

IOSEA Marine Turtles Memorandum of Understanding -National Report 2024

INSTRUCTIONS FOR COMPLETING THE NATIONAL REPORTING QUETIONNAIRE:

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); with a copy to the Coordinator (heidrun.frisch-nwakanma@un.org), as a Word attachment.

GENERAL INFORMATION

Signatory State:

>>> Sultanate of Oman

List any other agencies, institutions, or NGOs that have provided input: >>> Ministry of Agriculture, fisheries and Water resources Ministry of Higher Education, Research and Innovation Environment Authority Sultan Qaboos University Environment Society of Oman

Memorandum in effect in Signatory State since (dd/mm/yyyy): >>> 1June 2004

This report was last modified: (dd/mm/yyyy): >>> 28/02/2024

Designated Focal Point (and full contact details): >>> Environment Authority International Co-operation Department Chairman Office Environment Authority Tel: +968 24404817 Fax: +968 24691232 E-mail: icd@ea.gov.om PO.box 323 , Muscat , P.C: 100 Muscat, Sultanate of Oman

MARINE TURTLE SPECIES AND HABITATS

Provide sources of information supporting the 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 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, 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.

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.

ph	ieogra hic rea	Type of habitat (nesting, feeding developmental)?	Species, genetic stock	Number of egg clutches per year	Population trend (increase, decrease, stable, unknown)
De	ecreas	5.4	Loggerhead (Caretta caretta), North-west Indian Ocean Subpopulation	Nesting	Masirah Island
Un n	nknow		Green (Chelonia mydas), North- west Indian Ocean	Nesting	Ras Al Hadd , Masirah Island , Dimaniyyat Islands Nature Reserve
Un n	nknow	Unknown	Hawksbill (Eretmochelys imbricata) North-west Indian Ocean	Nesting	Dimaniyyat Islands Nature Reserve
Un	nknow		Olive ridley (Lepidochelys olivacea) West Indian Ocean	Nesting	Masirah Island

 b) Do government agencies and/or scientific institutions submit data on the occurrence and population numbers of marine turtles to an international database?
 NO

c) Does your country have index nesting beaches in the IOSEA region? $\ensuremath{\boxtimes}$ YES

d) Does your country have an IOSEA Network site?

☑ NO

0.2 Site-specific information

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. 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 seperate section for each site.

Sites Site 1

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

Name of the site:

>>> Masirah Island

State/province:

>>> South Al Sharqiyah

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 58.898292, 20.693993 - 58.638285, 20.166245

Length:

>>> 83 km

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)?

c) Is this an IOSEA Network Site? ☑ NO

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

☑ NO

Details:

>>> The beaches are within the scope of a proposed reserve on Masirah Island, and these beaches are currently managed as areas of environmental importance.

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

>>> A monitoring project started in 2008 by the Environment Society of Oman, in collaboration with the Environment Authority. The monitoring of loggerhead turtles is carried out annually throughout their nesting season (May-September). Monitoring of hawksbill and olive Ridley nesting has been taking place in 2012, and of green turtles since 2016.

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.

	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Flatback (Natator depressus)					
Olive ridley (Lepidochelys olivacea)	Annually	2012	Unknown		Yes
Hawksbill (Eretmochelys imbricata)	Annually	2012	Unknown		
Leatherback (Dermochelys coriacea)					
Green (Chelonia mydas)	Annually	2016	Unknown		
Loggerhead (Caretta caretta)	Annually	1977-1996, 2008- present	Decreasing	5.4	

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

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.

	Species present at this location	Are marine turtles monitored in water?	Populatio n number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Flatback (Natator depressus)						NO
Olive ridley (Lepidochelys olivacea)	Annually	2012	Unknown		NO	Yes
Hawksbill (Eretmochelys imbricata)	Annually	2012	Unknown		NO	Yes
Leatherback (Dermochelys coriacea)						NO
Green (Chelonia mydas)	Annually	2012	Unknown		NO	Yes
Loggerhead (Caretta caretta)	Annually	2008	Decreasing	10'223	NO	Yes

Please provide any references and links:

>>> Willson, et al. (2020). Evaluating the long-term trend and management of a Globally Important Loggerhead Populations Nesting on Masirah Island. Frontiers in Marine Science. (Frontiers | Evaluating the Long-Term Trend and Management of a Globally Important Loggerhead Population Nesting on Masirah Island, Sultanate of Oman (frontiersin.org))

Phillott, A.D. and Rees, A.F. (eds.) (2021). Sea Turtles in the Middle East and South Asia Region. MTSG Annual Regional Report 2021. Draft Report to the IUCN-SSC Marine Turtle Specialist Group.

(static1.squarespace.com/static/5e4c290978d00820618e0944/t/6202b7a3558d77165b8d82f1/164434527346 7/MTSG-RR_Middle-East-South-Asia_2021.pdf

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

	Unknow n	Non e	Low (rare event)	Mediu m	High (common occurrence)
Other (type in)					
Predation by domestic / feral animals (cats, dogs)					
Natural threats, disease, predation of nests/nesting females or natural predation at sea					
Sand mining / removal					
Vehicles					
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)					
Artificial lighting (on land or near shore)					
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)					

Inshore oil pollution			
Industrial effluent			
Marine debris (e.g. plastics at sea, flotsam)			
Boat strikes		V	
Incidental capture in coastal fisheries			
Egg collection (i.e. direct harvest by humans)			
Direct harvest of animals in coastal waters at or near the site			
Exploitation of nesting females (i.e. direct harvest on land)			

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

 $\ensuremath{\square}$ Training/ capacity building for authorities and/or managers

☑ Training/ capacity building for people from coastal communities

☑ Training/capacity building for community-based activities

☑ Scientific equipment and/or technical support

 $\ensuremath{\boxdot}$ Technical expertise to enhance conservation or management at the site

I) 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.

>>> Willson, et al. (2020). Evaluating the long-term trend and management of a Globally Important Loggerhead Populations Nesting on Masirah Island. Frontiers in Marine Science. (Frontiers | Evaluating the Long-Term Trend and Management of a Globally Important Loggerhead Population Nesting on Masirah Island, Sultanate of Oman (frontiersin.org))

Phillott, A.D. and Rees, A.F. (eds.) (2021). Sea Turtles in the Middle East and South Asia Region. MTSG Annual Regional Report 2021. Draft Report to the IUCN-SSC Marine Turtle Specialist Group.

(static1.squarespace.com/static/5e4c290978d00820618e0944/t/6202b7a3558d77165b8d82f1/164434527346 7/MTSG-RR_Middle-East-South-Asia_2021.pdf

Sites Site 2

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

Name of the site: >>> Ras Al Hadd (Turtles Reserve)

State/province:

>>> Ash-Sharqiyah South Governorate

Latitude and longitude (middle of the beach or two from either end of the beach): >>> N 2490610.64, E 788834.15, N 2494361.08, E 784116.70

Length:

>>> 5 Km + 2 Km (120km2)

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? ☑ NO

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

 $\boxdot \mathsf{YES}$

Details:

>>> It is a protect area declared on 23/4/1996 by Royal Decree No. (25/96). It Covers an area of 120 km2

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

>>> It is start monitoring since declared as a reserve area (the monitoring started before that

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.

	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Flatback (Natator depressus)					No
Olive ridley (Lepidochelys olivacea)					No
Hawksbill (Eretmochelys imbricata)					No
Leatherback (Dermochelys coriacea)					No
Green (Chelonia mydas)	annually	1996	unknown	g	Yes
Loggerhead (Caretta caretta)					No

g) Please estimate the approximate area of adjacent in-water habitat for this site. I 1-2 km2

Please describe the approximate area of the in-water habitat near the site and provide any references and links:

>>> ONSS Coastal Marine Resource Mapping Final Report Rev 02 24 June 2019

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.

	Species present at this location	Are marine turtles monitored in water?	Populatio n number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Flatback (Natator depressus)						NO
Olive ridley (Lepidochelys olivacea)						NO
Hawksbill (Eretmochelys imbricata)						NO
Leatherback (Dermochelys coriacea)						NO

Green (Chelonia mydas)	NA	NA	unknown	unknown	No	Yes
Loggerhead (Caretta caretta)						NO

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

	Unknow n	Non e	Low (rare event)	Mediu m	High (common occurrence)
Other (type in)					
Predation by domestic / feral animals (cats, dogs)					
Natural threats, disease, predation of nests/nesting females or natural predation at sea					
Sand mining / removal					
Vehicles		V			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)					
Artificial lighting (on land or near shore)					
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)					
Inshore oil pollution					
Industrial effluent					
Marine debris (e.g. plastics at sea, flotsam)					
Boat strikes					
Incidental capture in coastal fisheries					
Egg collection (i.e. direct harvest by humans)					
Direct harvest of animals in coastal waters at or near the site					
Exploitation of nesting females (i.e. direct harvest on land)					

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 people from coastal communities

☑ Scientific equipment and/or technical support

☑ Technical expertise to enhance conservation or management at the site

Please provide details:

>>> Most of workers in this site have low level in degree of study. They are not specialist in marine turtles but they have knowledge and experience of how to deal with turtles. However, they don't have the ability to study the area and record all the threats in the area and to create a database.

I) 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.

>>> Book of Declared Nature Reserves In the Sultanate of Oman

Sites Site 3

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

Name of the site: >>> Dimaniyyat Islands Nature Reserves

State/province:

>>> Al Batinah North Governorate

Latitude and longitude (middle of the beach or two from either end of the beach): >>> N 2639056.18 , E 611794.52, N 2638988.63, E 612718.78

Length:

>>> 238.48m

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)?

c) Is this an IOSEA Network Site? ☑ NO

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

☑ YES

Details:

>>> It is a protect area declared on 3/4/1996 by Royal Decree No. (23/96). It Covers an area of 203 km2, also include the rocks and shallow waters that extend at 16-18km from the coast.

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

>>> The monitoring started in location since it was declared as nature reserve in 1996.

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.

	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Flatback (Natator depressus)					

Olive ridley (Lepidochelys olivacea)				
Hawksbill (Eretmochelys imbricata)	annually	1996	С	
Leatherback (Dermochelys coriacea)				
Green (Chelonia mydas)	annually	1996	a	
Loggerhead (Caretta caretta)				

g) Please estimate the approximate area of adjacent in-water habitat for this site. $\ensuremath{\boxtimes}$ 1-2 km2

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.

	Species present at this location	Are marine turtles monitored in water?	Populatio n number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Flatback (Natator depressus)						No
Olive ridley (Lepidochelys olivacea)						No
Hawksbill (Eretmochelys imbricata)	NA	NA	Unknown	Unknown	No	Yes
Leatherback (Dermochelys coriacea)						No
Green (Chelonia mydas)	NA	NA	Unknown	Unknown	No	Yes
Loggerhead (Caretta caretta)						No

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

	Unknow n	Non e	Low (rare event)	Mediu m	High (common occurrence)
Other (type in)					
Predation by domestic / feral animals (cats, dogs)				V	
Natural threats, disease, predation of nests/nesting females or natural predation at sea					
Sand mining / removal					
Vehicles					
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)					
Artificial lighting (on land or near shore)					

Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)			
Inshore oil pollution			
Industrial effluent			
Marine debris (e.g. plastics at sea, flotsam)			
Boat strikes			
Incidental capture in coastal fisheries			
Egg collection (i.e. direct harvest by humans)			
Direct harvest of animals in coastal waters at or near the site			
Exploitation of nesting females (i.e. direct harvest on land)			

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 people from coastal communities

Scientific equipment and/or technical support

 $\ensuremath{\boxdot}$ Technical expertise to enhance conservation or management at the site

Please provide details:

>>> Most of workers in this site have low level in degree of study. They are not specialist in marine turtles but they have knowledge and experience of how to deal with turtles. However, they don't have the ability to study the area and record all the threats in the area and to create a database.

I) 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.

>>> Book of Declared Nature Reserves In the Sultanate of Oman

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

1.2 REDUCTION OF INCIDENTAL CAPTURE AND MORTALITY

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.

1.2.1 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

2) Pelagic trawling

a) Fishing effort:

☑ PRESENT

Please provide the information below:

Number of vessels:

>>> 4

Boat size (range or average):

>>> average 90 m

Number of trips per year:

>>> average 180 day/year

Mesh size used:

>>> N/A

Geographic distribution: >>> Arabian Sea

If known, turtle species affected:

>>> N/A

Number of bycaught turtles per year:

>>> N/A

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)
 Devices that allow the escape of marine turtles (e.g. turtle excluder devices (TEDs)
 Spatial and temporal control of fishing (e.g. seasonal closures of fishing activities)

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

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

I Training programmes / workshops to train fishers on the use of bycatch reduction methods

Onboard observer programmes

The measure is mandatory under the following regulation:

>>> Living aquatic resources law

The measure is voluntary:

>>> Living aquatic resources law

Vessel monitoring systems

The measure is mandatory under the following regulation: >>> Living aquatic resources law

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

The measure is mandatory under the following regulation: >>> Living aquatic resources law

Training programmes / workshops to train fishers on the use of bycatch reduction methods

Details/future plans:

>>> All observers must undergo such training programs in order to be qualified in accordance with the established conditions and to ensure the conservation and sustainability of marine resources.

3) Set nets

a) Fishing effort:

☑ PRESENT

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:

>>> All coastal line

Number of bycaught turtles per year:

>>> N/A

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

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.

Informative videos, brochures, printed guidelines etc.

Details/future plans:

>>> Annual awareness programs are implemented regarding legal legislation and the conservation of marine resources.

4) Driftnet

a) Fishing effort

☑ PRESENT

Please provide the information below:

Number of vessels:

>>> 52000 (skiff), 5000 vessels (dhows)

Boat size (range or average):

>>> 5-19 m (average/skiff), up to 30 m for (dhows)

Number of trips per year:

>>> N/A

Mesh size used:

>>> 95 mm

Geographic distribution:

>>> All coastal line

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

 Devices that allow marine turtles to avoid the nets (e.g. stick lights)

 Effort management control

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 versel monitoring systems

☑ Informative videos, brochures, printed guidelines etc.

Vessel monitoring systems

The measure is mandatory under the following regulation: >>> Living aquatic resources law

Informative videos, brochures, printed guidelines etc.

Details:future plans: >>> Annual awareness programs are implemented regarding legal legislation and the conservation of marine resources.

5) Purse seine (with or without FADs)

Please provide the information below:

Number of vessels:

>>> 12 coastal vessels, 2 commercial vessels

Boat size (range or average):

>>> Average 67 m (commercial vessels)

Number of trips per year:

>>> N/A (coastal vessels), 7 trips/year (commercial vessels)

Mesh size used:

>>> N/A

Geographic distribution:

>>> Arabian Sea & Indian Ocean

If known, turtle species affected:

>>> N/A

Number of bycaught turtles per year:

>>> N/A

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

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.

 $\ensuremath{\boxtimes}$ Onboard observer programmes

☑ Vessel monitoring systems

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

I Training programmes / workshops to train fishers on the use of bycatch reduction methods

☑ Informative videos, brochures, printed guidelines etc.

Onboard observer programmes

The measure is mandatory under the following regulation: >>> Living aquatic resources law

Vessel monitoring systems

The measure is mandatory under the following regulation: >>> Living aquatic resources law

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

The measure is mandatory under the following regulation: >>> Living aquatic resources law

Training programmes / workshops to train fishers on the use of bycatch reduction methods

Details/future plans:

>>> All observers must undergo such training programs in order to be qualified in accordance with the established conditions and to ensure the conservation and sustainability of marine resources.

Informative videos, brochures, printed guidelines etc.

Details/future plans:

>>> Annual awareness programs are implemented regarding legal legislation and the conservation of marine resources.

6) longline

a) Fishing effort

☑ PRESENT

Please provide the information below:

Number of vessels:

>>> Average 50 m

Boat size (range or average):

>>> Average 50 m

Number of trips per year:

>>> 7 trips/year

Mesh size used: >>> N/A

Geographic distribution:

>>> Indian Ocean

If known, turtle species affected: >>> N/A

Number of bycaught turtles per year: >>> N/A

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)
 Appropriate combinations (as per existing guidelines e.g., FAO, IOTC guidelines) of hook size and design, type of bait, depth, gear specifications and fishing practices

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)

I Training programmes / workshops to train fishers on the use of bycatch reduction methods

Vessel monitoring systems

The measure is mandatory under the following regulation: >>> Living aquatic resources law

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

The measure is mandatory under the following regulation: >>> Living aquatic resources law

Training programmes / workshops to train fishers on the use of bycatch reduction methods

Details/future plans:

>>> All observers must undergo such training programs in order to be qualified in accordance with the established conditions and to ensure the conservation and sustainability of marine resources.

7) Artisanal fishing gear

Type and description:

>>> Cages, bottom line, driftnet, drift gillnet, cast net & handline

a) Fishing effort

☑ PRESENT

Please provide any available information below:

Number of vessels:

>>> 25000 boat (skiff), 680 vessels (dhows)

Boat size (range or average):

>>> 5-19 m (average/boats), up to 30 m for vessels

Number of trips per year: >>> Average 140-160 day/year (full time/ boat), 80-90 day/year (part time/boat), 200 days/year (artisanal vessel)

Main gear used (beach seine, traps, nets, handline, other?):

>>> ?): Cages, bottom line, driftnet, drift gillnet, cast net & handline

Geographic distribution:

>>> All coastal line

If known, turtle species affected:

>>> N/A

Number of bycaught turtles per year:

>>> N/A

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

Devices that help marine turtles avoid or escape the nets

Appropriate combinations (as per existing guidelines e.g., FAO, IOTC guidelines) of hook size and design, type of bait, depth, gear specifications and fishing practices

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

☑ Effort management control

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.

 $\ensuremath{\boxtimes}$ Vessel monitoring systems (VMS), where applicable

 $\ensuremath{\boxdot}$ Informative videos, brochures, printed guidelines etc

Vessel monitoring systems (VMS), where applicable

The measure is mandatory under the following regulation: >>> Living aquatic resources law

Informative videos, brochures, printed guidelines etc.

Details/future plans:

>>> Annual awareness programs are implemented regarding legal legislation and the conservation of marine resources.

8) Other types of fisheries

Type of description:

>>> N/A

1.2.2 Provide sources of information supporting the responses in 1.2.1, 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 digital files to this report.

References and links: >>> https://www.maf.gov.om

1.2.3 Are the bycatch mitigation measures described above (in **1.2.1**) periodically reviewed and evaluated for their efficacy?

 $\boxdot \mathsf{YES}$

If yes, please give details.

>>> Conducting technical experiments on fishing gears to develop and increase its efficiency.

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?

☑ NO

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?

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.

 \boxdot NO

Details:

>>> Harvesting of turtles and their eggs is illegal by the national laws

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

 \boxdot NO

b) Egg consumption

 \boxdot NO

c) Fat and oil consumption

☑ NO

d) Traditional medicine ☑ NO

e) Shell

☑ NO

f) Making of tortoise shell products (bekko)

☑ NO

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

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.

II more rows	are required, pleas	se contact the sec	retarat at iosea@u	n.org

Legislat ion title	Legislati on date	Is traditional use allowed under this legislation?	Is the legislation enforced?	What are the challenges?
bycatch	Yes	No	13 Feb 2019	(20/2019 Law on Aquatic Living Wealth
	Yes	No	8 Jan 2003	(6/2003) Law on Nature Reserves and Wildlife Conservation
	Yes	No	14 Nov 2001	(114/2001) Law on conservation of the Environment and Prevention of Pollution
	Yes	No	23 Apr 1996	(25/96) Law on Establishing Turtle Reserve
	Yes	No	27 Jan 2019	(34/2019) ministerial decision on Regulation the used of Hayal (Drift Gillnets) for fishing
	Yes	NO	30 July 2017	MD (64/2017) regulating the Turtle reserve

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? ☑ UNKNOWN

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): >>> The is only a speculation that illegal harvest might happened in the remote areas where low nesting beach and not frequent patrolling for example Mahoot nesting beaches

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:

>>> The is low impact of illegal harvest on the population of marine turtles

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)

 \square 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? $\ensuremath{\boxtimes}$ YES

If yes, please describe these measures in detail.

Details:

>>> Turtle commandos to patrol the beaches

1.3.9 Are there touristic activities linked in marine turtles in your country? $\ensuremath{\boxtimes}$ YES

If yes, please indicate which type:

	N o	Ye s
a) Nesting turtle observation		1
b) Hatching releases		V
c) Swimming/ snorkeling activities	2	
Other (please describe)		

Details:

>>> Turtle nesting tours are organised at at Ras Al Jinz. Visitors are allowed to witness the nesting process without interrupting the creatures themselves.

References and links:

>>> https://www.rasaljinz-turtlereserve.com/ar/turtle-viewing/

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

 $\boxdot \mathsf{YES}$

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

Details:

>>> Management regulations are established where the touristic activities are organized, mainly in Turtle reserve. Some of these regulations include Prohibition to enter the nesting beaches during the night without permits , camping for more than 80 people; a speed above 50 km/h with cars; drive on the seashore; (v) damage turtles and other wildlife; use electrical equipment and flash after 10:00 p.m.; diving outside the designated areas.

References and links:

>>> MD (64/2017) regulating the Turtle reserve 30 July 2017 https://qanoon.om/p/2017/meca20170064/

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.

☑ NO

1.3.13 Has you 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. $\ensuremath{\boxtimes}$ NO

Details:

>>> NO seizures or successful prosecutions to illegal trade in wildlife

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

Implemented at the sites described in question 0.2 (name the sites, where this applies): >>> Masirah Island , Ras Al Hadd (Turtle reserve) , Dimaniyyat Islands Nature reserves

b) Nesting beach protection (patrolling)

☑ YES

Implemented at the sites described in question 0.2 (name the sites, where this applies): >>> Masirah Island , Ras Al Hadd (Turtle reserve) , Dimaniyyat Islands Nature reserves

c) Predator control

☑ NO

d) Nest screening (placing wire screens over the buried nests) $\ensuremath{\square}$ NO

e) Vehicle access restrictions

☑ YES

Implemented at the sites described in question 0.2 (name the sites, where this applies): >>> Masirah Island , Ras Al Hadd (Turtle reserve) , Dimaniyyat Islands Nature reserves

f) Regular removal of debris / clean-up programmes

List recent clean-up programmes/references and links: >>> Masirah cleaning campaign

Implemented at the sites described in question 0.2 (name the sites, where this applies): >>> Masirah Island , Ras Al Hadd < Dimaniyyat Islands Nature reserves

g) Has re-vegetation of dunes at nesting beaches been carried out, using native vegetation? $\ensuremath{\boxtimes}$ NO

h) Building location design regulations (coastal protection)

☑ NO

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

☑ YES

Implemented at the sites described in question 0.2 (name the sites, where this applies): >>> Masirah Island , Ras Al Hadd < Dimaniyyat Islands Nature reserves

1.4.2 To what extent is egg relocation practiced in your country (including relocation to hatcheries)?

☑ Egg relocation is NEVER practiced

1.4.3 Has your country undertaken an evaluation of the effectiveness of its nesting beach management programmes in terms of maximizing the recruitment of marine turtle hatchlings? \square NO

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: >>> Turtle Reserve 23 Apr 1996 Al Dimaniyyat Islands Nature Reserve 3 April 1996 Wetland Reserve in Al Wusta Governorate 21 September 2014

References and links:

>>> RD (25/96) Establishing Turtle Reserve RD (23/96) Establishing Demaniyat Islands Natural Reserve RD(51/2014) establishing the Wetlands Reserve in Al Wusta Governorate.

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

Details: >>> No

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. I YES

Details:

>>> Annual program for monitoring of marine water for pollutant

References and links:

>>> www.ea.gov.om

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:

>>> In the protected areas, there are regulations to prohibit the use of poisonous chemicals and explosives in the marine environment.

References and links:

>>> https://qanoon.om/p/2019/meca20190062/

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).

 $\ensuremath{\boxtimes}$ YES see below

Details/future plans:

>>> The Environment Authority, in cooperation with a number of private sector companies, launched a project to lower artificial structures to protect coral reefs in the state of Khasab in Musandam Governorate. The project aims to protect and develop coral reefs in the governorate by making and landing (500) environmentally friendly concrete blocks at a site previously identified by specialists from the governorate's environmental department.

The project includes a package of initiatives to be implemented over a period of five years, such that (250) concrete forms were lowered during 2023, and another (250) will be lowered in 2024.

It also includes conducting a field study of the site during the years 2025-2027, in order to monitor the rates of growth and survival of coral reefs on these structures and the extent of the success of such projects in protecting and sustaining marine resources.

References and links:

>>> https://www.youtube.com/watch?v=Jec6xN0cN3E https://omannews.gov.om/topics/ar/117/show/418754

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 Environment Authority sought to implement a long-term plan to rehabilitate and preserve mangrove trees in various regions of the Sultanate, and many practical steps were taken to implement this, especially with regard to planting mangrove trees, where some creeks were rehabilitated and existing areas increased, in addition to planting new creeks in various governorates of the Sultanate, where they reached The number of planted seedlings is more than 740 thousand seedlings until the end of 2023, represented in 32 sites along the coast of the Sultanate.

References and links:

>>> https://www.ea.gov.om/ar/knowledge-center/projects-initiatives/mangrove-cultivation/ https://www.youtube.com/watch?v=nqGJiAI78wQ

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

☑ NO efforts to recover degraded seagrass habitats

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 secretarat at iosea@un.org

Site geographical name (refer to questions 0.1 and 0.2)	Species genetic stock	Start year	Duration of the monitoring programme	Nature of monitori ng	Population trend	Is this a protected area?
NO	Decreasi ng	Nesting Survey s	Ongoing	2008	Loggerhead (Caretta caretta) North-West Indian Ocean	Masirah Island
Yes	Unknown	Nesting survey s	Ongoing	1976	Green (Chelonia mydas), North-west Indian Ocean Subpopulation	Ras Al Hadd (Turtles Reserve)

3.1.2 Has you country undertaken an evaluation of its marine turtle monitoring programmes? $\ensuremath{\boxtimes}$ NO

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):

>>> Long term monitoring program by flipper tagging started since 1977 in Ras alHadd and lately in Masirah and al Dimanyyat Islands nature reserve . The tags are applied to all the four nesting turtles (Green , Loggerhead , Hawksbill and Olive ridley)

References and links:

>>> https://twitter.com/ea_oman/status/1532766941059985411

b) Satellite tracking

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

>>> - The Environment Authority, in cooperation with the Five Oceans Environmental Services Company (2023), implemented a satellite tracking project for ten green turtles at Ras Al Hadd Beach in the Turtle Reserve.
 - The Masirah Turtle Conservation Project (2004-2008) tracked 10 nesting loggerheads, two nesting greens, and nine nesting olive ridleys from Masirah.

- EWS-WWF Marine turtle conservation project (2011-2012) tracked 10 nesting hawksbill from Masirah. - Marine Turtles Research & Conservation Programme, a partenrship between the Environment Society of Oman and the Environment Authority, with local partners, placed 73 transmitters on nesting loggerheads, mainly on Masirah island (2006-2017). Some transmitters were placed loggerheads nesting on the Hallaniyat Islands

References and links:

>>> Rees. A. et al., (2018). The Masirah Turtle Conservation Project: the first turtle tracking on Masirah Island, Oman, Indian Ocean Turtle Newsletter, Issue 28, July 2018

Antonopoulou & Pilcher, (2018) Marine turtle conservation project: monitoring hawksbill nesting populations in the Arabian region, Indian Ocean Turtle Newsletter, Issue 28, July 2018

Tiwari et al., (2018), Satellite telemetry studies on nesting loggerhead turtles in Oman, Indian Ocean Turtle Newsletter, Issue 28, July 2018

c) Genetic studies

☑ NO

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

Details, examples:

>>> The project contributed to increasing knowledge about sea turtle movements, nesting and feeding sites, which enabled the concerned authorities to manage and preserve turtle nesting and feeding sites,

3.1.5 Is the use of traditional ecologial knowledge in research being promoted? Z YES

Explanation/examples:

>>> The traditional knowledge of fishermen and local communities is used in research related to determining nesting or feeding sites. For example, some local communities have knowledge to determine the location of eggs in the beach area or the time at which small turtles will appear by observing the egg nest.

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.

References and links:

>>> Global distribution of Chelonid fibropapilloma-associated herpesvirus among clinically healthy sea turtles, A. Alfaro-Nunez, 2014, BMC Evolutionary Biology

References and links:

>>> Addressing marine wildlife entanglement in derelict fishing nets using community-based social marketing: case study and lessons learnt, M. Sarrouf Willson, 2021, Social Marketing Quarterly

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?

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.)

 $\boxdot \mathsf{YES}$

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

>>> Environment Authority in joining with National Oceanic and Atmospheric Administration (NOAA), in the United States of America, and a team from Future of the Seas Company, are implementing a project to study the success rate of loggerhead turtles nests in Masirah in the South Al Sharqiyah Governorate, for 5 yeas planed since 2022

References and links:

>>> https://timesofoman.com/article/135575-environment-authority-continues-study-on-success-rate-of-loggerhead-turtles-nests-in-masirah

b) Genetic characterization

 $\boxdot \mathsf{NO}$

c) Migratory and dispersal routes ☑ YES

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

>>> Cocaloca project (2014) - A study of the oceanic movement of juvenile loggerheads showed that nine out of 18 loggerheads tracked from Reunion Is. between 2007 and 2011 swam towards the waters of Oman, with a mean traveling direction corresponding roughly to the direction of Masirah Is. EWS-WWF Hawksbill conservation project (2011-2015) EWS-WWF Green turtle project (2016)

References and links:

>>> Dalleau, M., Benhamou, S., Sudre, J., Ciccione, S. and Bourjea, J. (2014). The Spatial Ecology of Juvenile Loggerhead Turtles (Caretta caretta) in the Indian Ocean Sheds Light On the "Lost Years" Mystery. Marine Biology 161:1835-1849.

Tardy, C., Mayeul, D., Jaquemet, S., Willson, M., Al Balushi, A. and Willson, A. (2015). Genetic Characterisation and Trophic Ecology of the Loggerhead Turtle in the Western Indian Ocean. In: POE2.10 POCT FEDFEDER Biodiversité Seminaire de Restitution. Campus du Moufia, Saint Denis, Reunion. Unpublished Report. EWS-WWF, (2016), Gulf Green Turtle Conservation Project, 2016 Tagging Season Report EWS-WWF, (2015), Marine Turtle Conservation Project. Final Scientific Report. Arabian Region.

d) Other biological and ecological aspects

☑ NO

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:

>>> The research contributed to formulating the initial draft of the strategy for the protection and conservation of sea turtles in the Sultanate of Oman, by identifying the most important threats to which sea turtles are exposed, as well as the most important areas of focus that the concerned authorities must pay attention to in the future in order to preserve sea turtles.

References and links:

>>> https://timesofoman.com/article/124175-environment-authority-organises-workshop-on-conservation-ofmarine-turtles

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

 \blacksquare YES

Details, future plans:

>>> The local community participates with their knowledge in determining protection areas for sea turtles, as well as in controlling violations through their knowledge in tracing people.

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?

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):

>>> Loggerhead North-West Indian Ocean subpopulation regional red list assessment in 2015.

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

 $\ensuremath{\boxdot}$ once in more than 5 years

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):

>>> A workshop on implementing the national action plan for the protection and conservation of marine turtles was conducted in 2022. The objectives of the workshop were to assess the situation, opportunities and challenges to conserve the marine turtles in Sultanate of Oman.

References and links:

>>> https://www.omanobserver.om/article/1129369/oman/environment/workshop-organised-on-conservation-of-marine-turtles

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? Z YES

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

Details:

>>> Masirah island , Ras Al Hadd (Turtles Reserve)

The Turtle Commando Programme's main objectives include enhancing public awareness regarding the significance of sea turtles, inspiring youth to volunteer in environmental conservation, and cleaning turtle nesting beaches of plastic and fishing waste. The programme also focuses on finding solutions to several challenges that threaten turtles, such as environmental degradation, and contribute to their reproduction and environmental preservation.

References and links:

>>> https://www.ea.gov.om/en/media-center/media-news/news/closing-ceremony-of-the-turtle-commando-program/

https://www.muscatdaily.com/2023/08/14/turtle-commandos-save-turtles-biodiversity-in-oman/

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

Details/future plans:

>>> The Environment Society of Oman has produced various awareness raising material relevant to sea turtle conservation, listed below:

Awareness videos accessible on ESO's Youtube channel (ESOMediaChannel - YouTube):

1. ESO - Ghost Fishing Animation - YouTube

2. Efforts Done With The local Community of Masirah - ةريصم ةيالول يلحملا عمتجملاً عم لصاوتلاً دومج (youtube.com)

Voices from Masirah Island - YouTube || ةري صم ةريزج ن م تاوصأ .3

4. Environment Society of Oman - Responsible Net Disposal Awareness Campaign (youtube.com)

Science communication material in both English and Arabic freely available on ESO's website:

1- ESO-DINR-Infographic-EN-Dec-2023.pdf

2- SEA_TURTLES_OF_MASIRAH_EN_FINAL2 (eso.org.om)

Sea turtles of Oman booklet and a turtle-themed children activity book currently in design and to be finalised in Q3 2024.

References and links:

>>> https://www.youtube.com/@ESOMediaChannel/videos https://www.youtube.com/watch?v=eLce_B1C3eU&t=2s https://www.youtube.com/watch?v=R3IwPvtEojA https://www.youtube.com/watch?v=R3IwPvtEojA https://www.youtube.com/watch?v=h6MN49IetbE https://www.youtube.com/watch?v=0CcNj2zkFMA&t=46s https://eso.org.om/wp-content/uploads/2022/11/ESO-DINR-Infographic-EN-Dec-2023.pdf https://eso.org.om/wp-content/uploads/2022/11/SEA_TURTLES_OF_MASIRAH_EN_Dec-2023.pdf

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

☑ Tourists
 ☑ Media
 ☑ Topochory

☑ Teachers☑ Students

4.14 Have any community learning centres or information centres been established in your

country?

☑ YES

Details/future plans:

>>> "Turtle Visitor Centre" in the Turtle Reserve is specially dedicated to the Sea turtle's lifecycle and the archaeological findings at Ras Al Jinz. This "Turtle Visitor Centre" is one of its kind introducing an array of new museographical display systems and technologies in the Sultanate of Oman. It's open all days from 9 am to 08:30 PM.

References and links:

>>> https://www.rasaljinz-turtlereserve.com/en/facilities/?csrt=9147378036659709286

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?

☑ Local/Fishing communities☑ Military, Navy, Police☑ NGOs

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?

☑ NO

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:

>>> Ongoing cooperation between ESO and Environment Authority within ESO's marine turtle research and conservation programme.

Ongoing cooperation between private fishing industry, academic institutions and international NGOs (Ocean Ecology Network), and local partners (Futures Seas Global SPC) to understand and mitigate the impact of bycatch.

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 c**ooperation for addressing the issues listed below?

a) Illegal fishing in territorial waters

☑ ESSENTIAL

b) Incidental capture by foreign fleets in territorial waters Z ESSENTIAL

c) Enforcement/patrolling of territorial waters

☑ IMPORTANT

d) Illegal fishing in EEZ

☑ IMPORTANT

e) Incidental capture by foreign fleets in EEZ

☑ IMPORTANT

f) Enforcement/patrolling of EEZ

☑ LIMITED

g) Harvest exploitation of turtles and eggs ☑ IMPORTANT

h) Illegal trade in turtle parts and products ☑ LIMITED

i) Development of gear technology to reduce bycatch of marine turtles ☑ ESSENTIAL

k) Training / capacity-building

☑ IMPORTANT

I) Alternative livelihood development

m) Characterisation of turtle populations/genetic stocks

☑ IMPORTANT

n) Identification of migration routes ☑ IMPORTANT

o) Tagging / satellite tracking

☑ IMPORTANT

☑ IMPORTANT

q) Genetic studies

☑ IMPORTANT

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:

>>> IOSEA

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

Details:

>>> Environment Society of Oman, Future Seas Global SPC, Ocean Ecology Network

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:

>>> - Development of national strategic conservation management plans or action plans

- Enhanced monitoring and research on migration, population health and numbers

- Enhances patrolling and law enforcement

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?

⊠ NO

Details:

title of the document, year, link: >>> Workshop held in 2021 to draft the action plan but still needs to be finalised and published "National Marine Turtle Conservation Action Plan– Sultanate of Oman (2023 – 2027)"

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? I YES

Details:

Title of the documents, year, link:

>>> The key management measures have been identified in the draft of National action plan during workshop held in 2022.

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: >>> Loggerhead (Caretta caretta), North-West Indian Ocean Green (Chelonia mydas), North-West Indian Ocean Hawksbill (Eretmochelys imbricata), North-West Indian Ocean Olive Ridley (Lepidochelys olivacea), West Indian Ocean

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

Please list up to 5 corresponding activities from the IOSEA Conservation and Management Plan (**CMP**). >>> fisheries interactions/ Beach driving/light pollution/habitat modification predation/plastic pollution, boat and shipping traffic

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? NO

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

Details:

>>> Some policies are needed to address control of light pollution and reducing the amount of artificial light that is visible from nesting beaches. Swimming with the turtles may have to be assisted and regulated.

5.4.5 Does your country have legislation that explicity 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? velocity NO

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 Applicable

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

☑ NO VIEW

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 acitivty or IOSEA Work Programme measure: >>> Not Applicable

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)

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?

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 secretarat at iosea@un.org

Name of the agency	Role in the conservation of marine turtles and their habitats
Researches , Monitoring and implementing regulations protecting turtles	Environment Authority
-Setting and implementing the ploicies for the development and exploitation of living water resouces	Ministry of Agriculture, Fisheries and Water Resources
Management of tourism in some of the turtles nesting beaches	Ministry of Heritage and tourism
Scientific researches	Sultan Qaboos University

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:

>>> Not applicable

OTHER REMARKS