



**CMS**

## **IOSEA Marine Turtles Memorandum of Understanding - National Report 2024**

### **INSTRUCTIONS FOR COMPLETING THE NATIONAL REPORTING QUESTIONNAIRE:**

The main purpose of completing the National Reporting Questionnaire (NRQ) is to provide information on your country's implementation of the IOSEA Marine Turtle MOU, including its Conservation and Management Plan (CMP) and the IOSEA Work Programme adopted by the 8th Meeting of Signatory States. Please include activities undertaken by the government, non-governmental organizations, private sector and other relevant stakeholders.

The IOSEA Secretariat will analyze national reports and use the provided information to facilitate marine turtle conservation work using the resources at its disposal, as well as in fundraising efforts. The information will also be used to raise any issues, as mandated by IOSEA Signatories, at relevant political fora, such as CMS, CITES, or Regional Fisheries Management Organizations.

Most importantly, collecting information of relevance to marine turtle conservation in the NRQ can help national decision makers to plan marine turtle conservation activities within countries and sub-regions, and guide national and international project planners and donors.

The NRQ is structured to reflect progress in implementation of the six objectives of the CMP: There are two modalities of the NRQ: it can be accessed via the online reporting system (ORS) or filled out using an MS Word file. However, the Word version should be used only if using the online questionnaire is not possible for technical reasons (e.g. the internet connection is too unreliable).

Please answer all questions as fully and as accurately as possible. Wherever possible, please indicate the source of information used to answer the question, particularly if a published reference or report is available. Comprehensive responses to the questions posed in Section 1.4 should also satisfy many of the reporting requirements of the 2009 FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations, thereby avoiding duplication of effort.

When working on the online version of the NRQ, 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. If additional information is available (e.g. published reports, maps) please attach it to this questionnaire. If working on an offline MS Word file, please submit the completed NRQ by email to the IOSEA Secretariat ([iosea@un.org](mailto:iosea@un.org)); with a copy to the Coordinator ([heidrun.frisch-nwakanma@un.org](mailto:heidrun.frisch-nwakanma@un.org)), as a Word attachment.

# GENERAL INFORMATION

Signatory State:

>>> Seychelles

List any other agencies, institutions, or NGOs that have provided input:

>>> Seychelles Fisheries Authority (SFA)

Literatures, work, programmes etc of other institutions, NGOs etc have been cited/mentioned in this report eg SPGA, SIF, ICS, MCSS, Nature Seychelles etc

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

>>> 22 January 2003

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

>>> 2024

Designated Focal Point (and full contact details):

>>> Ms. Ashley Dias

Director Biodiversity Conservation Section

Biodiversity Conservation and Management Division

Department of Environment

Mont Fleuri, Arti Chamber suite 202

email: a.dias@env.gov.sc

Tel: +248 4670576

Other relevant contacts:

>>> Dr Frauke Dogley

Chief Executive Officer

Seychelles Islands Foundation

CMS National Focal Point

email: ceo@sif.sc

# MARINE TURTLE SPECIES AND HABITATS

Provide sources of information supporting the responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

## 0.1 Overview of marine turtles and their habitats in the IOSEA MOU Signatory States within the IOSEA region.

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

### a) Please list marine turtle species and genetic stocks in your country, give a general population estimate and trend for your country and indicate where they occur.

|  | Population trend (increase, decrease, stable, unknown) | Number of egg clutches per year | Species, genetic stock | Type of habitat (nesting, feeding developmental)? | Geographic area |
|--|--|---------------------------------|------------------------|---|-----------------|
|  |  |                                 |                        |   |                 |
|  |  |                                 |                        |   |                 |
|  |  |                                 |                        |   |                 |
|  |  |                                 |                        |   |                 |
|  |  |                                 |                        |   |                 |

### b) Do government agencies and/or scientific institutions submit data on the occurrence and population numbers of marine turtles to an international database?

NO

Name of database:

>>> n/a

### c) Does your country have index nesting beaches in the IOSEA region?

YES

### d) Does your country have an IOSEA Network site?

YES

## 0.2 Site-specific information

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

Please fill out the following section for index beaches and/or IOSEA Site Network Sites in your country. If there are no such beaches or sites in your country, please leave this section blank. **An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term.**

An index beach may be located in a remote area or close to human settlements with influence of anthropogenic activities.

Please complete a separate section for each site.

### Sites

#### Site 1

#### a) Provide the name, location and length of the site

Name of the site:

>>> Aldabra

State/province:

>>> Seychelles

Latitude and longitude (middle of the beach or two from either end of the beach):

>>> South > 9.4237° S, 46.3433° E

Length:

>>> Aldabra is a huge atoll and, at 35 km by 15 km, is the largest of the Seychelles islands, with a land area of around 155 km<sup>2</sup> and a total protected area of 2559 km<sup>2</sup> (including the lagoon, land and marine protected area).

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

YES

**c) Is this an IOSEA Network Site?**

YES

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

YES

Details:

>>> Aldabra is a special reserve since 1981 under the national parks and nature conservancy act, now the Nature Reserves and Conservancy Act (2022). This means that Aldabra has been completely protected for 43 years with no extraction of the resources, no destruction of habitat and enforced protection of the marine protected area.

UNESCO World Heritage Site. Seychelles ratified the World Heritage convention in 1980 and Aldabra Atoll (inscribed in 1982)

BirdLife International declared Aldabra as an Important Endemic Bird Area in 2001 on account of its large seabird colonies.

The Atoll is an important Sharks and Rays Area

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

>>> Aldabra has the second largest population of nesting green turtles (*Chelonia mydas*) in the Western Indian Ocean. Between 1968 and 2008 there was an astonishing 500–800% increase in the number of nesting green turtles on Aldabra, with around 3100–5225 female turtles recorded as nesting annually in 2008 (Mortimer et al, 2011). This number has continued to increase and if current trends are sustained it is likely that Aldabra will become the most important nesting site in the region for this endangered species.

Aldabra's turtle monitoring programme offers the longest continuous record of protection for nesting green turtles (*Chelonia mydas*) in the Western Indian Ocean.

Long Term Monitoring of nesting populations: 1981-present

Mark-Recapture Study of Foraging Sea Turtles: 1986 to present

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', 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. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.**

|   | How often is this species monitored? | Monitored since (year) | Trend (decreasing, increasing, stable) | Number of clutches per year | Species present at this location? |
|---|--------------------------------------|------------------------|--|-----------------------------|-----------------------------------|
| Flatback ( <i>Natator depressus</i> )         | N/A                                  | N/A                    | N/A                                    | N/A                         | No                                |
| Olive ridley ( <i>Lepidochelys olivacea</i> ) | N/A                                  | N/A                    | N/A                                    | N/A                         | No                                |

|   |          |      |            |     |     |
|---|----------|------|------------|-----|-----|
| Hawksbill ( <i>Eretmochelys imbricata</i> ) | Annually | 1981 | stable     |     | Yes |
| Leatherback ( <i>Dermochelys coriacea</i> ) | N/A      | N/A  | N/A        | N/A | No  |
| Green ( <i>Chelonia mydas</i> )             | Annually | 1981 | increasing |     | Yes |
| Loggerhead ( <i>Caretta caretta</i> )       | N/A      | N/A  | N/A        | N/A | No  |

**g) Please estimate the approximate area of adjacent in-water habitat for this site.**

15-100 km<sup>2</sup>

**h) Please fill out the following table for the in-water habitat of the site. Please include information on population number and trend, if available.**

|   | How often is this species monitored? | Monitored since (year) | Trend (decreasing, increasing, stable) | Population number | Are marine turtles monitored in water? | Species present at this location |
|---|--------------------------------------|------------------------|--|-------------------|--|----------------------------------|
| Flatback ( <i>Natator depressus</i> )         | n/a                                  | n/a                    | n/a                                    | n/a               |  | n/a                              |
| Olive ridley ( <i>Lepidochelys olivacea</i> ) | n/a                                  | n/a                    | n/a                                    | n/a               |  | n/a                              |
| Hawksbill ( <i>Eretmochelys imbricata</i> )   | Annually                             | 1981                   | stable                                 |                   | yes                                    | yes                              |
| Leatherback ( <i>Dermochelys coriacea</i> )   | n/a                                  | n/a                    | n/a                                    | n/a               |  | n/a                              |
| Green ( <i>Chelonia mydas</i> )               | Annually                             | 1981                   | increasing                             |                   | yes                                    | yes                              |
| Loggerhead ( <i>Caretta caretta</i> )         | n/a                                  | n/a                    | n/a                                    | n/a               |  | n/a                              |

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

|   | High (common occurrence) | Medium                   | Low (rare event)                    | None                                | Unknown                  |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| Other (type in)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| Predation by domestic / feral animals (cats, dogs)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Natural threats, disease, predation of nests/nesting females or natural predation at sea    | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Sand mining / removal   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Vehicles  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)              | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Artificial lighting (on land or near shore)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|   |                                     |                          |                          |                                     |                          |
|---|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Inshore oil pollution   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Industrial effluent   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Marine debris (e.g. plastics at sea, flotsam)                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Boat strikes  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Incidental capture in coastal fisheries                         | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Egg collection (i.e. direct harvest by humans)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Direct harvest of animals in coastal waters at or near the site | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Exploitation of nesting females (i.e. direct harvest on land)   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Other threat:

>>> n/a

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please choose from the list below:**

- Training/ capacity building for researchers and field workers
- Training/ capacity building for authorities and/or managers
- Training/capacity building for project development, fundraising, execution, evaluation
- Scientific equipment and/or technical support
- Technical expertise to enhance conservation or management at the site

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

>>> <https://sharkrayareas.org/portfolio-item/aldabra-atoll-isra/>  
<https://www.cms.int/iosea-turtles/en/document/updates-status-iosea-network-sites-aldabra-atoll>  
<https://www.sif.sc/downloads> - Annual reports, scientific publications

**Sites**

**Site 2**

**a) Provide the name, location and length of the site**

Name of the site:

>>> > North Island Seychelles

State/province:

>>> Seychelles

Latitude and longitude (middle of the beach or two from either end of the beach):

>>> South > 4.3950°S, 55.2453° E

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

## 1.1 BEST PRACTICE APPROACHES TO MINIMIZING THREATS

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

**1.1.1. Are there any best practice protocols relating to the protection of marine turtles and their habitats used in your country that you would like to share with other IOSEA Signatories? Please name the protocols and describe briefly, providing references or links to more detailed reports or online texts.**

If more rows are required, please contact the secretariat at [iosea@un.org](mailto:iosea@un.org)

|  | References and links  | Has the effectiveness of this approach been evaluated? What was the result? | What does this approach/ protocol help to achieve   | Title of best practice protocol or approach   |
|--|---|---|---|---|
|  |   | Yes. Development setbacks, protection of key nesting beaches                | Conducted for projects to ensure that threats to sea turtle/ nesting beaches are mitigated  | Environment Impact Assessments  |
|  | <a href="https://seyccat.org/">https://seyccat.org/</a>   | Yes.  | Financing of projects targeting threatened species and their habitats   | Formation of Independent trust fund ( SeyCAAT)                                      |
|  | <a href="https://seymsp.com/the-initiative/">https://seymsp.com/the-initiative/</a>   | Yes. Designation of MPAs  | A practical, transparent and participatory way to plan for the sustainable use of the marine space and to balance demands for development with the need to protect the environment. | Marine Spatial Planning   |
|  | <a href="https://mfa.gov.sc/news/seychelles-plastics-ban-a-hit-at-island-ocean-event-at-the-un/">https://mfa.gov.sc/news/seychelles-plastics-ban-a-hit-at-island-ocean-event-at-the-un/</a> | To some extent. Reduction of plastic waste on nesting beaches               | Better management of plastic waste, especially at nesting beaches   | restriction on manufacturing, importing and distribution of plastic bags and straws |
|  |   | Yes. Monitoring and enforcement prevent and intercept poaching.             | Hotline for environmental crimes 24/7   | Greenline   |
|  |   |   |   |   |
|  |   |   |   |   |
|  |   |   |   |   |
|  |   |   |   |   |

## 1.2 REDUCTION OF INCIDENTAL CAPTURE AND MORTALITY

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

**1.2.1 Indicate, and describe in more detail, the main fisheries occurring in the waters of your country (including territorial waters and the EEZ), as well as any high seas fisheries in which flag vessels of your country participate and interact with marine turtles within the IOSEA region.**

For each of the different fisheries listed below, please indicate whether the fishery is present and use the text box below to provide more detailed information. Please include information on what marine turtle species are affected and number of reported interactions, if known.

### 1) Bottoms trawls (including shrimp trawls)

#### a) Fishing effort:

NONE

**Please provide the information below:**

Number of vessels:

>>> n/a

Boat size (range or average):

>>> n/a

Number of trips per year:

>>> n/a

Mesh size used:

>>> n/a

Geographic distribution:

>>> n/a

If known, turtle species affected:

>>> n/a

Number of bycaught turtles per year:

>>> n/a

Details:

>>> Fishing method not practiced in Seychelles

If applicable, the measures are mandatory under the following regulation:

>>> N/A

**2) Pelagic trawling**

**a) Fishing effort:**

NONE

**Please provide the information below:**

Number of vessels:

>>> n/a

Boat size (range or average):

>>> n/a

Number of trips per year:

>>> n/a

Mesh size used:

>>> n/a

Geographic distribution:

>>> n/a

If known, turtle species affected:

>>> n/a

Number of bycaught turtles per year:



>>> n/a

Details:

>>> Trawling not practiced in Seychelles

If applicable, the measures are mandatory under the following regulation:

>>> n/a

### 3) Set nets

#### a) Fishing effort:

PRESENT

#### Please provide the information below:

Number of vessels:

>>> 40 LICENSES IN 2020

#### b) Methods used by your country to minimise bycatch of marine turtles in this fishery

- Safe handling (as per existing protocols e.g., FAO guidelines) of incidentally caught turtles (e.g. resuscitation or release by fishers using equipment such as de-hooking, line cutting tools and scoop nets)
- Spatial and temporal control of fishing (e.g. seasonal closures of fishing activities)
- Effort management control

If applicable, the measures are mandatory under the following regulations:

>>> Fisheries Act 2014

#### c) Programmes to promote implementation of measures to minimise bycatch of turtles. Please tick the boxes that apply in your country and provide details in the text boxes below.

- Vessel monitoring systems
- Inspections (i.e. at sea, in port, at landing sites)

#### Vessel monitoring systems

The measure is mandatory under the following regulation:

>>> Fisheries Act 2014

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

The measure is mandatory under the following regulation:

>>> Fisheries Act 2014

### 4) Driftnet

#### a) Fishing effort

NONE

#### Please provide the information below:

Number of vessels:

>>> n/a

Boat size (range or average):

>>> n/a

Number of trips per year:

>>> n/a

Mesh size used:

>>> n/a

Geographic distribution:

>>> n/a

If known, turtle species affected:

>>> n/a

Number of bycaught turtles per year:

>>> n/a

## **5) Purse seine (with or without FADs)**

### **a) Fishing effort**

PRESENT

**Please provide the information below:**

Number of vessels:

>>> 44

Number of trips per year:

>>> 3,127 days were spent fishing within Seychelles' EEZ ( 2020 DATA)

Geographic distribution:

>>> Seychelles' EEZ, other EEZs & the High Seas , the Western Indian Ocean region

### **b) Methods used by your country to minimise bycatch of marine turtles in this fishery**

- Safe handling (as per existing protocols e.g., FAO guidelines) of incidentally caught turtles (e.g. resuscitation or release by fishers using equipment such as de-hooking, line cutting tools and scoop nets)
- Monitoring and recovery of fish aggregating devices (FADs)
- Spatial and temporal control of fishing (e.g. seasonal closures of fishing activities)
- Effort management control

If applicable, the measures are mandatory under the following regulations:

>>> Fisheries Act 2014

**c) Programmes to promote implementation of measures to minimise bycatch of turtles. Please tick the boxes that apply in your country and provide details in the text boxes below.**

- Onboard observer programmes
- Vessel monitoring systems
- Inspection (i.e. at sea, in port, at landing sites)

### **Onboard observer programmes**

The measure is mandatory under the following regulation:

>>> Fish

## **6) longline**

## a) Fishing effort

PRESENT

### Please provide the information below:

Number of vessels:

>>> 123

Boat size (range or average):

>>> Vessel length: 180 Vessel width: 180 Gross tonnage: 180 Engine (type) and power: (147) 99

Geographic distribution:

>>> (Seychelles EEZ, foreign EEZ (not further defined) or the High Seas).

### 1.2.4 Has your country provided technical assistance (formally or informally) to other Signatory States of the IOSEA MOU to promote the activities to mitigate incidental catch of marine turtles in fisheries?

UNSURE

### 1.2.5 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?

Details:

>>> Seychelles responded by communicating to the Indian Ocean Tuna Commission (IOTC) to engage all its regional members to commit to sustainable fishing and stop using banned gears.

References and links:

>>>  
<http://www.seychellesnewsagency.com/articles/14406/Seychelles+seeks+more+support+to+get+fishermen+to+stop+using+banned+driftnets>

### 1.2.6 Describe illegal unreported and unregulated (IUU) fishing that is known to occur in the territorial waters of the exclusive economic zone of your country that may impact marine turtles. Does IUU fishing occur in your country?

YES

## 1.3 ADDRESSING HARVEST OF, AND TRADE IN, MARINE TURTLES

Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

### 1.3.1 Are marine turtles and/or their eggs harvest in your country? Please indicate which species are harvested.

YES

Details:

>>> Both Green and Hawksbill turtles are harvested illegally in Seychelles. The Wild Animals and Birds Protection Act 1961 (Turtle Regulations) completely banned all disturbances, harvest, sale, possession of turtles, turtle products or eggs.

References and links:

>>> <https://seylli.org/>

### 1.3.2 Which types of consumptive use of turtles are practiced in your country?

Use the text boxes below each rating to explain or clarify your responses.

## a) Meat consumption

YES

Details (e.g. species, estimated number taken per year, location, if known):

>>> Green and Hawksbill turtles

On inner islands such as Mahe, Praslin and La Digue. As well as outer islands like Cosmoledo.

#### **b) Egg consumption**

UNKNOWN

Details (e.g. species, estimated number taken per year, location, if known):

>>> Still exists, but by a minority of the population.

#### **c) Fat and oil consumption**

NO

Details (e.g. species, estimated number taken per year, location, if known):

>>> n/a

#### **d) Traditional medicine**

UNKNOWN

Details (e.g. species, estimated number taken per year, location, if known):

>>> According to tradition people diagnosed with tuberculosis were sent to outer islands where they drank turtles blood for cure. Unknown if this is still being practiced.

#### **e) Shell**

YES

Details (e.g. species, estimated number taken per year, location, if known):

>>> Hawksbill and green turtles. Number taken per year unknown

#### **f) Making of tortoise shell products (bekko)**

NO

Details (e.g. species, estimated number taken per year, location, if known):

>>> All trade has ceased. Illegal to possess any turtle products. No import of products allowed

#### **g) Other**

Details (e.g. species, estimated number taken per year, location, if known):

>>> n/a

#### **h) Which type(s) of consumptive use of marine turtles are the most common in your country?**

Please list the most common types of consumption:

>>> Meat consumption (Although it is illegal)

#### **1.3.3 Does your country have active legislation to prohibit direct harvest and domestic trade in marine turtles, their eggs, parts and products?**

YES

If yes, please provide details (title/date) of the relevant legislation, as well as any exemptions (e.g. for traditional use) under that legislation and comment on effectiveness of the legislation in terms of enforcement.

If more rows are required, please contact the secretariat at [iosea@un.org](mailto:iosea@un.org)

|  | <b>What are the challenges?</b>                  | <b>Is the legislation enforced?</b> | <b>Is traditional use allowed under this legislation?</b> | <b>Legislation date</b> | <b>Legislation title</b>                  |
|--|--|-------------------------------------|---|-------------------------|---|
|  | Enforcement and Monitoring, Outdated legislation | Yes                                 | No  | 1961                    | The Wild Animals and Birds Protection Act |
|  | Monitoring and Enforcement                       | Yes                                 | No  | 2014                    | The Fisheries Act                         |

|  | Monitoring and Enforcement | Yes | No | 2022 | The Nature Reserves and Conservancy Act |
|--|----------------------------|-----|----|------|---|
|  |                            |     |    |      |   |
|  |                            |     |    |      |   |
|  |                            |     |    |      |   |
|  |                            |     |    |      |   |
|  |                            |     |    |      |   |
|  |                            |     |    |      |   |
|  |                            |     |    |      |   |
|  |                            |     |    |      |   |
|  |                            |     |    |      |   |

**1.3.4 Please describe the LEGAL traditional harvest of marine turtles, their parts and products in your country by answering the questions below.**

NOTE: If there is no legal harvest of marine turtles in your country, please skip question 1.3.4 and 1.3.5.

**a) Please provide the regulation, which allows traditional harvest of marine turtles in your country.**

Details:

>>> n/a . No legal traditional harvest in country

References and links:

>>> n/a

Details:

>>> n/a

**c) Does your country have a harvest quote for traditional use of marine turtles?**

NO

Details:

>>> n/a

References and links:

>>> n/a

**e) Please list the specific locations where harvest is allowed.**

Note: please provide a reference to any reports or documents, which give the background for the management of turtle harvest in your country.

Details:

>>> n/a

References and links:

>>> n/a

**f) Where does traditional harvest occur, and which species are affected?**

Details:

>>> n/a

**g) How is the compliance with the existing regulations on traditional harvest monitored?**

Details:

>>> There is illegal traditional harvesting of sea turtles in the country.

The Seychelles Fishing Authority ( SFA) and the Department of Environment have an Existing MoU that fosters increased partnerships and coordination. The Legislations and regulations compliment each other and enforces each of the mandates.

The DoE works closely with the Seychelles Police, Seychelles Coastguard and other Enforcement Authorities to assist with monitoring, control and surveillance within the Seychelles EEZ.

Environmental Organizations managing protected areas assist with enforcement on key islands.

**1.3.5 List any management agreements between your country and other States in the IOSEA region to ensure that legal harvest of marine turtles has no negative effects on the population size. Please provide references and links to published documents.**

Details:

>>> None in existence as the country does not support legal harvest of marine turtles

References and links:

>>> n/a

**1.3.6 Please describe the ILLEGAL harvest of marine turtles and eggs in your country by answering the questions below.**

**a) Does illegal harvest of marine turtles occur in your country?**

YES

Details:

>>> Illegal harvest occurs throughout Seychelles.

A turtle is a protected animal throughout Seychelles

4. (1) No person shall disturb, catch, injure, fish for, kill, sell, relating to purchase, receive or possess any turtle.

(2) No person shall possess, disturb, sell, purchase, receive, take, remove or cause to be taken or removed any turtle egg either while it is being laid, or after it has been laid, by a female turtle.

5. (1) Subject to regulation 6, no person shall possess, sell, relating to expose for sale, purchase or receive any raw, worked or treated turtle shell, shell of a turtle.

(2) No person shall sell, expose for sale, purchase or receive any meat product derived from any shell of a turtle.

(3) No person shall possess, sell, expose for sale, purchase or receive any meat or any part of the flesh or calipee of a turtle.

References and links:

>>> Wild Animals and Birds Protection Act 1961, Wild Animals (Turtles) Protection Regulation 1994 Seychelles

**b) Please list the specific locations where illegal harvest is known to occur, if possible.**

Details (examples of areas where illegal harvest is known to occur):

>>> On the main islands of Mahe, Praslin and La Digue and some of the outer islands of Seychelles

**c) What is the impact of this illegal harvest on the populations of marine turtles? In case of illegal egg collection, what is the impact on marine turtle recruitment?**

Details:

>>> Illegal poaching occurs on nesting beaches as well as at sea. Marine populations recorded in our waters remain stable despite this.

**1.3.7 Which of the following adverse economic incentives are encouraging illegal take of marine turtles in your country?**

Ease of access to the turtle resource (e.g. proximity to nesting beaches, or ease of land/water access)

Lack of patrolling and enforcement at nesting beaches and nearshore areas

Low penalties against illegal take

**1.3.8 Has your country taken any measures to try to correct these adverse incentives?**

YES

If yes, please describe these measures in detail.

Details:

>>> Review of key legislations such as the Fisheries Act 2014 and the Wild Animals and Birds Protection Act 1961

Formulation of an enforcement task force- In the works but currently being implemented informally.

Purchasing of high-tech equipment to assist with Monitoring control and surveillance

Capacity building in legal and enforcement for authorized officers

Designation of Protected Areas

Education and awareness across the country being done by different organizations and authorities

Assessments done to identify areas most at risk from illegal activities etc

**1.3.9 Are there touristic activities linked in marine turtles in your country?**

YES

If yes, please indicate which type:

|                                    | No                       | Yes                                 |
|------------------------------------|--------------------------|-------------------------------------|
| Other (please describe)            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Swimming/ snorkeling activities | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Hatching releases               | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| a) Nesting turtle observation      | <input type="checkbox"/> | <input type="checkbox"/>            |

Details:

>>> A number of hotels market turtle activities as part of their programmes. Some of them partner with environmental organizations in order to ensure sustainable and turtle friendly practices.

Turtle observation guidelines are provided to tourists. The Department of Environment and the Marine Conservation Society have put up turtle guidelines on all key nesting beaches on Mahe. The Department will be putting these signs on Praslin and La Digue as well

**1.3.10 Are there any standard and government-certified protocols to ensure that touristic activities do not harm turtles and/or hatchlings?**

YES

Please briefly describe the type of protocols used, references or links, if available.

Details:

>>> Sea turtle guidelines- boards have been placed on all Key nesting beaches on Mahe island.

The Department of Environment actively responds to bad practices as a result of tourism activities for eg.

Cautioning tourists/ tourism establishments

Through EIA guidelines for eg it is not recommended to place buildings on the beach, dunes etc

**1.3.11 Does your country have mechanisms in place to identify domestic and international illegal trade routes (for illegally traded marine turtles, eggs and derivatives)?**

Please provide references to any published reports (e.g. already prepared for CITES purposes) that give a more ample explanation.

YES

Details:

>>> Seychelles is a very active party to CITES and CMS

The Department of Environment also receives trade information via SADC Twix

The Department works closely with the Seychelles Customs Authority

The Department works closely with other party to CITES

**1.3.12 Please describe any activities/projects that aim(ed) to reduce illegal take of and/or trade in marine turtles in your country.**

If more rows are required, please contact the secretariat at [iosea@un.org](mailto:iosea@un.org)

|  | Project website or other links with project description | Lessons learned | How does the project involve local communities? | End year (if completed) | Start year | Implemented by | Title of the project/activity |
|--|---|-----------------|---|-------------------------|------------|----------------|-------------------------------|
|  |   |                 |   |                         |            |                |                               |

|  |  |  |  |           |          |   |  |
|--|--|--|--|-----------|----------|---|--|
|  |  | Need to continuously train custom officers due to staff turnover. Customs officers would like more trainings targeting mainly enforcement and monitoring |  | long term | Annually | Ministry responsible for Environment                  | Green Customs training                       |
|  |  |  |  | 2023      | 2021     | WCO-INTERPOL  | Operation Thunder                            |
|  |  |  |  | long term | Annually | DoE, E-NGOs   | Sea turtle monitoring                        |
|  |  |  |  | long term | Annually | DoE, E-NGOs   | Educational Campaign                         |
|  |  |  |  | long term | Annually | DoE, Sey Coastguard, Sey Police, SFA, E-NGOs, IDC etc | Enforcement and Monitoring                   |
|  |  |  |  | ongoing   | 2022     | DoE   | Enforcement training for Authorised Officers |
|  |  |  |  |           |          |   |  |
|  |  |  |  |           |          |   |  |
|  |  |  |  |           |          |   |  |

**1.3.13 Has your country submitted the annual illegal trade report to CITES, including information relevant for marine turtles?**

Please provide a copy of this report or a link to the published report online, if possible.

NO

Details:

>>> n/a

References and links:

>>> n/a

**1.3.14 Are there any compliance and/or trade issues (either domestic or international) that your country would like to raise at the upcoming IOSEA MOS or otherwise through the IOSEA Secretariat?**

NO

**1.4. MINIMIZING MORTALITY THROUGH NESTING BEACH PROGRAMMES**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

**1.4.1 Tick the boxes that apply to indicate whether your country has any of the following measures in place to minimise the mortality of eggs, hatchlings and/or nesting females.**

Please indicate if these measures are being implemented at the IOSEA Network sites and index beaches that you described in question 0.2.

**Measures**

**a) Nesting beach monitoring (eggs and nesting females)**

YES

**b) Nesting beach protection (patrolling)**



YES

**c) Predator control**

YES

**d) Nest screening (placing wire screens over the buried nests)**

NO

**e) Vehicle access restrictions**

YES

**f) Regular removal of debris / clean-up programmes**

YES

**g) Has re-vegetation of dunes at nesting beaches been carried out, using native vegetation?**

YES

**h) Building location design regulations (coastal protection)**

YES

**i) Light pollution reduction (direct lights visible from the beach)**

YES

# **OBJECTIVE II: PROTECT, CONSERVE AND RESTORE MARINE TURTLE HABITATS**

## **2.1 MEASURES TO PROTECT AND CONSERVE MARINE TURTLE HABITATS**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

### **2.1.1 Please list Protected Areas (PAs), sanctuaries or temporary exclusion zones that were created to protect marine turtle habitat. Please provide the official name and date of establishment.**

Details:

>>> There are 23 MPAs in the Seychelles totaling an area of 444,097 km<sup>2</sup>. Ten MPAs were designated between 1966 – 2018 and an additional 13 marine protections designated between 2018-2020 during the Seychelles Marine Spatial Planning process

Aride Special Reserve

Aldabra Group

African Banks

Amirantes South (Marine) National Park

Baie Ternay Marine National Park

Bird Island (Ile aux Vaches) (Marine) National Park

Curieuse Marine National Park

Cousin Special Reserve

D'Arros Atoll (Marine) National Park

D'Arros to Poivre Atolls (Marine) National Park

Ile Coco, Ile La Fouche, Ilot Platte Marine National Park

Port Launay Marine National Park

Silhouette Marine National Park

Ste. Anne Marine National Park

Alphonse Group (Marine) Sustainable Use Area

Amirantes (Marine) to Fortune Bank (Marine) Sustainable Use Area

Cosmoledo and Astove Archipelago (Marine) Sustainable Use Area

Denis Island (Marine) Sustainable Use Area

Desroches Atoll (Marine) Sustainable Use Area

Farquhar Archipelago (Marine) Sustainable Use Area

Farquhar Atoll (Marine) Sustainable Use Area

Poivre Atoll (Marine) Sustainable Use Area

References and links:

>>> <https://seymsp.com/>

<https://macce.gov.sc/protected-area/>

### **2.1.2 Has your country developed any incentives to encourage protection of marine turtle habitat outside of protected areas?**

Details:

>>> The Department of Environment provides tokens to persons who report and successfully assist with apprehending poachers.

NGOs have volunteer programmes that aim to educate people on sea turtle conservation

Schools have eco programmes for e.g. sea turtle monitoring to increase the youths appreciation of these threatened species

Some communities have formed CBOs and get access to funding for projects targeting threatened species and their habitats

There are a lot of educational programmes and or media campaigns that raise awareness on protection of sea turtles and their habitats.

The Seychelles Broadcasting Corporation (SBC) airs a sea turtle spot free of charge every day in regards to laws protecting sea turtle in Seychelles

References and links:

>>> N/A

**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.**

YES

Details:

>>> The Ocean Project has been conducting monthly, educational, coastal clean-ups of beaches and/or waterways across the Seychelles islands since April 2017; engaging an average of 30-50 participants from community groups, non-governmental organisations, schools, and businesses during each clean-up; and collecting as much as 200kg of debris during 1 hour, which consists predominantly of single-use plastics such as plastic bottles, cups, straws, and bags.

TOP is implementing a 3-year marine litter monitoring programme, funded by the Western Indian Ocean Marine Science Association (WIOMSA), across the inner and outer islands of Seychelles. The programme forms part of a regional marine litter monitoring programme led by WIOMSA and being implemented in 6 other countries in the Western Indian Ocean region;

The MCCS and other ENGOs collect marine litter during their routine sea turtle monitoring

The DoE organizes quarterly beach cleanup on its key nesting beaches on Mahe

The Landscape and Waste Management Agency ( LWMA) has contractors who clean beaches on the islands, this includes some of the nesting beaches

References and links:

>>> [http://theoceanprojectseychelles.com/projects/bcm\\_seychelles](http://theoceanprojectseychelles.com/projects/bcm_seychelles) (instagram page)

**2.1.4 Are measures in place to prohibit the use of poisonous chemicals and explosives in the marine environment?**

YES

Use the text box to elaborate on your response.

Details:

>>> The Department of Environment is charged with developing where necessary standards for the quality of the environment in its various aspect and for emission and discharge of environmental pollutants from any source.

In addition, adopt procedures and safeguards for the prevention of accidents which may cause environmental pollution.

Ministry of Health administers the Safe use of chemicals

The Landscape and Waste Management Agency charged with Chemical and Waste Disposal

References and links:

>>> <https://macce.gov.sc/chemical/>

**2.2 RESTORATION OF DEGRADED MARINE TURTLE HABITATS**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

**2.2.1 What efforts are being made to recover degraded coral reef habitat? Give details (location, how long efforts have been carried out, effectiveness, lessons learned, future plans, etc).**

YES see below

Details/future plans:

>>> The Adaptation Fund is enabling :

- The enhancement of food security and reduction of risks from natural disasters through the restoration of degraded reefs in Mauritius and Seychelles;
- Knowledge management and sharing, training and sensitization to build regional capacity for sustainable reef restorations;
- The establishment of coral farming and nursery facilities

The overall objective is to reduce the impact of climate change on coral reef dependent economic sectors in Mauritius and Seychelles by implementing coral restoration with thermal tolerant corals. In Seychelles, coral

reef restoration

and nurseries will be implemented within the Curieuse Marine National Park, Cousin Special Reserve, Ste Anne Marine National Park MPAs and Anse Forbans. The cost of coral reef restoration varies according to method, objective and location, as does the cost effectiveness of the methods used

Coral reefs of Anse Royale bay, Silhouette Island and Curieuse Island in Seychelles have been identified as sites for the REEFFISH project aimed at increasing the resilience of fishing communities that rely on coral reefs for their livelihoods.

The regional project is being carried out in Seychelles, Comoros, Kenya, Madagascar, and Mauritius. With a total of \$4.4 million being distributed among the countries, the project is funded by the Japanese government and supported by the Food Agricultural Organization (FAO).

MCSS is implementing a large-scale coral reef restoration project in the Ste Anne MNP. The aim of this six-year project is to improve food security and livelihoods and mitigate disaster risk through the active restoration of coral reefs.

Fregate private island is implementing a coral restoration project together with Coralive . The research aims to compare different durations of electrification to allow the Mineral Accretion Technology to be even more sustainable. The motivation behind the study is to take coral restoration to a next level in size. Scalability is and will be key in the future, hence firsthand results in research and experience are of utmost importance.

References and links:

>>> <https://www.natureseychelles.org/what-we-do/coral-reef-restoration>

<http://www.seychellesnewsagency.com/articles/17145/Coralreef+restoration++sites+in+Seychelles+chosen+forREEFFISH+project>

<https://www.mcsscoralrestoration.com/>

<https://www.undp.org/sites/g/files/zskgke326/files/2023-08/CRRP%20Factsheet%202023.pdf>

### **2.2.2 Are efforts being made to recover degraded mangrove habitats that are important for turtles?**

YES see below

If yes, give details (location, duration, effectiveness, lessons learned, future plans etc.)

Details/future plans:

>>> The Ecosystem-based Adaptation through South-South Cooperation in Seychelles, Mauritania & Nepal 2013-2020. EbA South built the resilience of coastal communities by restoring mangroves, which prevent erosion and provide flood barriers. The project built 7 culverts and 2km channels between mangrove habitats to improve water flow and ecosystem health.

- These ecosystem-based approaches deliver benefits beyond climate resilience. For example, mangroves provide breeding grounds for fish species, boosting local fisheries. Sustainable financing plans were also developed for ecological restoration based on market assessments of ecosystem services (e.g. ecotourism). These assessments were used to produce cost-benefit analyses of adaptation interventions.

The Blue Carbon Lab led a field based blue carbon assessment for mangrove systems in the inner granitic islands and Aldabra/Cosmoledo Atolls of Seychelles to derive and analyse local-scale field data on above-ground biomass and soil organic carbon. Initiated by the Department of Environment with financing from Third South West Indian Ocean Fisheries Governance and Shared Growth Project (SWIOFish3) the results of this assessment will support the inclusion of mangrove ecosystems into Seychelles' NDCs for the United Nations Framework Convention on Climate Change (UNFCCC).

Seychelles is leading the Commonwealth Blue Charter action group on marine protected areas

Education and awareness campaigns on the importance of mangroves

Seychelles will move to 100 percent protection of all its mangroves and seagrass meadows

Guidelines and protocols for development that might impact these ecosystems eg EIAs

References and links:

>>> [https://wedocs.unep.org/bitstream/handle/20.500.11822/35203/EbAS\\_2013-20.pdf?sequence=3&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/35203/EbAS_2013-20.pdf?sequence=3&isAllowed=y)

<https://www.bluecarbonlab.org/seychelles-blue-carbon/>

### **2.2.3 What efforts are being made to recover degraded seagrass habitats? Give details (location, duration, effectiveness, lessons learned, future plans etc.).**

YES, see below

Details/future plans:

>>> The Pew Charitable Trusts supported research—the Seagrass Mapping and Carbon Assessment Project—led by the University of Oxford in partnership with two local nongovernmental organizations, Seychelles Conservation and Climate Adaptation Trust (SeyCCAT) and Island Conservation Society; the University of

Seychelles; the German Aerospace Agency; and others. Seychelles is first nation in the world to create a field-validated map for seagrass meadows across its waters and to estimate how much carbon those seagrasses store.

There are ongoing public awareness about the benefits of seagrass and the importance of conserving these vital ecosystems.

Research will be used to inform a blue carbon policy that will contribute toward sustainable blue carbon ecosystem management and provide continuous education and involvement of local stakeholders and the public.

It will also provide robust science to inform the development of the NDC and national policies for management of these critical habitats.

Seychelles will move to 100 percent protection of all its mangroves and seagrass meadows

Guidelines and protocols for development that might impact these ecosystems eg EIAs

#### References and links:

>>> [https://unfccc.int/sites/default/files/NDC/2022-06/Seychelles%20-%20NDC\\_Jul30th%202021%20\\_Final.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/Seychelles%20-%20NDC_Jul30th%202021%20_Final.pdf)

<https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2021/01/project-will-map-seagrass-in-seychelles-to-support-climate-action>

<https://www.pewtrusts.org/en/research-and-analysis/video/2022/seychelles-successful-campaign-to-protect-its-seagrass>

# 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

provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

### 3.1.1 Please list monitoring programmes that are currently in place or are being planned in your country.

Please enter details in the following table. If more rows are required, please contact the secretariat at [iosea@un.org](mailto:iosea@un.org)

|  | Is this a protected area?                         | Populati on trend     | Nature of monitoring    | Duration of the monitoring programme | Star t year | Species genetic stock | Site geographical name (refer to questions 0.1 and 0.2) |
|--|---|-----------------------|-------------------------|--------------------------------------|-------------|-----------------------|---|
|  | Yes   | Increasing            | Marine turtle programme | Annual                               | 1968        |                       | Aldabra Atoll   |
|  | Yes   | Increasing            | Marine turtle programme | Annual                               | 1981        |                       | Aride Island  |
|  | Yes   | Increasing            | Marine turtle programme | Annual                               | 1995        |                       | Bird Island   |
|  | Yes   | Increasing            | marine turtle programme | Annual                               | 1980        |                       | Curieuse Marine Park                                    |
|  | Yes   | Increasing to Stable? | marine turtle programme | Annual                               | 1973        |                       | Cousin Island   |
|  | Yes   | Increasing to Stable? | marine turtle programme | Annual                               | 1994        |                       | Cousine   |
|  | No  | stable                | marine turtle programme | Annual                               | 1999        |                       | Grand Soeur   |
|  | No  | decreasin g           | marine turtle programme | Annual                               | 1995        |                       | La Digue  |
|  | Working towards designation of 6 southern beaches | Declining             | marine turtle programme | Annual                               | 1995        |                       | Mahe  |
|  | No  | Declining             | marine turtle programme | Annual                               | 1995        |                       | Praslin   |
|  | Yes   | Stable                | marine turtle programme | Annual                               | 1981        |                       | St Anne Marine Park                                     |
|  | No  | Increasing            | marine turtle programme | Annual                               | 1998        |                       | North Island  |
|  | Yes   | Stable?               | marine turtle programme | Annual                               | 2000        |                       | Silhouette Island                                       |
|  | No  | Stable                | marine turtle programme | Annual                               | 1998        |                       | Fregate   |

|  |     |            |                         |        |      |  |                            |
|--|-----|------------|-------------------------|--------|------|--|----------------------------|
|  | Yes | stable     | marine turtle programme | Annual | 2009 |  | Desroches                  |
|  | Yes | Increasing | marine turtle programme | Annual | 2006 |  | Alphonse/St Francois Atoll |
|  | Yes | Increasing | marine turtle programme | Annual | 2014 |  | Farquhar Atoll             |
|  | Yes | Increasing | marine turtle programme | Annual | 2004 |  | Darros Island              |
|  | No  | Stable?    | marine turtle programme | Annual |      |  | Denis Island               |

### 3.1.2 Has your country undertaken an evaluation of its marine turtle monitoring programmes?

NO

Please indicate when the evaluation took place and describe lessons learned.

Details:

>>> n/a

References and links:

>>> Mortimer J. A, Luc M, Roseline C, Songwar E, Omath T. (2017). Project Number SOSF 256: Community Monitoring of Nesting Sea Turtles at D'Arros and St. Joseph. Part 1. Turtle Track Count Analysis for 13 Seasons (2004-05 to 2016-17). Unpublished annual report to Save Our Seas Foundation, May 2017. 36 pp.

Mortimer, J. A., Esteban, N., Guzman, A. N., and Hays, G. C. (2020). Estimates of marine turtle nesting populations in the south-west Indian Ocean indicate the importance of the Chagos Archipelago. *Oryx*, 54(3), 332-343

Burt, A. J., Dunn, N., Mason-Parker, C., Antha, S., and Mortimer, J. A. (2015). Curieuse National Park, Seychelles: critical management needs for protection of an important nesting habitat. *Marine Turtle Newsletter*, 147(11)

Mortimer, J.A. (2017). Community monitoring of nesting sea turtles at D'Arros and St Joseph, Seychelles. Part 1. Turtle track count analysis. Unpublished report to Save Our Seas Foundation. 36 pp.

Franc, C. 2018. Monitoring of hawksbill turtles on Sainte-Anne Island: results of the 2017-2018 nesting season. Unpublished report to Seychelles National Parks Authority, University of Seychelles, Montpellier SupAgro. 46 pp.

Gane, J., Downs, C. T., Olivier, I., and Brown, M. (2020). Nesting ecology and hatching success of the hawksbill turtle (2004–2014) on Cousine Island, Seychelles. *African Journal of Marine Science*, 42(1), 53-65

Mortimer, J. A. (2020). Final report: Alphonse Group Nesting Turtles. Unpublished report to. 34 pp.

Mortimer, J. A. (2020). Final report: Desroches Atoll Nesting Turtles. Unpublished report to GOS-UNDP-GEF Outer Islands Project. 24 pp

Pritchard, A, M et al ( 2022): Green turtle population recovery at Aldabra Atoll continues after 50 years of protection

Gake, J et al ( 2020): Effects of nest management methods on hatching success and predation rates of hawksbill turtles on Cousine Island, Seychelles

Mortimer, J.A., Appoo, J., Bautil, B., Betts, M., Burt, A.J., Chapman, R., Currie, J.C., Doak, N., Esteban, N., Liljevik, A., Mahoune, J.T., Onezia, C., Pistorius, P., Richards, H., Samedi, U., Sanchez, C.L., Seabrook, W., Underwood, A., van de Crommenacker, J., von Brandis, R., Hays, G., (2023). Long-term changes in adult size of green turtles at Aldabra Atoll across 35 years and implications for clutch size, sexual dimorphism and growth rates. *Marine Biology*.

### 3.1.3 Which of the following methods have been or are being used to identify migration routes of turtles?

Use the text boxes to provide details

#### a) Tagging (flipper)

YES

Details (e.g., list species, duration of programme, start and end year):

>>> Major programmes to tag nesting females throughout the country (Mortimer and Bresson 1999; Mortimer

and Balazs 2000; Mortimer et al. 2003; Mortimer et al. 2006). Nesting hawksbills have been tagged at Cousin Island since 1973, and elsewhere since 1981. Nesting green turtles have been tagged intensively at Aldabra since 1981, and on a smaller scale elsewhere in the country. Tagging of juvenile green turtles and hawksbills has been taking place at Aldabra since 1986, and at other sites since 1995.

## **b) Satellite tracking**

Yes

Details (e.g. species, genetic stock):

>>> Hawksbills (post-nesting) tracked from Inner Islands and from Amirantes Group. Post-nesting migrations of hawksbill turtles in the granitic Seychelles and implications for conservation.  
Green turtles (post-nesting) tracked from Aldabra.  
Green turtles (post-nesting) tracked from Alphonse Island.  
Green turtles tracked from Chagos Island to Seychelles.  
Hawksbills (post-nesting) tracked from Inner Islands and from Amirantes Group. Post-nesting migrations of hawksbill turtles in the granitic Seychelles and implications for conservation.

References and links:

>>> Mortimer JA, Balazs GH. 2000.  
Hays GC, Mortimer JA, Ierodiaconou D, Esteban N. 2014. The World's largest marine protected area, Stokes HJ, Mortimer JA, Laloe J-O, Hays GC, Esteban N. 2023. Synergistic use of UAV surveys, satellite tracking data, and mark-recapture to estimate abundance of elusive species. *Ecosphere*. 2023; 14:e4444. <https://doi.org/10.1002/ecs2.4444>  
Hays GC, Mortimer JA, Rattray A, Shimada T, Esteban N. 2021. High accuracy tracking reveals how small conservation areas can protect marine megafauna. *Ecological Applications* 31(7): e02418. <http://doi.org/10.1002/eap.2418>

## **c) Genetic studies**

YES

Details (e.g. species, genetic stock):

>>> Two major studies ongoing:  
a) Regional genetics on Green turtles. Samples collected from throughout the region including Seychelles for analysis by Dr Michael Jensen at university in Denmark.  
B) Regional genetics of Hawksbill turtles. Samples collected from throughout the region including Seychelles. This is under TiMOI project led by Dr Katia Ballorain in La Reunion. Both studies are still in the analysis phase.

References and links:

>>> Vargas, S.M., Jensen, M.P., Ho, S.Y., Mobaraki, A., Broderick, D., Mortimer, J.A., Whiting, S.D., Miller, J., Prince, R.I., Bell, I.P. and Hoenner, X., (2015). Phylogeography, genetic diversity, and management units of hawksbill turtles in the Indo-Pacific. *Journal of Heredity*, 107(3), 199-213

## **d) Other (list and provide details)**

Details (e.g. species, genetic stock):

>>> n/a

References and links:

>>> n/a

## **e) None of the above**

Explain briefly:

>>> n/a

### **3.1.4 Have the studies mentioned in 3.1.3 helped to identify foraging and migration areas of**



## **marine turtles in your country?**

YES

References and links:

>>> Mortimer J. A, Luc M, Roseline C, Songwar E, Omath T. (2017). Project Number SOSF 256: Community Monitoring of Nesting Sea Turtles at D'Arros and St. Joseph. Part 1. Turtle Track Count Analysis for 13 Seasons (2004-05 to 2016-17). Unpublished annual report to Save Our Seas Foundation, May 2017. 36 pp.

### **3.1.5 Is the use of traditional ecological knowledge in research being promoted?**

UNSURE

### **3.1.6 Give a list of relevant literature that includes information from studies carried out in your country on marine turtle populations and their habitats, sorting them by topic.**

#### **a) Bycatch mitigation measures**

Details (e.g. numbers and species of released turtles, type of fishery and gear used, method for monitoring survival, result):

>>> None

References and links:

>>> N/A

#### **b) Effect of bycatch mitigation measures on non-target species**

Details (e.g. type of fishery and gear used, mitigation method assessed, result):

>>> None

References and links:

>>> N/A

#### **c) Frequency and pathology of disease in marine turtles**

Details (disease, incidence, species and genetic stock):

>>> None

References and links:

>>> N/A

#### **d) Genetic studies**

Details (species and genetic stock):

>>> Two major studies ongoing:

a) Regional genetics on Green turtles. Samples collected from throughout the region including Seychelles for analysis by Dr Michael Jensen at university in Denmark.

B) Regional genetics of Hawksbill turtles. Samples collected from throughout the region including Seychelles. This is under TIMOI project led by Dr Katia Ballorain in La Reunion. Both studies are still in the analysis phase.

#### **e) Socio-economic studies within communities that interact with marine turtles and their habitats**

Details (aim of study, methods, results):

>>> None

References and links:

>>> N/a

#### **f) Evaluation of the efficacy of conservation activities for marine turtles and their habitats**

Details (types of activities assessed, participation of local communities in the evaluation, methods, results):

>>> None

References and links:

>>> N/A

### **g) Other**

Details (aim of study, results):

>>> n/a

References and links:

>>> n/a

## **3.2 COLLABORATIVE RESEARCH AND MONITORING**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

### **3.2.1 Does your country participate in any regional or sub-regional action plans that identify regional priorities in terms of research and monitoring needs?**

NO

### **3.2.2 On which of the following themes have regional 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.**

#### **a) Reproductive biology (including any of the following: nesting data, hatchling survival, nest protection, recruitment, etc.)**

YES

#### **b) Genetic characterization**

YES

Details (year when collaboration took place, project name, future plans):

>>> a) Regional genetics on Green turtles. Samples collected from throughout the region including Seychelles for analysis by Dr Michael Jensen at university in Denmark.

B) Regional genetics of Hawksbill turtles. Samples collected from throughout the region including Seychelles. This is under TIMOI project led by Dr Katia Ballorain in La Reunion. Both studies are still in the analysis phase.

#### **c) Migratory and dispersal routes**

YES

Details (year when collaboration took place, project name, future plans):

>>> Lots of collaborative work regarding migration and dispersal routes involving Seychelles:

a) TIMOI Satellite tracking (see literature reference below);

b) Bertarelli Project (collaboration Dr Graeme Hays, Dr Nicole Esteban, Dr Jeanne A Mortimer) involving both green turtles and hawksbills. Recent satellite tracking of 10 post-nesting females from Fregate Island (Nov/Dec 2023) data are still being collected.

#### **d) Other biological and ecological aspects**

YES

References and links:

>>> Sanchez CL, Bunbury N, Mortimer JA, A'Bear L, Betts M, von Brandis R, Burt AJ, Cooke L, van de Crommenacker J, Currie JC, Doak N, Fleischer-Dogley F, Mederic E, Mels B, Pistorius P, Richards H, Casale P. 2023. Growth rate and projected age at sexual maturity for immature hawksbill turtles and green turtles foraging in the remote marine protected area of Aldabra Atoll, Seychelles. Mar Biol 170:49. <https://doi.org/10.1007/s00227-023-04197-1>

Mortimer JA, Appoo J, Bautil B, Betts M, Burt A, Chapman R, Currie JC, Doak N, Esteban N, Liljevik A, Mahoune JT, Onezia C, Pistorius P, Richards H, Samedi U, Sanchez CL, Seabrook W, Underwood A, van de Crommenacker J, von Brandis R, Hays GC. 2022. Long-term changes in adult size of green turtles at Aldabra Atoll and implications for clutch size, sexual dimorphism and growth rates. *Marine Biology*. <https://doi.org/10.1007/s00227-022-04111-1>

van de Crommenacker J, Mortimer JA, Whiting A, Macrae I, Flores T, Whiting S. 2022. Linkage between Cocos (Keeling) Developmental Habitat and Hawksbill Nesting Beaches of Seychelles. *Marine Turtle Newsletter* 165:25-27. <http://www.seaturtle.org/mtn/PDF/MTN165.pdf>

Pritchard AM, Sanchez CL, Bunbury N, Burt AJ, Currie JC, Doak N, Fleischer-Dogley F, Metcalfe K, Mortimer JA, Richards H, van de Crommenacker J, Godley BJ. 2022. Green turtle population recovery at Aldabra Atoll continues after 50 yr of protection. *Endangered Species Research* 47:205-215. <https://doi.org/10.3354/esr01174>

Stokes HJ, Mortimer JA, Hays GC, Unsworth RKF, Laloe J-O, Esteban N. 2019. Green turtle diet is dominated by seagrass in the Western Indian Ocean except amongst gravid females. *Marine Biology* 166:135. <https://doi.org/10.1007/s00227-019-3584-3>

### 3.3 DATA ANALYSIS AND APPLIED RESEARCH

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

#### 3.3.1 Describe how research results are being applied to improve management practices and mitigation of threats.

Details:

>>> Movement patterns of turtles enable better understanding of threats they may face at different stages of their life. Recaptures of tagged turtles over many years have shown that both species have high site fidelity. Research results feed into relevant legislations/regulations - The existing turtle regulations under the WABPA is currently being reviewed under the Wildlife Protection Bill

Identification of priorities for the expansion of the marine protected area system of the Seychelles

Better waste management on key nesting beaches

References and links:

>>>

<http://www.seychellesnewsagency.com/articles/8441/Two+decades+of+sea+turtle+data+in+Seychelles+helps+researchers+understand+threats>

Wildlife Protection Bill (unpublished at the moment)

The Nature Conservancy. 2022. Evaluation of Ecosystem Goods and Services for Seychelles' Existing and Proposed Protected Area System'. An unpublished report to Government of Seychelles - MACCE and SWIOFish3 programme

<https://www.ox.ac.uk/news/2023-01-19-new-study-shows-most-plastic-debris-seychelles-beaches-comes-far-sources>

You have attached the following documents to this answer.

[GoS-UNDP-GEF\\_PA\\_Project\\_SEY-SCP\\_Field\\_Report\\_FINAL.pdf](#)

#### 3.3.2 Is traditional knowledge on marine turtles and their habitats being used for conservation and management?

YES

Details, future plans:

>>> N/A

References and links:

>>> N/A

### 3.4 INFORMATION EXCHANGE

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

#### 3.4.1 Has your country undertaken any initiatives (nationally or through collaboration with other IOSEA Signatory States) to standardise methods of data collection?

YES

### **3.4.2 Has your country taken part in producing IUCN regional status reports for red list assessments?**

YES

Details (year when more recent collaboration took place, project name, links):

>>> Assessment of the Conservation Status of the Hawksbill Turtle in the Indian Ocean and South-East Asia Region has been published.

### **3.4.3 How often does your country share information on marine turtle populations of regional interest with other IOSEA Signatories?**

more frequently than once a year

References and links:

>>> Hays GC, Laloë J-O, Mortimer JA, Rattray A, Tromp JJ, Esteban N. 2024. Remote submerged banks and mesophotic ecosystems can provide key habitat for endangered marine megafauna. *Science Advances* 10(8). Doi:10.1126/sciadv.adl2838

Nivière M, Dalleau M, Bourjea J, Jean C, Ciccione S, Mortimer JA, Didon V, Rowat D, Rocamora G, Ranaivoson R, Mahafina J, Randriamiharisoa LO, Barichasse E, Bousquet O, Barat A, Laforge A, Ballorain K. in press. Intra-species variability in migratory movement of hawksbill turtles in Southwest Indian Ocean. *Endangered Species Research*

Wallace BP, Posnik ZA, Hurley BJ, DiMatteo AD, Bandimere A, Rodriguez I, Maxwell SM, Meyer L, Brenner H, Jensen MP, LaCasella E, Shamblin BM, Abreu-Grobois FA, Stewart KR, Dutton PH, Barrios-Garrido H, Dalleau M, Dell'amico F, Eckert KL, FitzSimmons NN, Garcia-Cruz M, Hays GC, Kelez S, Lagueux CJ, Madden Hof CA, Marco A, Martins SLT, Mobaraki A, Mortimer JA, Nel R, Phillott A, Pilcher NJ, Putman NF, Rees AF, Riguez-Baron JM, Seminoff JA, Swaminathan A, Turkozan O, Vargas SM, Vernet PD, Vilaça S, Whiting SD, Hutchinson BJ, Casale P, Mast RB. 2023. Marine turtle regional management units 2.0: an updated framework for conservation and research of wide-ranging megafauna species. *Endangered Species Research* 52: 209-223. <https://doi.org/10.3354/esr01243>

Stokes HJ, Mortimer JA, Laloë J-O, Hays GC, Esteban N. 2023. Synergistic use of UAV surveys, satellite tracking data, and mark-recapture to estimate abundance of elusive species. *Ecosphere*. 2023; 14:e4444. <https://doi.org/10.1002/ecs2.4444>

van de Geer CH, Bourjea J, Broderick AC, Dalleau M, Fernandes RS, Harris LR, Inteca GE, Kiponda FK, Louro CMM, Mortimer JA, Msangameno D, Mwasi LD, Nel R, Okemwa GM, Olendo M, Pereira MAM, Rees AF, Silva I, Singh S, West L, Williams JL, Godley BJ. 2022. Marine turtles of the African east coast: current knowledge and priorities for conservation and research. *Endangered Species Research* 47:297-331. <https://doi.org/10.3354/esr01180>

Hays GC, Atchison-Balmond N, Cerritelli G, Laloë J-O, Luschi P, Mortimer JA, Rattray A, Esteban N. 2022. Travel routes to remote ocean targets reveal the map sense resolution for a marine migrant. *Journal Royal Society Interface* 19: 20210859. <https://doi.org/10.1098/rsif.2021.0859>

Hays GC, Mortimer JA, Rattray A, Shimada T, Esteban N. 2021. High accuracy tracking reveals how small conservation areas can protect marine megafauna. *Ecological Applications* 31(7): e02418. <http://doi.org/10.1002/eap.2418>

Esteban N, Mortimer JA, Stokes HJ, Laloë J-O, Unsworth RKF, Hays GC. (2020) A global review of green turtle diet: sea surface temperature as a potential driver of omnivory levels. *Marine Biology* doi.org/10.1007/s00227-020-03786-8. <http://dx.doi.org/10.1098/rspb.2016.2581>

Mortimer JA, Esteban N, Guzman AN, Hays GC. 2020. Estimates of marine turtle nesting populations in the south-west Indian Ocean indicate the importance of the Chagos Archipelago. *Oryx* 54(3):332-343. <https://doi.org/10.1017/S0030605319001108>.

Supplementary material at [doi.org/10.1017/S0030605319001108](https://doi.org/10.1017/S0030605319001108)

Jensen MP, Dalleau M, Gaspar P, Lalire M, Jean C, Ciccione S, Mortimer JA, Quillard M, Taquet C, Wamukota A, Leroux G, Bourjea J. 2020. Seascape genetics and the spatial ecology of juvenile green turtles. *Genes* 11(3): 278. <https://doi.org/10.3390/genes11030278>

### **3.4.4 Since 2019, has your country taken part in any workshops or other events with participation of other countries, scientific institutions, non-governmental or international organisations in order to develop and implement best practice approaches for marine turtle conservation?**

YES

Details (name of the event, year, main objective of the event):

>>> Preparations for the 8th Meeting of Signatory States of the IOSEA Marine Turtle MOU, Da Nang, Viet Nam, 21-25 October 2019  
Assessment of the Conservation Status of the Hawksbill Turtle in the Indian Ocean and South-East Asia Region 2021  
Seychelles chairs the Western Indian Ocean Marine Turtle Task Force. The meeting 10th meeting was held in October 2022.

# **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**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

### **4.1.1 Are education/awareness programmes in place at/near nesting beaches?**

YES

Please indicate at which sites, described in question 0.2 these programmes are being implemented.

Details:

>>> Aride Island,  
Cousin Island  
Cousine Island  
Sainte Anne MP  
Curieuse Island  
Bird Island :  
Denis Island :  
North Island :  
Silhouette Island :  
Mahé Island

### **4.1.2 Describe the educational materials, including mass media information programmes that your country has collected, developed and/or disseminated.**

Details/future plans:

>>> Information boards  
TV spots  
Social media posts  
Reports  
Newspaper articles  
Interviews

References and links:

>>>  
<http://www.seychellesnewsagency.com/articles/13049/Sea+turtle+population+stable+in+Seychelles+despite+ongoing+poaching+incidents>  
<https://www.nation.sc/articles/10327/sea-turtle-nesting-season-and-sponsorship->  
<https://www.unesco.org/en/articles/green-sea-turtles-return-seychelles>  
<https://saveourseas.com/project/turtle-action-group-seychelles/>  
<https://natureseychelles.org/what-we-do/wildlife-conservation/marine-turtle-programme>  
<https://www.sbc.sc/news/protected-green-turtles-thriving-well-on-seychelles-aldabra-atoll-15000-per-year-surviving-says-endangered-species-research-journal/>  
<https://www.islandconservationseychelles.com/news/10th-annual-seychelles-sea-turtle-festival-hosted-at-silhouette-island>  
<https://education.natureseychelles.org/posters/>

### **4.1.3 Which of the following groups have been the targets of focused education or awareness programmes?**

- Policy makers
- Fishing industry
- Communities that interact with marine turtles and their habitats
- Local/Fishing communities
- Tourists
- Media
- Teachers
- Students
- Military, Navy, Police
- Scientists
- NGOs

Enforcement personnel

Details, if necessary:

>>> The programmes have involved a range of stakeholders.

#### **4.14 Have any community learning centres or information centres been established in your country?**

YES

Details/future plans:

>>> The Department of Environment has a documentation/information Centre  
The National library recently reopened its doors  
Seychelles opens two maritime information sharing centres- NISCC and RCOC  
Nature Seychelles and the Ministry of Education have recently partner to foster new generation of conservationists. Anse Boileau Secondary School is the proud recipient of an environmental activity centre for its Locally Empowered Area Protection (LEAP) Junior Club.

References and links:

>>> <https://www.crimario.eu/seychelles-opens-two-maritime-information-sharing-centres/>

## **4.2 STAKEHOLDER PARTICIPATION**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

### **4.2.1 Are there public participation programmes in place at nesting beaches to involve local stakeholders in activities to conserve marine turtles?**

YES

If yes, which stakeholders are being involved?

- Fishing industry
- Communities that interact with marine turtles and their habitats
- Local/Fishing communities
- Tourists
- Media
- Teachers
- Students
- Military, Navy, Police
- Scientists
- NGOs
- Enforcement personnel

Please indicate at which sites, described in question 0.2 these programmes are being implemented.

Details/future plans:

>>> All the nesting beaches on the inner islands and to some extent outer islands

### **4.2.2. The role of local communities. Please answer the questions below, giving examples of activities that took place since 2019.**

a) Is traditional knowledge used in the development of education and awareness programmes in your country?

YES

b) Do local communities participate in the development and implementation of conservation measures?

Details, examples:

>>> Yes. Community participation is a very common practice in the country. For example in activities such as beach clean ups, tree planting  
Community involvement in public meetings very important and common as well as community voices are critical during project development which might impact nesting beaches/turtles and their habitats etc.

Protecting nesting beaches by establishing parks through regulations combined with public education initiatives.

Participation in sea turtle monitoring volunteer programme

References and links:

>>> <https://theoceanprojectseychelles.com/clean-ups>

<https://trasseychelles.sc/>

**4.2.3 Describe initiatives undertaken or planned since 2019 to involve and encourage the cooperation of Government institutions, NGOs and the private sector in marine turtle conservation programmes.**

Details/future plans:

>>> Signing of MoUs

Adoption of key nesting beaches by private companies eg Absa

Funding of community projects by private companies eg Seybrew

References and links:

>>> <https://www.nation.sc/articles/18851/absa-seychelles-adopts-and-rehabilitates-petit-barbarons-wetland->

<http://www.seychellesnewsagency.com/articles/17220/Seychelles+Breweries+creates+foundation+to+fund+community+projects>



# **OBJECTIVE V: ENHANCE NATIONAL, REGIONAL, AND INTERNATIONAL COOPERATION**

## **5.1 COOPERATION NEEDS**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

### **5.1.1 Please indicate, the extent to which the following local management issues require regional and/or international cooperation in order to achieve progress.**

In other words, how important is **regional/international** cooperation for addressing the issues listed below?

#### **a) Illegal fishing in territorial waters**

ESSENTIAL

#### **b) Incidental capture by foreign fleets in territorial waters**

ESSENTIAL

#### **c) Enforcement/patrolling of territorial waters**

ESSENTIAL

#### **d) Illegal fishing in EEZ**

ESSENTIAL

#### **e) Incidental capture by foreign fleets in EEZ**

ESSENTIAL

#### **f) Enforcement/patrolling of EEZ**

ESSENTIAL

#### **g) Harvest exploitation of turtles and eggs**

IMPORTANT

#### **h) Illegal trade in turtle parts and products**

IMPORTANT

#### **i) Development of gear technology to reduce bycatch of marine turtles**

IMPORTANT

#### **j) Marine pollution, including oil spills and marine debris**

ESSENTIAL

#### **k) Training / capacity-building**

IMPORTANT

#### **l) Alternative livelihood development**

IMPORTANT

#### **m) Characterisation of turtle populations/genetic stocks**

ESSENTIAL

#### **n) Identification of migration routes**

ESSENTIAL

#### **o) Tagging / satellite tracking**

IMPORTANT

**p) Habitat studies**

IMPORTANT

**q) Genetic studies**

IMPORTANT

Other:

>>> N/A

**5.2 COOPERATION AND INFORMATION EXCHANGE**

**5.2.1 Regional cooperation to enhance marine turtle conservation and management**

a) Which regional/bilateral agreements for marine turtle conservation and management does your country participate in?

Details:

>>> The Republic of Seychelles became the 12th Member State to sign the Charter for the SADC Fisheries Monitoring, Control and Surveillance Coordination Centre (MCSCC) which has been established in Maputo, Mozambique

The country actively contributes towards the implementation of the Scientific Committee Recommendations and Resolutions of the IOTC. For e.g. data collected from observer programmes on tuna purse seiners are currently being analyzed. A new logbook catering for the reporting of interaction has been introduced for the longline fleet.

References and links:

>>> <https://sadcmscc.org/news/1517/>  
<https://www.sfa.sc/index.php/e-library/seychelles-iotc-reports/seychelles-iotc-reports>

b) Please list the organizations that your country cooperates with to enhance regional collaboration on marine turtle conservation in your subregion.

Details:

>>> SADC  
TRAFFIC  
IOTC

References and links:

>>> N/A

**c) Do these agreements and organizations have an associated action plan for the conservation of marine turtles and their habitats? Please list the respective actions plans.**

If more rows are required, please contact the secretariat at [iosea@un.org](mailto:iosea@un.org)

|  | Threats addressed by the plan  | Objectives  | Geographic coverage | Species covered | Name of the regional/sub-regional action plan (include web links to plan if available) |
|--|--------------------------------|---|---------------------|-----------------|--|
|  | Unsustainable fishing, IUU     | Data collected from observer programme on tuna purse seiners are currently being analysed. A new logbook catering for the reporting of interaction has been introduced for the longline fleet                                       | EEZ/Beyond EEZ      | All species     | IOTC   |
|  | Illegal wildlife trade issues. | We work on key interventions within five priority areas to reduce illegal and unsustainable trade of wild species and increase the social, economic, and environmental benefits to people derived from legal and sustainable trade. | EEZ/Beyond EEZ      | All species     | TRAFFIC  |
|  | Issues related to TFCAs        | Implementation of SADC Protocol on Wildlife Conservation and Law Enforcement (1999)   | Beyond EEZ          | All species     | SADC   |
|  |                                |   |                     |                 |  |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**5.2.2 Has your country encouraged Regional Fishery Management Organizations (RFMOs) in the Indian Ocean to adopt marine turtle conservation measures within Exclusive Economic Zones (EEZs) and on the high seas? Please describe the interventions made by your country in this regard in the last 5 years, referring to specific RFMOs.**

Details/future plans:

>>> No

References and links:

>>> n/a

**5.2.3 Please describe any additional efforts of your country to enhance sub-regional turtle conservation.**

Details/future plans:

>>> Coordination with other stakeholders

Working on joint assessments

The Seychelles Fishing Authority submits regular reports of progress of implementation of the FAO Guideline to Reduce Sea Turtle Mortality in Fishing Operation and on the implementation of resolution 12/04 on marine turtles

(Paragraph 5)

References and links:

>>> RESOLUTION 12/04 - ON MARINE TURTLES

SFA (2023): Reporting of progress of implementation of the FAO Guideline to Reduce Sea Turtle Mortality in Fishing Operation and on the implementation of resolution 12/04 on marine turtles

**5.3 CAPACITY-BUILDING**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

**5.3.1 Describe your country's needs in terms of human resources, knowledge and facilities, in order to build capacity to strengthen marine turtle conservation measures in the IOSEA region.**

Details:

>>> Develop partnerships with universities, research institutions, training bodies and other relevant organizations.

Access to more funding/funding for scientific research

Trainings for wildlife vets and others who are involved in sea turtle care, rehabilitation etc.

More resources for monitoring, control and surveillance needed

Financial resources for project development and implementation

Exchange with other countries/parties

Technology transfer

Knowledge transfer

References and links:

>>> None

**5.3.2 Describe any training your country provided in marine turtle conservation and management in the last 5 years (e.g., workshops held, training manuals produced etc.), and indicate your plans for the coming year.**

Details/future plans:

>>> Tagging training provided to staff of the Department of Environment

No workshops specific to sea turtles but targeting the preservation of the environment and biodiversity.

References and links:

>>> n/a

**5.3.3 Specifically in relation to capacity-building for the conservation of marine turtles and their habitats, describe any partnerships with universities, research institutions, training bodies and other relevant organisations, national, regional, and/or international.**

Details/future plans:

>>> University of Seychelles

IOTC

Seychelles Fishing Authority

Seychelles Parks and Gardens Authority

Protect Paradise Seychelles

E-NGOs- Nature Seychelles, Seychelles Islands Foundation, Save our Seas Foundation, Wise Oceans, GVI,

Marine Conservation Society Seychelles, Turtle Action Group Seychelles

**5.4 STRATEGY AND LEGISLATION**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

**5.4.1 Development of a national action plan**

**a) Is there a national action plan for the conservation of marine turtles and their habitats in your country?**

YES

Details:

title of the document, year, link:

>>> Memorandum of Understanding on Cooperation to Promote Turtle Conservation in

Seychelles and on the Sharing of Information .

Strategy for Turtle Action Group of Seychelles (TAGS)

**b) If there is no action plan yet, has a set of key management measures been identified that could eventually serve as a basis for a more specific action plan at a national or local level?**

YES

Details:

Title of the documents, year, link:

>>> Memorandum of Understanding on Cooperation to Promote Turtle Conservation in

Seychelles and on the Sharing of Information .

Strategy for Turtle Action Group of Seychelles (TAGS)

**c) List the genetic stocks (marine turtle populations) identified as priorities in the national action plan or in other action plans for conservation of biodiversity in your country.**

Details/future plans:

>>> All are identified as priorities

**5.4.2 Which are the main threats to marine turtles in your country per species and the most urgent management activities to address them?**

Please list up to 5 corresponding activities from the IOSEA Conservation and Management Plan (CMP).

>>> 1. Pollution

Various projects are being implemented to target and address issues of marine debris, for example by the Ocean Project team.

Under the Environment Protection regulation 2017, there is a restriction on manufacturing, importation, and distribution of plastic bags and plastic straws.

2. Climate change

The country is implementing its Coastal Management Plan which will aim to reduce pressures on coasts and mitigate future impacts of climate change.

Coastal planting being conducted on key nesting beaches that are being heavily affected by coastal erosion.

3. Illegal poaching/fishing

The Ministry of Environment has a greenline whereby any issues pertaining to poaching, pollution or any other

crimes or issues can be reported and addressed by relevant sections within the Ministry.  
At sea MCS being done by the Seychelles Coastguard, Seychelles Marine Police while the Department of Environment and its partners monitor/patrol the key nesting beaches  
Coastal development, which can destroy or disturb their nesting and feeding areas.

**5.4.3 Has your country conducted a review of policies and laws to address any inconsistencies in relation to the conservation of marine turtles and their habitats?**

YES

Details, future plans:

>>> Revision of the Wild Animals and Birds Protection Act 1961 completed - The Wildlife Protection Bill will be submitted to the Attorney General's Office during the coming months  
The Coral Policy and Strategic Action Plan 2022 is in force.  
The Department is also working on a National Biodiversity Policy ( Draft available)  
The Seychelles Fishing Authority have also reviewed their Fisheries Act 2014 and Fisheries Regulations

References and links:

>>> <https://www.gazette.sc/sites/default/files/2023-11/Bill%2023%202023%20-%20Fisheries%20and%20Aquaculture%20Bill%202023.pdf>

You have attached the following documents to this answer.

[Coral Policy Web- final.pdf](#)

**5.4.4 Which of the threats to marine turtles are not currently addressed by any policy or law in your country?**

Details:

>>> Habitat Protection especially outside Protected Areas

**5.4.5 Does your country have legislation that explicitly requires marine and coastal development projects and natural resource extraction projects to be accompanied by an Environmental Impact Assessment (EIA) in relation to marine turtles and their habitats?**

YES

a) If yes, please provide references to legal texts, date of adoption and briefly describe such legislation.

Details:

>>> See EPA attached

You have attached the following documents to this answer.

[Environment Protection Act 2016.pdf](#)

References and links:

>>> See EPA attached

b) Which measures are in place to ensure compliance with this regulation?

References and links:

>>> Weekly monitoring of development projects  
Fines against non-compliance  
Scoping reports include mitigation strategies

## **OBJECTIVE VI: PROMOTE IMPLEMENTATION OF THE MOU, INCLUDING THE CMP**

### **6.1 IOSEA MARINE TURTLE MOU MEMBERSHIP AND ACTIVITIES**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

#### **6.1.1 What has your country already done in the past 5 years to encourage other States to sign the IOSEA MOU?**

Details/future plans:

>>> Not directly the IOSEA per say but we do promote sea turtle conservation and management through other forums such as CBD, CITES, IUCN, Commonwealth Blue Charter ( MPA Action Group champion)etc.

#### **6.1.2 Is your country currently favourable, in principle, to amending the MOU to make it a legally binding instrument?**

NO

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

>>> No further comments

### **6.2 RESOURCES TO SUPPORT IMPLEMENTATION OF THE MOU**

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

#### **6.2.1 What programmes has your country funded for domestic implementation of marine turtle conservation activities related to the IOSEA Marine Turtle MOU?**

Please refer to the IOSEA CMP and IOSEA Work Programme.

Name of the funded programme, corresponding CMP activity or IOSEA Work Programme measure:

>>> Heritage sites in Seychelles (including Aldabra and Vallee de Mai). Fees paid to visit these sites are used to fund conservation projects on Aldabra.

Seychelles Conservation and Climate Adaptation Trust (SeyCCAT) strategically invests in ocean stakeholders to generate new learning, bold action and sustainable blue prosperity in Seychelles.

Government budget for the Ministry responsible for Environment support conservation activities including purchasing of key equipment for sea turtle monitoring, educational campaigns and capacity building.

Information boards were also designed and placed on key nesting beaches on Mahe Island to raise awareness to both tourists and locals on turtle friendly codes of conduct during encounter.

Marine litter monitoring being done by a number of organizations including SIF, ICS, The Ocean Project etc.

Turtle monitoring programs being conducted by the Department of Environment as well as other ENGOs such as SIF, Nature Seychelles, ICS, MCSS, SOSF, SPGA and so on

The country has in place a Turtle Action Group comprising of key stakeholders involved in sea turtle conservation.

The Department of Environment have reviewed or reviewing key pieces of legislations pertaining directly or indirectly to sea turtle eg the Trade of wild flora and fauna Act 2021 (regulations ongoing), the review of the Wild Animals and Birds Protection Act 1961 ( completed) and the new Wildlife Protection Bill 2024 is going to the Attorney Generals Office this month, the Nature Reserves and Conservancy At 2022 ( regulations ongoing). The Department has also worked on a draft National Biodiversity Policy.

References and links:

>>> <https://www.nation.sc/articles/1773/ics-organised-beach-clean-up-on-desroches>

<http://theoceanprojectseychelles.com/projects>

<https://www.sbc.sc/news/10-tonnes-of-waste-mostly-from-other-countries-collected-in-massive-beach-clean-up-in-seychelles/>

<https://seylii.org/>

<https://www.mcsc.sc/turtles.html>

<https://www.spga.gov.sc/>

<http://natureseychelles.org/>

<https://www.sif.sc/>

bcm\_Seychelles Instagram Page

#### **6.2.2 In the last 5 years, what funding sources have been available for your country to support**

## marine turtle conservation?

YES

Details: (national, other governments, international organisations, donor organisations, industry, private sector, foundations)

>>> Seychelles is relatively successful in accessing donor funds in particular the Global Environment Facility, European Union and World Bank funds and has a broad portfolio of funded projects. Furthermore, Adaptation Fund, Nairobi Convention, CEPF, GFCR, SGP, WIOMSA, COI.

Local

SeyCAAT, Government Budget, SOSF, Private Sector donations, Small Grants Programme ( SGP)

### 6.2.3 In accordance with CITES decisions on marine turtles, has your country attempted to raise funds for the activities listed below through CITES?

YES

a) If yes, please indicate the number of the activity (or activities) in the text box below. Was this effort successful?

1. Training and capacity building and training on the implementation and enforcement of national and international regulations that apply to marine turtles, and on identification, monitoring, reporting and wildlife enforcement capability;
2. raise awareness on conservation status and compliance with national legislation and cites in relation to marine turtles;
3. research into the socioeconomics of harvest of marine turtles, its effect on conservation and sustainability of alternative livelihoods;
4. cooperative international/regional research to establish population estimates to evaluate the impact of illegal trade;
5. research into the impact of fisheries on marine turtles and its linkages to illegal trade.

>>> 1. Yes. Successful

2. Yes. Successful

3. No. Will attempt to contract out a study this year

4. No. But we are open to discuss this further with interest partners. No illegal international trade of sea turtle or products have been reported from Seychelles so far

Yes. Somewhat successful. But no link to illegal trade

b) Does your country require assistance in raising funds for any of these activities? Which ones? (provide numbers of the activities in the box)

>>> Yes.

Activities 1,3,4 and 5

## 6.3 COORDINATION AMONG GOVERNMENT AGENCIES

Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

### 6.3.1 List government agencies that play a role in the conservation and management of marine turtles and their habitats in your country. Please indicate their responsibilities in relation to protecting marine turtles and their habitats.

If more rows are required, please contact the secretariat at [iosea@un.org](mailto:iosea@un.org)

|  | Role in the conservation of marine turtles and their habitats   | Name of the agency           |
|--|---|------------------------------|
|  | Policy and Legislation, Resource mobilization, Conservation and Management, monitoring control and surveillance | Department of Environment    |
|  | Policy and Legislation, Resource Mobilization, coastal rehabilitation, mitigation and adaptation to CC          | Department of Climate Change |
|  | Policy and legislation, monitoring control and surveillance, scientific research ( fisheries data)              | Department of Fisheries      |
|  | Policy and legislation, socio economic studies  | Department of Blue Economy   |
|  | Policy and legislation, marketing, socio economic studies   | Department of Tourism        |
|  | Educational campaigns, school curriculum  | Ministry of Education        |
|  | Monitoring, control, surveillance, Enforcement  | Seychelles Coast Guard       |

|  |  |                     |
|--|--|---------------------|
|  | Monitoring, control, surveillance, Enforcement | Seychelles Police   |
|  | Monitoring, control, surveillance, Enforcement | Seychelles Airforce |
|  |  |                     |

**6.3.2 What are the main limitations of enforcing the laws in relation to marine turtles and their habitats across and between jurisdictions?**

Details:

>>> unclear legal frameworks, weak penalizing systems that fail to discourage unlawful practices, lack of political interest or involvement by authorities, and limited local capacity, both human and financial. Inadequate coordination between member states.

References and links:

>>> none



## **OTHER REMARKS**

**Please provide any comments/suggestions to improve the present reporting format.**

>>> Recommend shortening the report template.

**Feel free to include additional information not covered above:**

>>> None