occur mainly in the waters of southern Mozambique and around South Africa where they also nest (Papi et al., 1997; Videira et al., 2008, 2011; Hughes, 2010). The Albion Fisheries Research Centre (AFRC), the technical arm of the Ministry of Ocean Economy, marine Resources, Fisheries and Shipping, is the lead organisation overseeing sea turtle protection and conservation under the Fisheries and Marine Resources Act 2007 of the Republic of Mauritius.
Sightings of sea turtles in Mauritius is quite common and they have been reported to feed in our coastal waters and nesting has also been observed on the mainland (Savinnia beach and Gris Gris), Flat Island, Saint Brandon Archipelago and the other outer islands or Mauritius. Marine turtles are threated species worldwide and in Mauritius they are threatened due to entanglement in fishing nets, boat collisions and destruction of their nesting and feeding grounds to allow for coastal development.

1.2 Best practice approaches to minimizing threats

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. **[BRP]**

› 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.
A draft of 'Marine Turtle Encounter Response Procedures' (MTERP) has been prepared with the following components addressed (and yet to be finalised):
a. Turtle tracks response protocol
b. Turtle nesting response protocol
c. Injured or trapped turtle protocol
d. Dead turtle response protocol
e. Turtle poaching protocol
An Action Plan on Stranded Mammal/Turtle is already in place and is being reviewed. The action plan starts to function as soon as there is a stranding or death of a turtle.

1.3 Programmes to correct adverse economic incentives

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]**

Elaborate on the nature of the socio-economic study/ activity undertaken, the results obtained (successful or otherwise) and the desirability/ suitability for replication.
Include references to published reports, where available.

› Several meetings were held in villages of the South of Mauritius known to harbour a high number of poachers to gather baseline information data and sensitise the community on marine turtle nesting and poaching.
Beach Patrolling to detect for poaching and nesting in the South were initiated from 2015 to 2016 by the NGOs and the community. Patrols stopped due to unavailability of community members

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

☑ Not applicable (No adverse economic incentives exist)

1.4 Reduction of incidental capture and mortality

1.4.1 Indicate, and describe in more detail, the main fisheries occuring in the waters of your country, as well as any high seas fisheries in which flag vessels of your country participate and interact with marine turtles.

Tick 'YES' to indicate that a fishery is present and interacting marine turtles or 'NO' to indicate that a

fishery is not present or is not interacting with marine turtles. **[INF]**
If a fishery is present, use the text box to indicate, for example, the approximate geographic distribution of the fishery, how long it has been operating, how many vessels are involved, etc.

a) Shrimp trawls:
☑ No (Please provide details)

b) Set gill nets:
☑ No (Please provide details)

c) Anchored Fish Aggregating Devices (FADs):
☑ Yes (Please provide details)

› 22 FADs have been deployed and are operational around Mauritius

d) Purse seine (with or without FADs):
☑ Yes (Please provide details)

› 3 Purse Seiners are under operation in the Mauritian waters

e) Longline (shallow or deepset):
☑ Yes (Please provide details)

› Longline fishery is operational in Mauritian water by both national and foreign vessels

f) Driftnet:
☑ No (Please provide details)

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]. Select from one of the following descriptions: RELATIVELY HIGH, MODERATE, RELATIVELY LOW, NONE (i.e. not present), UNKNOWN (i.e. unable to answer for whatever reason).

a) Shrimp trawls
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing efforts:	☐	☐	☑	☐	☐
Perceived impact:	☐	☐	☐	☐	☐

c) Anchored Fish Aggregating Devices (FADs)
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing effort:	☐	☐	☐	☑	☐
Perceived impact:	☐	☑	☐	☐	☐

- Source of information / clarification
› From the fish landing data, no turtle has been reported to be caught within FAD areas

d) Purse seine (with or without FADs)
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing efforts:	☐	☐	☑	☐	☐
Perceived impact:	☐	☐	☑	☐	☐

e) Longline (shallow or deepset)
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing effort:	☐	☐	☑	☐	☐
Perceived impact:	☑	☐	☐	☐	☐

- Source of information / clarification
› NA

- Source of information / clarification
› 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 in 2010 .
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 of Government departments, Private Sector and NGO has been set up for the conservation of marine turtles.
Moreover, the Fisheries and Marine Resources Act 2007 is being reviewed and new enforcing actions have been included to fight against turtle poaching.

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 fishersusing equipment such as de-hooking, line cutting tools and scoop nets)
☑ YES (Details/future plans)

› Circular hooks are being used and net fishing is being reduced within the lagoon

b) **Devices that allow the escape of marine turtles** (e.g. turtle excluder devices (TEDs) or other measures that are comparable in effectiveness)
☑ UNDER INVESTIGATION or NOT APPLICABLE (Details/future plans)

c) **Measures to avoid encirclement** of marine turtles in purse seine
☑ UNDER INVESTIGATION or NOT APPLICABLE (Details/future plans)

d) **Appropriate combinations** of hook design, type of bait, depth, gear specifications and fishing practices
☑ YES (Details/future plans)

› circular hooks are being used and net fishing are being reduced in the lagoon

e) **Monitoring and recovery of fish aggregating devices** (FADs)
☑ YES (Details/future plans)

› FADs are being maintained every two month around Mauritius

f) **Net retention and recycling schemes**
☑ YES (Details/future plans)

› New policy has been put in place to buy back from net fishing fishermen

g) **Spatial and temporal control of fishing** (e.g. seasonal closures of fishing activities)
☑ YES (Details/future plans)

› As per the Fisheries and Marine Resources Act 2007, there are closure periods for some species of fish (e.g. Sea cucumber, octopus)

h) **Effort management control**
☑ YES (Details/future plans)

› 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.

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]

Please use the corresponding text boxes to explain/clarify each of your responses, including 'NOT APPLICABLE' responses, and indicate future plans in this regard. [IND]
Please describe the collaboration, when/where the programmes were introduced, any difficulties encountered, and general results obtained (i.e. successful and unsuccessful). Provide references to publications, where available.

a) **Onboard observer programmes**

X
☑ YES (Details/future plans)

› On scientific missions (SWIOFP) and as observer during fishing activities on board of fishing vessels

b) **Vessel monitoring systems**
☑ YES (Details/future plans)

› Fully operational

c) **Inspections** (i.e. at sea, in port, at landing sites)
☑ YES (Details/future plans)

› At sea, in Port and at fish landing sites

d) **Training programmes / workshops** to educate fishers
☑ YES (Details/future plans)

› Training on all aspects including safety, resource management and conservation are given to fishermen at the Fisheries Training and Extension Centre (FiTEC)

e) **Informative videos, brochures, printed guidelines** etc.
☑ YES (Details/future plans)

› 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.
Posters have been presented during Scientific Conferences
A booklet has been designed and used as sensitisation material during school educational programmes by NGOs

1.4.6 Are the mitigation measures described in 1.4.4 and 1.4.5 periodically reviewed and evaluated for their efficiency? **[SAP]**
☑ YES (Please give details)

› Meetings are carried out every two months under the Collaborative Marine Turtle Network

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.
Stranded and Dead Marine Turtle have been recorded to evaluate the most frequent type of death or injury reported for marine turtles

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 (If yes, please give details of the exchanges/technical assistance)

› Technical Assistances with KELONIA, Reunion Island is on-going and an MoU is underway to formalise the assistance of Kelonia to this Ministry

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]**
› The use of large scale drift nets is not authorised in maritime zones of of Mauritius.

1.5 Addressing harvest of, and trade in, marine turtles; and protecting of habitat

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]**

Please provide details (title/date) of the relevant legislation, as well as any exemptions (e.g. for traditional harvest) under that legislation.
☑ YES

› Para 16 (1) (c) of Section IV and Para 17 (1) (c) of Section IV of the Fisheries and Marine Resources Act 2007 prohibits the trade, possession and fishing of any live, dead or stuffed turtles and anything related to them.

1.5.2 Which, among the following list, are economic uses and cultural values of marine turtles in your country? [INF]

Please rate the relative prevalence / importance of each consumptive or non-consumptive use.
Use the text boxes below each rating to explain or clarify your responses.

a1) Meat consumption
☑ YES

› 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).

a2) Meat consumption: relative prevalence/importance
☑ UNKNOWN

› Only in Agalega it has been reported of presumedly turtle meat consumption

b1) Egg consumption
☑ YES

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

b2) Egg consumption: relative prevalence/importance
☑ UNKNOWN

c1) Shell products
☑ YES

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

c2) Shell products: relative prevalence/importance
☑ UNKNOWN

d1) Fat consumption
☑ YES

› (Chapman and Swinnerton 1996)

d2) Fat consumption: relative prevalence/importance
☑ UNKNOWN

e1) Traditional medicine
☑ YES

› It has been reported that the blood of turtle can cure asthma according to traditional fishermen

e2) Traditional medicine: relative prevalence/importance
☑ UNKNOWN

f1) Eco-tourism programmes
☑ NO

g1) Cultural / traditional significance
☑ NO

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

	RELATIVELY HIGH	UNKNOWN	NONE	RELATIVELY LOW	MODERATE
Level of harvest:	☐	☑	☐	☐	☐
Impact of harvest:	☐	☑	☐	☐	☐

Source of information / explanation:
› Not applicable, Harvest is not authorised under the Fisheries and Marine Resources Act.

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

Use the text box to give details.
☑ UNKNOWN

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

1.5.5 Describe any management agreements negotiating 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 countries.

1.6 Minimizing mortality through nesting beach programmes

1.6.1 Measures and effectiveness

First, tick one of the YES/NO-boxes 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]**

Use the text boxes below each rating to elaborate on your responses, including any lessons learned that might be of value to other Signatory States, and indicate your plans for the coming year. Please explain any “Not Applicable (N/A)” responses.

a1) Monitoring/protection programmes
☑ YES

a2) Monitoring/protection programmes: relative effectiveness
☑ GOOD

b1) Education/awareness programmes
☑ YES

b2) Education/awareness programmes: Relative effectiveness
☑ GOOD

c1) Egg relocation/hatcheries
☑ YES

› As and when required only

c2) Egg relocation/hatcheries: Relative effectiveness
☑ UNKNOWN

› No relocation carried out to date

d1) Predator control
☑ YES

› Stray Dog Control

d2) Predator control: Relative effectiveness
☑ LOW

e1) Vehicle / access restrictions

☑ YES

e2) Vehicle/access restriction: relative effectiveness
☑ EXCELLENT

› Under the Beach Authority Act, no vehicle is allowed to operate on the beach

f1) **Removal of debris / clean-up**
☑ YES

f2) Removal of debris /clean-up: relative effectiveness
☑ GOOD

› The contractors that clean the beaches have been notified on the procedures of not disturbing turtle nests

g1) Re-vegetation of frontal dunes
☑ YES

› Certain beach areas have been planted with local creeper species that will help reduce soil erosion

g2) Re-vegetation of frontal dunes: relative effectiveness
☑ GOOD

h1) Building location/design regulations
☑ YES

› An Environmental Impact Assessment (EIA) is required by the law before any construction is made in the coastal zone. Plus, the construction set back has been moved from 15 m to 30m from the high water mark.

h2) Buidling location/design regulations: relative efectiveness
☑ EXCELLENT

i1) Light pollution reduction
☑ YES

› New type of turtle friendly lighting are being recommended during EIA recommendations at potential turtle sites

i2) Light pollution reduction: Relative effectiveness
☑ UNKNOWN

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

Use the text box to elaborate on your response, if necessary.
☑ YES

› Yearly surveys are being carried out at known nesting sites and recommendations for the management of the beaches are being presented during applicable meetings and committees

OBJECTIVE II: PROTECT, CONSERVE AND REHABILITATE MARINE TURTLE HABITATS

2.1 Measures to protect and conserve 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 sensitise public on the importance of conservation of marine turtles.

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

Use the text box to elaborate on your response.
☑ YES

› 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) monitoring near turtle habitats? If yes, describe the nature of this monitoring and any remedial measures that may have been taken. **[SAP]**
☑ NO

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

Use the text box to elaborate on your response.
☑ YES

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

2.2 Rehabilitation of degraded marine turtle habitats

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

Provide sufficient details of the measures taken, especially those measures shown to have been effective in recovering degraded coral reefs. Please indicate future plans in this regard.
☑ YES (Details/future plans)

› 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 (Details/future plans)

› 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 m2 (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).
Mangroves plants are protected and cannot be removed.
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 (Details/future plans)

› 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.
A new project on Seagrass Monitoring and Management consisting of mapping the seagrass beds around Mauritius Island, establishing monitoring sites and rehabilitation has already been started at the level of the Ministry

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

3.1 Studies on marine turtles and their habitats

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.
Ramah, S., Chung Voon, A.T. and Beetul, K. (2019) First encounter of a stranded Loggerhead marine turtle entangled in a ghost net on the Southeast coast of Mauritius Island. Indian Ocean Turtle Newsletter 30: 8-9.

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]**

Please give details of the nature, duration and continuity of these programmes.
☑ YES

› Under the collaborative marine turtle network comprising of Public sectors, private sectors and NGOs.

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

Please give details (e.g. which species, which populations?).
☑ NO

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]

a) Tagging
☑ YES (Details/future plans)

› Stranded turtles and injured turtles are being tagged before release

b) Satellite tracking
☑ NO (Details/future plans)

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

› Data on the stranding causes, injury, death have been recorded and are available since 2012.
Follow ups and monitoring of are carried out to assess survival rate of released turtles.

3.1.6 Has research been conducted on the frequency and pathology of diseases in marine turtles? **[INF, PRI]**
☑ NO

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

3.2 Collaborative research and monitoring

- 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]**

Use the text box to elaborate on your response.
› No regional action plans have been set yet. However, following the finalisation of the MoU between Kelonia, Reunion Island and Mauritius, several protocols are going to be established.

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
☑ NO (Details/future plans)

b) Conservation status
☑ NO (Details/future plans)

c) Migrations
☑ NO (Details/future plans)

d) Other biological and ecological aspects
☑ NO (Details/future plans)

3.3 Data analysis and applied research

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).
However, no updated research has been carried out to date.

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]**
☑ NO

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]**
› NA

3.4 Information exchange

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 [If yes, please give details of the agreed protocol(s)]

› Under the SWIOFP regional project, the coutntries have undergone training in the identificstion and biology of marine
turtles . A uniform data collection method is also being put in place.
Also on-going with Kelonia, Reunion Island

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

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]**
› Through Technical and Expert Exchange Programme and by sending records to the TORSOOI software to record the turtles.

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

Please give details **[INF]**
☑ NO

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

4.1 Public education and information programmes

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

Details/future plans:
› 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 (AFRC).
Moreover, a video on the full process of nesting till the hatchling has been made by the AFRC and is being used during sensitisation process.
A turtle guide book has been designed and distributed to primary school students under the Collaborative Marine Turtle Network.

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
☑ Local/Fishing communities
☑ Media
☑ Teachers
☑ Students
☑ Military, Navy, Police
☑ Scientists
☑ Other (describe):

› General public

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

Please give details and indicate future plans
☑ YES

› the AFRC acts as a information centre for the public.
More recently, the Blue Bay Marine Park Centre is operational and is being used which will be used as an educational centre as well.

4.2 Alternative livelihoods opportunitiesDescribe initiatives already undertaken or planned to identify and facilitate alternative livelihoods (including income-generating activities) for local communities. **[IND, BPR]**
› None

4.3 Stakeholder participation

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]**
› Several sensitisation programmes have been initiated and is on-going under the Collaborative Marine Turtle Network.
The community was also an integral part of the beach patrollers which were doing beach surveys for turtle nesting and poaching sightings.

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]**
› By setting up the Collaborative Marine Turtle Network in 2014 consisting of public, private and , the platform has since been used to develop strategies for conservation, action plans and protocols. The platform is also used to initiate new research and educational project.

OBJECTIVE V: ENHANCE NATIONAL, REGIONAL AND INTERNATIONAL COOPERATION

5.1 Collaboration with, and assistance to, signatory and non-signatory States

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]**
☑ NO

5.1.2 Does your country have, or participate/cooperate in, CITES training programmes for relevant authorities? **[SAP]**
☑ NO

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]**

Please give details of particularly successful interventions and prosecutions; and/or mention any difficulties experienced that impede progress in this area. Please provide references to any published reports (e.g. already prepared for CITES purposes) that give a more ample explanation.
☑ YES

› through import and export permit system and through inspection of products

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]**
› Through Sensitisation Campaign and educational programmes. Turtles are protected species in the Fisheries and Marine Resources Act.
Inspections are carried out by custom officers at the airports.

5.2 Prioritisation, development and implementation of national action plans

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]**

Please explain.
☑ YES

› Through the Marine Turtle Encounter Response Proceedure Plan and the Action Plan for Stranded Marine Mammal and turtles

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?
(List up to 10 activities from the IOSEA Conservation and Management Plan). **[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)
The sites that needs prior management are Flat Island and St Brandon Island

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 achieve progress. **[PRI]**
In other words, how important is **international** cooperation for addressing these issues?
Please select only one per line

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

5.3 Cooperation and Information exchange

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]**
› (i) CITES (Convention on the International Trade of Endangered Species of Wild Fauna and Flora) whereby trade in specimens of these species is permitted only in exceptional circumstances.
(ii) Resolution 18/08, 17/04, 17/07, 12/04 by the Indian Ocean Tuna Commission (IOTC)
(iii) Memorandum of Understanding on the Conservation and Management of Marine Turtles and their habitats in the Indian Ocean and South East Asia (IOSEA marine turtle) under the Convention on Migratory Species of Wild Animals (CMS)

5.3.2 Has your country developed, or is it participating in, any networks for cooperative management of shared turtle populations? **[BPR, INF]**
☑ NO

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? Please describe the interventions made in this regard, referring to specific RFBs. **[SAP]**
› Supported the IOTC Resolution on turtles.

5.4 Capacity-building

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.
Expert Exchange on Marine Turtle Conservation, Treatment, Rehabilitation and Handling in Kelonia, Reunion Island
Future training is envisaged following the signing the MoU

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]**
› an MoU is being finalised with Kelonia, Reunion Island.
The University of Mauritius is being involved in the Collaborative Marine Turtle Network to initiate future research on marine turtles

5.5 Enforcement of conservation legislation

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]**

Please give details.
☑ YES

› The Fisheries and Marine Resources Act 2007 is being reviewed and updated. The law to protect marine turtles will be further strengthened.

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]**

Please give details.
☑ YES

› 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 CMP

6.1 IOSEA Marine Turtle MoU membership and activities

6.1.2 Is your country **currently** favourable, in principle, to amending the MoU to make it a legally binding instrument? **[INF]**
☑ 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 (Use the text box to elaborate on your response, if necessary)

6.2 Secretariat and Advisory Committee

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 vuluntary contribution of US $ 750 annually to the IOSEA MoU for Marine Turtles.

6.3 Resources to support implementation of the MoU

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 organizations, industry, private sector, foundations or NGOs for marine turtle conservation activities? **[IND]**
☑ YES (If yes, give details of the approaches made (both successful and unsuccessful))

› Through the Collaborative Marine Turtle Network, Private sectors through their CSR scheme have been funding the project

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

6.4 Coordination among government agencies

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]**

Please elaborate, as necessary.
☑ YES

› The Albion Fisheries Research Centre under the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping

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]**

Use the text box to elaborate.
☑ YES

› The Ministry coordinates activities for the conservation of marine turtles. These are specified within the Fisheries and Marine Resources Act 2007

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]**

This question seeks to ascertain whether Signatories have made a serious examination of which agencies have a role to play in marine turtle conservation, either directly or indirectly, and which therefore should be apprised of the IOSEA MoU and its provisions.
If no internal review of interagency roles and responsibilities has been or will be undertaken, please elaborate if only to indicate that the necessary arrangements are already clear and not in need of further review.

☑ NO (Use the text box to elaborate)

› The Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping is the sole government organisation responsible for the conservation of marine turtles. The
Private Sector/ NGOs particpate in the conservation process with other stakeholders.

ANNEX 1: SPECIES, HABITAT AND THREAT DATA [PRI, INF]
PLEASE COMPLETE A SEPARATE SECTION FOR EACH SITE/AREA

Site 1

Name of site/area:
› Flat Island

Geographic coordinates (North/South)
☑ South

› 19°52'29.52"S 57°39'48.07"E

On-site research activities:
☑ Genetic Sampling
☑ Foraging surveys

Province / State:
› NA (Outer Island of Mauritius)

Name of person / agency wwho has provided the information:
› Sundy Ramah ,Technical Officer/ Albion Fisheries Research Centre

Information was last updated: (dd/mm/yyyy)
› 04/10/2019

Short description of the site (optional):
› Flat Island, is a small island off the north coast of Mauritius. It is located 11 kilometers north of Cap Malheureux, the mainland's northernmost point. The small nature reserve of Coin de Mire lies between the two islands.
Flat Island is a popular venue for snorkelers, and access to the island is possible via chartered yacht from the mainland. In addition the Pigeon Rock area harbors an internationally famous dive site called The Shark Pit. The island's structures include one of Mauritius's few operating lighthouses, a cemetery and a National Coast Guard Outpost. Many tourists visit the island during the day for snorkeling or for picnic.

Indicate the species occurence / use and relative importance of the site:

Abbreviations: Loggerhead Caretta caretta (CC); Olive Ridley Lepidochelys olivacea (LO); Green Chelonia mydas CM); Hawksbill Eretmochelys imbricata (EI); Leatherback Dermochelys coriacea (DC); Flatback Natator depressus (ND)
Use one of the following symbols or letters to indicate the presence or absence of a species at this site in the table above, including details (if known) about the relative importance of the site for nesting, feeding or development.

Insufficient information is available on the presence or absence of the species (leave box empty)

The species is **not present** or does not use this particular habitat type at this site.
?
It is speculated (only) that the species is present at this site and may be using one or more particular habitat types. In the absence of definitive information, place a **?** in the appropriate box(es).
✓
The species is definitely **known to be present** at this site; however no information is available on the relative importance of the site for nesting, feeding or development.
✓
H
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **high importance** for this species, relative to other sites in the country.
✓
A
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **average importance** for this species, relative to other sites in the country.
✓
L
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **lower importance** for this species, relative to other sites in the country.
a - h
Additional information on nesting habitat (where available):

Indicate the estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the

letters ‘ **a** ’ through ‘ **f** ’, corresponding to the following scale: **a**: 1 - 10 nests ; **b**: 11 - 100 nests ; **c**: 101 - 500 nests ; **d**: 501 - 1,000 nests ; **e**: 1,001 - 5,000 nests ; **f**: 5,001 - 10,000 nests ; **g**: 10,001 - 100,000 nests; **h**: more than 100,000 nests

	ND Flatback	DC Leatherback	EI Hawksbill	CM Green	LO Olive Ridley	CC Loggerhead
Nesting			✓	✓ H, b		
Feeding			✓ L	✓ H		
Developmental			?	✓ H		

Describe the nature of and intensity of threats to marine turtles at this site:

	High (common occurence)	Medium	Low (rare event)	None	Unknown
Exploitation of nesting females (i.e. direct harvest on land)				✓	
Direct harvest of animals in coastal waters at or near the site				✓	
Egg collection (i.e. direct harvest by humans)				✓	
Incidental capture in coastal fisheries			✓		
Boat strikes		✓			
Marine debris (e.g. plastics at sea, flotsam)			✓		
Industrial effluent				✓	
Inshore oil pollution				✓	
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		✓			
Artificial lighting (on land or near shore)			✓		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		✓			
Vehicles				✓	
Sand mining / removal				✓	
Natural threats, disease, predation of nests/nesting females (e.g. by domestic / feral animals), or natural predation at sea					✓
Other (type in):					

What measures have been introduced to remove threats to marine turtles at this site?
☑ Education / awareness programmes

Please give further details or clarification about any of the information provided, as appropriate / necessary.
› Monitoring of sites for nesting is being carried out every year during nesting seasons which is between

September to January

Site 2

Name of site/area:
› Saint Brandon

Geographic coordinates (North/South)
☑ South

› 16°35'58.25"S; 59°41'14.19"E

On-site research activities:
☑ Genetic Sampling
☑ Foraging surveys

Province / State:
› Outer Island of Mauritius

Name of person / agency wwho has provided the information:
› Sundy Ramah , Technical Officer / Albion Fisheries Research Centre

Information was last updated: (dd/mm/yyyy)
› 20/03/2019

Short description of the site (optional):
› Saint Brandon, also known as the Cargados Carajos Shoals, consists of 35 small islets and sand bars approximately 400 km north-northeast of Mauritius. Collectively the islands make up approximately 5 km2 of land and mostly situated within a 312 km2 lagoon, surrounded by 130 km of reef. The archipelago represents the most important seabird and marine turtle nesting grounds under the jurisdiction of the Republic of Mauritius.

Indicate the species occurence / use and relative importance of the site:

Abbreviations: Loggerhead Caretta caretta (CC); Olive Ridley Lepidochelys olivacea (LO); Green Chelonia mydas CM); Hawksbill Eretmochelys imbricata (EI); Leatherback Dermochelys coriacea (DC); Flatback Natator depressus (ND)
Use one of the following symbols or letters to indicate the presence or absence of a species at this site in the table above, including details (if known) about the relative importance of the site for nesting, feeding or development.

Insufficient information is available on the presence or absence of the species (leave box empty)

The species is **not present** or does not use this particular habitat type at this site.
?
It is speculated (only) that the species is present at this site and may be using one or more particular habitat types. In the absence of definitive information, place a **?** in the appropriate box(es).
✓
The species is definitely **known to be present** at this site; however no information is available on the relative importance of the site for nesting, feeding or development.
✓
H
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **high importance** for this species, relative to other sites in the country.
✓
A
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **average importance** for this species, relative to other sites in the country.
✓
L
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **lower importance** for this species, relative to other sites in the country.
a - h
Additional information on nesting habitat (where available):

Indicate the estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' **a** ' through ' **f** ', corresponding to the following scale: **a**: 1 - 10 nests ; **b**: 11 - 100 nests ; **c**: 101 - 500 nests ; **d**: 501 - 1,000 nests ; **e**: 1,001 - 5,000 nests ; **f**: 5,001 - 10,000 nests ; **g**: 10,001 - 100,000 nests; **h**: more than 100,000 nests

	ND Flatback	DC Leatherback	EI Hawksbill	CM Green	LO Olive Ridley	CC Loggerhead
Nesting			✓ A,	✓ H, e		
Feeding			✓ A	✓ H		
Developmental			✓ A	✓ H		

Describe the nature of and intensity of threats to marine turtles at this site:

	High (common occurence)	Medium	Low (rare event)	None	Unknown
Exploitation of nesting females (i.e. direct harvest on land)				✓	
Direct harvest of animals in coastal waters at or near the site			✓		
Egg collection (i.e. direct harvest by humans)				✓	
Incidental capture in coastal fisheries			✓		
Boat strikes			✓		
Marine debris (e.g. plastics at sea, flotsam)		✓			
Industrial effluent				✓	
Inshore oil pollution				✓	
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)			✓		
Artificial lighting (on land or near shore)			✓		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		✓			
Vehicles				✓	
Sand mining / removal				✓	
Natural threats, disease, predation of nests/nesting females (e.g. by domestic / feral animals), or natural predation at sea					✓
Other (type in):					

Please give further details or clarification about any of the information provided, as appropriate / necessary.
› Monitoring of tracks and nesting carried out every two years through collaborative expeditions.

Site 3

Name of site/area:
› Blue Bay Marine Park

Geographic coordinates (North/South)
☑ South

› 20°26'37.90"S 57°42'44.36"E

On-site research activities:
☑ Foraging surveys

Province / State:
› South of Mauritius Island

Name of person / agency wwho has provided the information:
› Dr Pramod Kumar Chumun / Eco-Sud/ Lagon Blue (Under Collaborative Marine Turtle Network)

Information was last updated: (dd/mm/yyyy)
› 04/10/2019

Short description of the site (optional):
› The Blue Bay marine park, situated on the South East coast of Mauritius near Mahebourg, is one of the best places to see the beautiful marine life and to go for snorkeling in Mauritius. The total area of the Marine Park is 353 hectares; it includes the lagoon and extends about one kilometer seaward from the reef crest.

Indicate the species occurence / use and relative importance of the site:

Abbreviations: Loggerhead Caretta caretta (CC); Olive Ridley Lepidochelys olivacea (LO); Green Chelonia mydas CM); Hawksbill Eretmochelys imbricata (EI); Leatherback Dermochelys coriacea (DC); Flatback Natator depressus (ND)
Use one of the following symbols or letters to indicate the presence or absence of a species at this site in the table above, including details (if known) about the relative importance of the site for nesting, feeding or development.

Insufficient information is available on the presence or absence of the species (leave box empty)

The species is **not present** or does not use this particular habitat type at this site.
?
It is speculated (only) that the species is present at this site and may be using one or more particular habitat types. In the absence of definitive information, place a **?** in the appropriate box(es).
✓
The species is definitely **known to be present** at this site; however no information is available on the relative importance of the site for nesting, feeding or development.
✓
H
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **high importance** for this species, relative to other sites in the country.
✓
A
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **average importance** for this species, relative to other sites in the country.
✓
L
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **lower importance** for this species, relative to other sites in the country.
a - h
Additional information on nesting habitat (where available):

Indicate the estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' **a** ' through ' **f** ', corresponding to the following scale: **a**: 1 - 10 nests ; **b**: 11 - 100 nests ; **c**: 101 - 500 nests ; **d**: 501 - 1,000 nests ; **e**: 1,001 - 5,000 nests ; **f**: 5,001 - 10,000 nests ; **g**: 10,001 - 100,000 nests; **h**: more than 100,000 nests

	ND Flatback	DC Leatherback	EI Hawksbill	CM Green	LO Olive Ridley	CC Loggerhead
Nesting						
Feeding			?	✓		
Developmental			✓	✓		

Describe the nature of and intensity of threats to marine turtles at this site:

	High (common occurence)	Medium	Low (rare event)	None	Unknown
Exploitation of nesting females (i.e. direct harvest on land)				✓	
Direct harvest of animals in coastal waters at or near the site				✓	
Egg collection (i.e. direct harvest by humans)				✓	
Incidental capture in coastal fisheries				✓	
Boat strikes				✓	
Marine debris (e.g. plastics at sea, flotsam)					✓
Industrial effluent				✓	
Inshore oil pollution				✓	
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				✓	
Artificial lighting (on land or near shore)				✓	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			✓		
Vehicles				✓	
Sand mining / removal				✓	
Natural threats, disease, predation of nests/nesting females (e.g. by domestic / feral animals), or natural predation at sea					✓
Other (type in):					

Please give further details or clarification about any of the information provided, as appropriate / necessary.

› Survey on marine turtle occurence within the Marine Park is being carried out by the Eco-Sud/Lagon Bleu (NGO) through the Collaborative Marine Turtle Network.