

#### **CMS**

## 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:

>>> Kingdom of Saudi Arabia

List any other agencies, institutions, or NGOs that have provided input: >>> National Centre for Wildlife.

Memorandum in effect in Signatory State since (dd/mm/yyyy): >>> 01/11/2005

Designated Focal Point (and full contact details): >>> National Centre for Wildlife ncw@ncw.gov.sa P.O. BOX. 4508, Riyadh 12411 (+96615109090) WhatsApp Chatbot: +966539470008

#### 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.

Geograp hic area	Type of habitat (nesting, feeding developmental)?	Species, genetic stock	Number of egg clutches per year	Population trend (increase, decrease, stable, unknown)
decrease	< 300	Chelonia mydas	nesting, feeding	Ras Baridi
decrease	< 50	Eretmochelys imbricata	nesting, feeding	Farasan Islands Protected
decrease	< 300	Chelonia mydas + Eretmochelys imbricata	nesting, feeding	Karan Island
decrease	< 200	Chelonia mydas + Eretmochelys imbricata	nesting, feeding	Jana Island
decrease	< 200	Chelonia mydas + Eretmochelys imbricata	nesting, feeding	Marmar 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?  $\hfill \square$  NO

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: >>> Ras Baridi

#### State/province:

>>> Yanbu city

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 24.255267, 37.572285

Length:

>>> 35 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)?

☑ 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)?

☑ NO

Details:

>>> 1986

Permanently during the season, and this may stop due to lack of human resources.

- e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?
- >>> 1986 Permanently during the season, and this may stop due to lack of human resources.
- 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)					
Leatherback (Dermochelys coriacea)					
Green (Chelonia mydas)	More than 12 years	1986	decrease	С	Ras Baridi Karan Island Jana Island
Loggerhead (Caretta caretta)					

g) Please estimate the approximate area of adjacent in-water habitat for this site.  $\ \ \, \ \, 5\text{-}10\ \text{km}^2$ 

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

>>> The areas mentioned in the table are considered important areas for sea turtle nesting in the Kingdom of Saudi Arabia. The surrounding habitat area is diverse, with seagrasses and a good diversity of corals, but has been noticeably affected by the death of various parts of the reef due to rising temperatures. The grass areas range from more than 5 km2 to more than 50 km2 towards the northern Red Sea and southern Arabian Gulf.

### 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)						
Olive ridley (Lepidochelys olivacea)						
Hawksbill (Eretmochelys imbricata)						
Leatherback (Dermochelys coriacea)						
Green (Chelonia mydas)	More than 6 years	1998	unknown	unknown	No	Ras Baridi
Loggerhead (Caretta caretta)						

Please provide any references and links:

>>> Government reports A comprehensive habitat assessment is now being conducted on the Red Sea coast of Saudi Arabia, and the project will end in mid-2024.

### 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)					<b>7</b>
Predation by domestic / feral animals (cats, dogs)		Ø			
Natural threats, disease, predation of nests/nesting females or natural predation at sea		Ø	V		
Sand mining / removal				Ø	
Vehicles			7		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)					
Artificial lighting (on land or near shore)	Ø				
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)			Ø		
Inshore oil pollution				Ø	
Industrial effluent			Ø		

Marine debris (e.g. plastics at sea, flotsam)	<b>7</b>			
Boat strikes		<b></b>		
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)			<b>7</b>	

### 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 project development, fundraising, execution, evaluation
- ☑ Technical expertise to enhance conservation or management at the site

Please provide details:

>>> Lack of specialists and competencies in the field of sea turtle research and conservation projects

### k) If necessary, use the text box to give further details or clarification about any of the information provided.

>>> A National Conservation Action Plan for Marine Turtles (2023-2030) is in place, and the NCW is using the official channels and social media to increase the awareness of the community about the importance of conserving wildlife and how to sustainably use and handle them.

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.

>>> Projects aimed at preserving the environment began at the beginning of 2024, and this development came after government support with funds. The National Center for Wildlife attracts experts and specialized cadres, and these projects aim to preserve marine organisms and habitats.

### Sites Site 3

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

Name of the site:

>>> Karan Island

State/province:

>>> Jubail City

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 27.712778, 49.821499

Length:

>>> 5 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)?

☑ NO

#### 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

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

>>> 1986

Permanently during the season, and this may stop due to lack of human resources.

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)	More than 12 years	1986	decrease	В	Karan Island
Leatherback (Dermochelys coriacea)					
Green (Chelonia mydas)	More than 12 years	1986	decrease	С	Karan Island
Loggerhead (Caretta caretta)					

g) Please estimate the approximate area of adjacent in-water habitat for this site.  $\ \ \, \boxdot$  5-10~km2

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

>>> The areas mentioned in the table are considered important areas for sea turtle nesting in the Kingdom of Saudi Arabia. The surrounding habitat area is diverse, with seagrasses and a good diversity of corals, but has been noticeably affected by the death of various parts of the reef due to rising temperatures. The grass areas range from more than 5 km2 to more than 50 km2 towards the northern Red Sea and southern Arabian Gulf.

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?	Populati on number	Trend (decreasing, increasing, stable)	Monitore d since (year)	How often is this species monitored?
Flatback (Natator depressus)						
Olive ridley (Lepidochelys olivacea)						
Hawksbill (Eretmochelys imbricata)	Previously, there was no fixed assessment program with a fixed time frame	1998	unknown	unknown	No	Karan Island

Leatherback (Dermochelys coriacea)						
Green (Chelonia mydas)	Previously, there was no fixed assessment program with a fixed time frame	1998	decrease	unknown	No	Karan Island
Loggerhead (Caretta caretta)						

Please provide any references and links:

>>> Government reports A comprehensive habitat assessment is now being conducted on the Red Sea coast of Saudi Arabia, and the project will end in end-2024.

### 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)			<b>☑</b>		
Natural threats, disease, predation of nests/nesting females or natural predation at sea		<b>7</b>			
Sand mining / removal				Ø	
Vehicles					
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		Ø			
Artificial lighting (on land or near shore)					
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)					
Inshore oil pollution				Ø	
Industrial effluent				Ø	
Marine debris (e.g. plastics at sea, flotsam)	Ø				
Boat strikes			7		
Incidental capture in coastal fisheries		Ø			
Egg collection (i.e. direct harvest by humans)				<b>7</b>	
Direct harvest of animals in coastal waters at or near the site				Ø	
Exploitation of nesting females (i.e. direct harvest on land)				<b>7</b>	

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 project development, fundraising, execution, evaluation
- ☑ Technical expertise to enhance conservation or management at the site

Please provide details:

>>> Lack of specialists and competencies in the field of sea turtle research and conservation projects.

### k) If necessary, use the text box to give further details or clarification about any of the information provided.

>>> A National Conservation Action Plan for Marine Turtles (2023-2030) is in place, and the NCW is using the official channels and social media to increase the awareness of the community about the importance of conserving wildlife and how to sustainably use and handle them.

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.

>>> Projects aimed at preserving the environment began at the beginning of 2024, and this development came after government support with funds. The National Center for Wildlife attracts experts and specialized cadres, and these projects aim to preserve marine organisms and habitats.

### Sites Site 4

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

Name of the site:

>>> Jana Island

State/province:

>>> Jubail City

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 27.366001, 49.895016

Length:

>>> 3 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)?

 $\ensuremath{\square}$  NO

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

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

>>> 1986

Permanently during the season, and this may stop due to lack of human resources.

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)	More than 12 years	1986	decrease	В	Jana Island
Leatherback (Dermochelys coriacea)					
Green (Chelonia mydas)	More than 12 years	1986	decrease	С	Jana Island
Loggerhead (Caretta caretta)					

### g) Please estimate the approximate area of adjacent in-water habitat for this site. $\ \ \boxdot$ 5-10 km²

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

>>> The areas mentioned in the table are considered important areas for sea turtle nesting in the Kingdom of Saudi Arabia. The surrounding habitat area is diverse, with seagrasses and a good diversity of corals, but has been noticeably affected by the death of various parts of the reef due to rising temperatures. The grass areas range from more than 5 km2 to more than 50 km2 towards the northern Red Sea and southern Arabian Gulf.

### 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?	Populati on number	Trend (decreasing, increasing, stable)	Monitore d since (year)	How often is this species monitored?
Flatback (Natator depressus)						
Olive ridley (Lepidochelys olivacea)						
Hawksbill (Eretmochelys imbricata)	Previously, there was no fixed assessment program with a fixed time frame	1998	unknown	unknown	No	Jana Island
Leatherback (Dermochelys coriacea)						
Green (Chelonia mydas)	Previously, there was no fixed assessment program with a fixed time frame	1989	unknown	unknown	No	Jana Island
Loggerhead (Caretta caretta)						

Please provide any references and links:

>>> Government reports A comprehensive habitat assessment is now being conducted on the Red Sea coast of Saudi Arabia, and the project will end in end-2024.

### 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)				<b>7</b>	
Natural threats, disease, predation of nests/nesting females or natural predation at sea		<b>7</b>	Z		
Sand mining / removal				Ø	
Vehicles				Ø	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)	<b>7</b>				
Artificial lighting (on land or near shore)				Ø	
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)				V	
Inshore oil pollution				Ø	
Industrial effluent				Ø	
Marine debris (e.g. plastics at sea, flotsam)	Ø				
Boat strikes				Ø	
Incidental capture in coastal fisheries		Ø			
Egg collection (i.e. direct harvest by humans)				<b>7</b>	
Direct harvest of animals in coastal waters at or near the site				Ø	
Exploitation of nesting females (i.e. direct harvest on land)				Ø	

#### Other threat:

>>> mouse

### 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 project development, fundraising, execution, evaluation
- $\ensuremath{\square}$  Technical expertise to enhance conservation or management at the site

Please provide details:

>>> Lack of specialists and competencies in the field of sea turtle research and conservation projects.

### k) If necessary, use the text box to give further details or clarification about any of the information provided.

>>> A National Conservation Action Plan for Marine Turtles (2023-2030) is in place, and the NCW is using the official channels and social media to increase the awareness of the community about the importance of conserving wildlife and how to sustainably use and handle them.

- 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.
- >>> Projects aimed at preserving the environment began at the beginning of 2024, and this development came after government support with funds. The National Center for Wildlife attracts experts and specialized cadres, and these projects aim to preserve marine organisms and habitats.

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

#### 1.1 BEST PRACTICE APPROACHES TO MINMIZING THREATS

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.

1.1.1. 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 secretarat at iosea@un.org

Title of best practice protocol or approach	What does this approach/ protocol help to achieve	Has the effectiveness of this approach been evaluated? What was the result?	References and links
https://www.mewa.gov.sa/en/l nformationCenter/DocsCenter/ RulesLibrary/Docs/Executive% 20Regulation%20for%20Sustai nable%20Management%20of% 20the%20Marine%20and%20C oastal%20Environment.pdf	Change for the better	- It is necessary to employ more than 150 marine monitor. -Awareness and community partnership	Executive regulations for the management of the marine and coastal environment in the Kingdom, based on the environment system issued by Royal Decree No. (M / 165) dated 11/19/1441 AH*
Work is now underway to impose a law requiring fishermen to do so.	Eight workshops will be launched for fishermen during the year 2024. The first workshop has been implemented, and during the completion of the installation of the devices, comparisons will be made.	A mandatory declaration for fishermen is now in progress	Reducing the impacts of bycatch on sea turtles in the Arabian Gulf and Red Sea (TEDs)

#### 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:

**☑** UNKNOWN

#### Please provide the information below:

Number of vessels:

>>> 10113

Boat size (range or average):

>>> >6m (693),6-9m (7948),9-12m (561),12-15m(139),15-20m (760),<20m (12).

Geographic distribution:

>>> All fishermen's anchorages located on the coast of Saudi Arabia,

If known, turtle species affected:

>>> The species mortality record for Chelonia mydas + Eretmochelys imbricata is (47) unexplained turtle deaths, possibly due to fishing nets, from 2019 to 2024.

Number of bycaught turtles per year:

>>> : A number of (13) dead turtles were recorded inside the fishing nets, and traces of fishing nets were also found on them.

#### 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)

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

>>>

https://www.mewa.gov.sa/en/InformationCenter/DocsCenter/RulesLibrary/Docs/Regulation%20of%20Fishing,% 20Investment%20and%20Preservation%20of%20Live%20Aquatic%20Resources%20within%20Territorial%20 Waters.pdf

### 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.

- ☑ Inspections (i.e. at sea, in port, at landing sites)
- ☑ Training programmes / workshops to train fishers on the use of bycatch reduction methods
- ☑ Informative videos, brochures, printed guidelines etc.

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

The measure is mandatory under the following regulation:

>>> Regulation of Fishing, Investment and Preservation of Live Aguatic Resources within Territorial Waters.

The measure is voluntary:

>>> Is mandatory.

Details/future plans:

>>> Under the jurisdiction of other government institutions.

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

Details/future plans:

>>> Project reducing the impacts of bycatch on sea turtles in the Arabian Gulf and Red Sea (TEDs) (2024). Eight workshops will be launched for fishermen during the year 2024. The first workshop has been implemented, and during the completion of the installation of the devices, comparisons will be made.

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

Details/future plans:

>>> A booklet has been printed in three languages and will be distributed to fishermen. Awareness boards will be installed in fishing harbours.

#### 2) Pelagic trawling

#### a) Fishing effort:

☑ UNKNOWN

#### 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)

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

>>> Regulation of Fishing, Investment and Preservation of Live Aquatic Resources within Territorial Waters.

#### 3) Set nets

#### a) Fishing effort:

☑ UNKNOWN

#### 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)

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

>>> Regulation of Fishing, Investment and Preservation of Live Aquatic Resources within Territorial Waters.

#### 4) Driftnet

#### a) Fishing effort

☑ UNKNOWN

#### 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)

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

>>> Regulation of Fishing, Investment and Preservation of Live Aquatic Resources within Territorial Waters.

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

#### a) Fishing effort

UNKNOWN

#### 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)
- ☑ Use of eco-friendly 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:

>>> Regulation of Fishing, Investment and Preservation of Live Aquatic Resources within Territorial Waters.

#### 6) longline

#### a) Fishing effort

**⋈** NONE

#### 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)

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

>>> Regulation of Fishing, Investment and Preservation of Live Aquatic Resources within Territorial Waters.

#### 7) Artisanal fishing gear

Type and description:

>>> Dismounted fishing, rod and line fishing.

#### a) Fishing effort

☑ UNKNOWN

#### Please provide any available information below:

Number of trips per year:

>>> The whole year.

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

>>> handline.

Geographic distribution:

>>> All coasts are outside sensitive vital facilities.

Number of bycaught turtles per year:

>>> No report recorded.

#### 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 help marine turtles avoid or escape the nets

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

>>> Regulation of Fishing, Investment and Preservation of Live Aquatic Resources within Territorial Waters.

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

UNSURE

## 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:

>>> The use of this type of fishing net is prohibited.

References and links:

>>> https://www.mewa.gov.sa/en/InformationCenter/DocsCenter/RulesLibrary/Pages/default.aspx#?

## 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?

 $\ensuremath{\square}$  NO

- a) Please indicate number of vessels per year (0, 1-10, 11-50, 51-100, 101-500, more than 500) >>> These are under the management of the Ministry of Environment, Water and Agricultural Coordination Data
- with the Ministry of Interior, and all of them are recorded in the electronic control program "Zawl".
- b) Countries of origin of IUU fishing, if known?

**Details**:

- >>> UNKNOWN. Under the jurisdiction of other government institutions.
- c) Is there enforcement in place to deter these practices? Please indicate area covered and challenges.

Details:

>>> Fishing is not permitted within Saudi territorial waters for fishermen from neighboring countries, and this is under complete control by the Saudi Coast Guard.

#### 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.

☑ NO

References and links:

>>> This is prohibited and strict penalties apply.

https://www.mewa.gov.sa/en/InformationCenter/DocsCenter/RulesLibrary/Docs/Executive%20Regulation%20f or%20Sustainable%20Management%20of%20the%20Marine%20and%20Coastal%20Environment.pdf https://www.mewa.gov.sa/en/InformationCenter/DocsCenter/RulesLibrary/Docs/Executive%20Regulation%20f or%20the%20Protected%20Areas.pdf

**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

☑ NO

b) Egg consumption

√ NC

c) Fat and oil consumption

☑ NO

d) Traditional medicine

 $\ensuremath{\square}$  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?

Please list the most common types of consumption:

>>> This is prohibited and strict penalties apply.

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

If more rows are required, please contact the secretarat at iosea@un.org

Legislation title	Legis latio n date	Is traditional use allowed under this legislation?	Is the legislati on enforce d?	What are the challenges?
Lack of sufficient number of surveillance guards.	yes	Restricted by controls.	19/11/14 41 Hijri	For Sustainable Management of the Marine and Coastal Environment.
Lack of sufficient number of surveillance guards.	yes	Hunting of species stipulated in the regulation is generally prohibited, and hunting is permitted in accordance with applicable regulations and protected areas	19/11/14 41 Hijri	For the Protected Areas For the Environmental Law issued by the Royal Decree.
Lack of sufficient number of surveillance guards.	yes	Hunting of all endangered species is prohibited, and hunting of other species is permitted with electronic permits according to the regulation, the permitted numbers, and the season.	19/11/14 41 Hijri	For Hunting Terrestrial Wildlife Species For the Environmental Law issued by the Royal Decree.

### 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 guestion 1.3.4 and 1.3.5.

References and links:

>>>

https://www.mewa.gov.sa/en/InformationCenter/DocsCenter/RulesLibrary/Docs/Executive%20Regulation%20for%20Sustainable%20Management%20of%20the%20Marine%20and%20Coastal%20Environment.pdf

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

Details:

>>> No reports were recorded from the marine guards in NCW.

### 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:

>>> The Ministry of Environment, Water and Agriculture supports traditional fishermen with 8-metre-long twin-

engined boats.

Giant projects and employment in them.

Increasing tourism activities and providing profitable income for them.

Employing local community members within the reserves to work as security guards with a monthly salary.

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

☑ YES

If yes, please indicate which type:

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

#### Details:

>>> Tourism in wildlife Protected and wildlife breeding centers has begun, and will be worked on during the year 2024 for the marine Protected, under the supervision of NCW.

### 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:

>>> It is currently under study and is expected to be approved during 2024.

### 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:

>>> There are employees at land, sea and air ports to prevent any export or import of them in accordance with the "CITES" agreement, and no violations of trade in sea turtles have been recorded.

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

References and links:

>>> https://trade.cites.org/#

## 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?

 $\ensuremath{\square}$  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): >>> As for the sites mentioned above, there are guards who are monitored on a daily basis, and their working hours are intensified during the season in which females go out to lay eggs. They record paper reports on the progress of work, and for four years no violations have been recorded regarding sea turtles, their nests, or their eggs.

References and links:

>>> nothing.

#### b) Nesting beach protection (patrolling)

☑ YES

Implemented at the sites described in question 0.2 (name the sites, where this applies): >>> The answer is in paragraph (a).

#### c) Predator control

☑ NO

Implemented at the sites described in question 0.2 (name the sites, where this applies):

>>> Natural beach predators, and in some seasons with increased rainfall, there may be an increase in the number of Indian rats, especially on Karan Island and Jana Island in the Arabian Gulf.

References and links:

>>> Views only.

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

☑ NC

#### e) Vehicle access restrictions

✓ YES

Implemented at the sites described in question 0.2 (name the sites, where this applies): >>> This is prohibited, and there is an information sign and guards present on the site.

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

☑ YES

Details:

>>> The work was completed in 2021 and now during this year 2024 it has been repeated and the debris removed from three sites. After completion, the consultant contracted with the National Council for Women will develop a plan to address the recurrence of the accumulation of debris.

The weight of the debris weighs 35 tons in 2021.

Implemented at the sites described in question 0.2 (name the sites, where this applies): >>> Yes, new sites will be added.

#### References and links:

- >>> https://x.com/ncw\_center/status/1374663170866970630?s=48&t=c\_0VbAetL3EKTfox5zxwsQ.
- 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): >>> Projects have been put forward for competition for the previously mentioned sites, and the sources of light pollution will be identified for the year 2024.

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:

>>> There is only one marine protected areas, which is Farasan Island.

References and links:

>>> https://www.ncw.gov.sa/en/

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

Details:

>>> Through social and visual communication programs, raise awareness and honor any volunteer who protects and rescues stranded sea turtles.

References and links:

>>> https://twitter.com/NCW center.

## 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. $\square$ YES

Details:

>>> During guarding operations, observations are recorded in the report, and after the completion of the sea turtle habitat rehabilitation project for the year 2024, a detailed report will be submitted by the company's consultant.

### 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:

>>> Article (63)

It is forbidden to dispose of laboratories, factories waste, or sewage water into the sea. In addition, the chemical and petroleum materials, ship oils, or any liquids or solutions that harm the life of living aquatic, which leads to their mortality or displacing them from the Kingdom coastal water.

Article (69)

Fishing is prohibited by equipment of genocide, electric shock, explosives, chemicals and toxic materials.

References and links:

>>>

https://www.mewa.gov.sa/en/InformationCenter/DocsCenter/RulesLibrary/Docs/Regulation%20of%20Fishing,%20Investment%20and%20Preservation%20of%20Live%20Aquatic%20Resources%20within%20Territorial%20Waters.pdf

#### 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).

#### Details/future plans:

>>> As part of the decade's trip to explore the Red Sea and then launch the marine habitat assessment project in the waters of the Kingdom of Saudi Arabia, which will be completed during the year 2024, the damaged and diseased areas required to be rehabilitated will be identified, and currently there is a community partnership with national institutions working in habitat rehabilitation.

#### References and links:

>>> https://rsde.ncw.gov.sa/

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

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

#### Details/future plans:

>>> NCVC has many initiatives, and mangroves fall within these initiatives.

#### References and links:

>>> https://ncvc.gov.sa/en/Pages/default.aspx

### 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:

>>> As part of the decade's trip to explore the Red Sea and then launch the marine habitat assessment project in the waters of the Kingdom of Saudi Arabia, which will be completed during the year 2024, the damaged and diseased areas required to be rehabilitated will be identified, and currently there is a community partnership with national institutions working in habitat rehabilitation.

#### References and links:

>>> https://rsde.ncw.gov.sa/

# 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)	Specie s genetic stock	Start year	Duration of the monitoring programme	Nature of monito ring	Population trend	Is this a protecte d area?
No	decreas e	Recording numbers, morphological measurements, and the area is monitored	It is monitored during the seasons by guards of Protected.	1991	Chelonia mydas	Ras Baridi
Yes	UNKNO WN	The area is monitored.	It is monitored during the seasons by guards of Protected.	2009	Eretmochelys imbricata	Farasan Islands Protected
No	decreas e	Recording numbers, morphological measurements, and the area is monitored	It is monitored during the seasons by guards of Protected.	1991	Chelonia mydas + Eretmochelys imbricata	Karan Island
No	decreas e	Recording numbers, morphological measurements, and the area is monitored	It is monitored during the seasons by guards of Protected.	1991	Chelonia mydas + Eretmochelys imbricata	Jana Island

### **3.1.2** Has you country undertaken an evaluation of its marine turtle monitoring programmes? ☐ YES

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

#### Details:

>>> Comparisons are made from annual monitoring reports.

#### References and links:

- >>> The evaluation was done according to field reports, comparing them to previous seasons, as well as using studies conducted in the region, as well as research and articles from King Abdullah University of Science and Technology.
- 1- Al-Mansi, A. M., Sambas, A. Z., Abukaboos, B. A., Al Zahrani, A. H., Abdulaziz, A. S., Almasabi, A. A., ... & Miller, J. (2021). Satellite tracking of post-nesting green sea turtles (chelonia mydas) From Ras Baridi, Red Sea.

Frontiers in Marine Science, 8, 758592.

- 2- MONTAGNA, M., ALATAWI, A., ALGOHANE, A., ALTURKI, S., BARRIOSGARRIDO, H., MANCINI, A., ... & RAMALHO, R. O. COMBINED PHOTO IDENTIFICATION AND FLIPPER TAGGING OF GREEN TURTLES IDENTIFY CONNECTIONS BETWEEN EGYPTIAN RED SEA FEEDING AREAS AND A KEY NESTING AREA IN SAUDI ARABIA. 3- Eckert, K. L., Bjorndal, K. A., Abreu-Grobois, F. A., & Donnelly, M. (1999). Research and management techniques for the conservation of sea turtles.
- 4- Tanabe, L. K., Ellis, J., Elsadek, I., & Berumen, M. L. (2020). Potential feminization of Red Sea turtle hatchlings as indicated by in situ sand temperature profiles. Conservation Science and Practice, 2(10), e266. 5- Gladstone, W., Krupp, F., & Younis, M. (2003). Development and management of a network of marine protected areas in the Red Sea and Gulf of Aden region. Ocean & coastal management, 46(8), 741-761. 6- Shimada, T., Meekan, M. G., Baldwin, R., Al-Suwailem, A. M., Clarke, C., Santillan, A. S., & Duarte, C. M. (2021). Distribution and temporal trends in the abundance of nesting sea turtles in the Red Sea. Biological Conservation, 261, 109235.
- 7- Rouphael, T., Abdulla, A., Attum, O., Marshall, N., & Ghazali, U. (2013). Do marine protected areas in the Red Sea afford protection to dugongs and sea turtles?. Journal of Biodiversity and Endangered Species, 1, 1-6. 8- Barale, V. (2007). Marine and coastal features of the Red Sea. European Commission, EUR, 23091, 56. 9- Rasul, N. M., Stewart, I. C., Vine, P., & Nawab, Z. A. (2019). Introduction to oceanographic and biological aspects of the Red Sea (pp. 1-9). Springer International Publishing.
- 10- Tanabe, L. K., Carvalho, S., Dasari, V., Nasif, A., O'Toole, K. A., & Berumen, M. L. (2022). Potential effects of heavy metal pollution from a cement factory near Saudi Arabia's largest green turtle rookery. Environmental Monitoring and Assessment, 194(6), 450.
- 11- Chalastani, V. I., Manetos, P., Al-Suwailem, A. M., Hale, J. A., Vijayan, A. P., Pagano, J., ... & Duarte, C. M. (2020). Reconciling tourism development and conservation outcomes through marine spatial planning for a Saudi Giga-Project in the Red Sea (The Red Sea Project, Vision 2030). Frontiers in Marine Science, 7, 168. 12- Pilcher, N. J., & Al-Merghani, M. (2000). Reproductive biology of green turtles at Ras Baridi, Saudi Arabia. Herpetological Review, 31(3), 142.
- 13- Tanabe, L. K. (2018). Sand temperature profiles at turtle nesting sites in the Red Sea: implications for hatchling sex ratios (Doctoral dissertation).
- 14- Abdulla, A., El Shaffai, A., & Rouphael, A. (2011). Field guide to seagrasses of the Red Sea.
- 15- Al-Mansi, A. M. (2016). Status and ecology of sirenian, cetaceans and marine turtles in the farasan bank, red sea, Saudi Arabia. Journal of King Abdulaziz University, 26(1), 1.
- 16- Gladstone, W. (2000). The ecological and social basis for management of a Red Sea marine-protected area. Ocean & Coastal Management, 43(12), 1015-1032.
- 17- Pilcher, N. J., Rodriguez-Zarate, C. J., Antonopoulou, M. A., Mateos-Molina, D., Das, H. S., & Bugla, I. A. (2020). Combining laparoscopy and satellite tracking: Successful round-trip tracking of female green turtles from feeding areas to nesting grounds and back. Global Ecology and Conservation, 23, e01169.
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- 21- Maneja, R. H., Miller, J. D., Li, W., El-Askary, H., Flandez, A. V. B., Dagoy, J. J., ... & Qurban, M. A. (2020). Long-term NDVI and recent vegetation cover profiles of major offshore island nesting sites of sea turtles in Saudi waters of the northern Arabian Gulf. Ecological Indicators. 117, 106612.
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- 23- Maneja, R. H., Miller, J. D., Li, W., Thomas, R., El-Askary, H., Perera, S., ... & Struppa, D. (2021). Multidecadal analysis of beach loss at the major offshore sea turtle nesting islands in the northern Arabian Gulf. Ecological Indicators, 121, 107146.
- 24- Scott, K. (2020). Nesting site preference of marine turtles in the central Red Sea (Doctoral dissertation). 25- Wallace, B. P., Stacy, B. A., Cuevas, E., Holyoake, C., Lara, P. H., Marcondes, A. C. J., ... & Shigenaka, G. (2020). Oil spills and sea turtles: documented effects and considerations for response and assessment efforts. Endangered Species Research, 41, 17-37.
- 26- Mobaraki, A., RastegarPouyani, E., Kami, H. G., & Khorasani, N. (2020). Population study of foraging Green sea turtles (Chelonia mydas) in the Northern Persian Gulf and Oman Sea, Iran. Regional Studies in Marine Science, 39, 101433.
- 27- Robinson, D. P., Hyland, K., Beukes, G., Vettan, A., Mabadikate, A., Jabado, R. W., ... & Baverstock, W. (2021). Satellite tracking of rehabilitated sea turtles suggests a high rate of short-term survival following release. Plos one, 16(2), e0246241.
- 28- Robinson, D. P., Jabado, R. W., Rohner, C. A., Pierce, S. J., Hyland, K. P., & Baverstock, W. R. (2017). Satellite tagging of rehabilitated green sea turtles Chelonia mydas from the United Arab Emirates, including the longest tracked journey for the species. PLoS One, 12(9), e0184286.

29- Pilcher, N. J., Perry, L., Antonopoulou, M., Abdel-Moati, M. A., Al Abdessalaam, T. Z., Albeldawi, M., ... & Willson, A. (2014). Short-term behavioural responses to thermal stress by hawksbill turtles in the Arabian region. Journal of Experimental Marine Biology and Ecology, 457, 190-198.

30- Ficetola, G. F. (2007). The influence of beach features on nesting of the hawksbill turtle Eretmochelys imbricata in the Arabian Gulf. Oryx, 41(3), 402-405.

31- Abdulqader, E. A., Miller, J., Al-Mansi, A., Al-Abdulkader, K., Fita, N., Al-Nadhiri, H., & Rabaoui, L. (2017). Turtles and other marine megafauna bycatch in artisanal fisheries in the Saudi waters of the Arabian Gulf. Fisheries Research, 196, 75-84.

### 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):

>>> Chelonia mydas + Eretmochelys imbricata. Start in 1986, Continuous work that may be interrupted for a few years due to lack of resources.

#### b) Satellite tracking

Yes

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

>>> Chelonia mydas + Eretmochelys imbricata. 56 tracking devices.

References and links:

>>> Links are mentioned in 3.1.2

#### c) Genetic studies

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

>>> Chelonia mydas + Eretmochelys imbricata. The project was announced for implementation in 2024.

### 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:

>>> In red sea.

References and links:

>>> DOI:10.3389/fmars.2021.758592

### 3.1.5 Is the use of traditional ecologial knowledge in research being promoted? $\square$ 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):

>>> Project reducing the impacts of bycatch on sea turtles in the Arabian Gulf and Red Sea (TEDs) (2024).

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

Details (e.g. type of fishery and gear used, mitigation method assessed, result): >>> The results of this will be in 2025 after the TEDs project and comparisons are made.

References and links:

>>> Nothing.

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

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

>>> Some of the turtles were treated for floating syndrome and were transported to the aquarium center and re-released after receiving treatment. There was no study on the diseases.

References and links:

>>> Nothing.

#### d) Genetic studies

Details (species and genetic stock):

>>> It will be in 2024 for three years for green and hawksbill turtles.

References and links:

>>> Nothing.

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

Details (aim of study, methods, results):

>>> Nothing.

#### 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): >>> In 2026, the results of current projects evaluating conservation measures will be available.

References and links:

>>> Nothing.

#### 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? ☑ YES

Please specify:

If more rows are required, please contact the secretarat at iosea@un.org

Regional or sub-regional action plan	Identified research and monitoring needs	Links
https://persga.org/	https://persga.org/programs/regional- monitoring/	Regional Environmental Monitoring Programe.

- 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.)

. ☑ NO

b) Genetic characterization

☑ NO

c) Migratory and dispersal routes

☑ YES

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

>>> Combined photo identification and flipper tagging of Green Turtles identify connections between Egyptian Red Sea feeding areas and a key nesting area in Saudi Arabia.

References and links:

>>>

https://www.researchgate.net/publication/376033086\_Combined\_photo\_identification\_and\_flipper\_tagging\_of\_ Green\_Turtles\_identify\_connections\_between\_Egyptian\_Red\_Sea\_feeding\_areas\_and\_a\_key\_nesting\_area\_in\_S audi\_Arabia

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.

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

**☑** UNSURE

#### 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? ☑ UNSURE

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

☑ NOT APPLICABLE

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

>>> 2016 - THE CONSERVATION STATUS AND DISTRIBUTION OF THE MAMMALS OF THE ARABIAN PENINSULA. https://portals.iucn.org/library/node/51297

#### 3.4.3 How often does your country share information on marine turtle populations of regional

#### interest with other IOSEA Signatories?

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?

✓ NO

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

#### 4.1 PUBLIC EDUCATION AND INFORMATION PROGRAMMES

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:

>>> The National Center for Wildlife Development grants study and research permits to all educational institutions or bodies for any project that aims to preserve and protect sea turtles and their nesting areas, and includes all areas where sea turtles are found in the Kingdom of Saudi Arabia.

### 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 information signs were installed in the Ras Baridi area, which is considered the largest nesting area in the Kingdom of Saudi Arabia and can be reached by car. There are also media programs on the platforms of the National Council for Wildlife to raise awareness of the importance of sea turtles.

References and links:

>>> https://www.ncw.gov.sa/

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

- ☑ Local/Fishing communities
- ☑ Indigenous groups
- ☑ Media

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

☑ NO

#### 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?

- ☑ Students
- ☑ Military, Navy, Police
- ☑ Scientists
- ☑ Enforcement personnel

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

#### Details/future plans:

>>> The National Center for Wildlife Development grants study and research permits to all educational institutions or bodies for any project that aims to preserve and protect sea turtles and their nesting areas, and includes all areas where sea turtles are found in the Kingdom of Saudi Arabia.

References and links:

>>> eservices.ncw.gov.sa/ServiceCatalog

### 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?

☑ N/A

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:

>>> Involving government and private institutions in community participation within the framework of the marine environments rehabilitation initiative.

## 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
- ☑ IMPORTANT
- d) Illegal fishing in EEZ
- **☑** ESSENTIAL
- e) Incidental capture by foreign fleets in EEZ
- **☑** ESSENTIAL
- f) Enforcement/patrolling of EEZ
- ☑ NOT AT ALL
- g) Harvest exploitation of turtles and eggs

 $\ \square$  LIMITED

h) Illegal trade in turtle parts and products

☑ ESSENTIAL

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

☑ ESSENTIAL

j) Marine pollution, including oil spills and marine debris

☑ IMPORTANT

- k) Training / capacity-building
- ☑ IMPORTANT
- I) Alternative livelihood development

☑ NOT AT ALL

m) Characterisation of turtle populations/genetic stocks

☑ LIMITED

n) Identification of migration routes

☑ LIMITED

o) Tagging / satellite tracking

☑ LIMITED

#### p) Habitat studies

☑ IMPORTANT

#### q) Genetic studies

☑ IMPORTANT

#### 5.2 COOPERATION AND INFORMATION EXCHANGE

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

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

#### Details:

>>> The Regional Organization for the Conservation of the Environment of the Red Sea & Gulf of Aden (PERSGA).

References and links:

>>> https://persga.org/about-us/

### 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 secretarat at iosea@un.org

Name of the regional/sub-regional action plan (include web links to plan if available)	Species covered	Geogr aphic covera ge	Obj ecti ves	Threats address ed by the plan
General population growth in the coastal zone has led to localized habitat destruction and modification and the release of pollutants. Stocks of invertebrates, fishes, and sharks (and their associated ecosystems) are affected by over-fishing. The ability of many countries in the region to address issues will be constrained by limitations in both technical expertise and the required experience in management.	-TD provide for the conservation, protection and restoration of the health and integrity of the ecosystems and biological diversity in the Red Sea and Gulf of AdenTD safeguard the threatened species, the critical habitats, sites of particular importance, as well as representative types of coastal and marine ecosystems, their biodiversity and their sustainable use and management, to ensure long-term viability and diversityTD adopt strategies, plans and programs for the conservation of biodiversity and the sustainable use and management of marine and coastal biological resourcesTD realize tangible improvements in human and community wellbeing for communities adjacent to marine and coastal areas.	Red Sea	AII	Marine Biodiversi ty Program.

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

Details/future plans:

>>> Providing the largest regional support to the Regional Authority for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA) in implementing its programs aimed at enhancing environmental conservation, sustainability and regional cooperation.

References and links:

>>> https://persga.org/about-us/

#### 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**:

>>> Training and development as well as experienced marine veterinarians.

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:

>>> Workshops on defining and installing sea turtle exclusion devices - The effect of light pollution on sea turtles - Threats to which sea turtles are exposed and an introduction to their life, reproduction and way of life.

References and links:

>>> https://x.com/ncw\_center?s=11&t=c\_0VbAetL3EKTfox5zxwsQ https://www.ncw.gov.sa/en/seas

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:

>>> Volunteers, Fishermen's Association, And community partnership with for-profit and non-profit sectors.

#### **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:

>>> National Conservation Action Plan for Marine Turtles (2023-2030)

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:

>>> Cooperating with the Saudi Coast Guard regarding wildlife violations and deaths, environmental requirements for large projects, creating a database of deaths and strandings, collecting local and regional scientific papers, and expanding marine and coastal reserves.

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:

» Yes.

STRATEGIC ACTION PLAN - MARINE & COASTAL DIVISION

"A plan to safeguard the marine biodiversity and resources of the waters of the Red Sea and Arabian Gulf under jurisdiction of the Kingdom of Saudi Arabia,

for the benefit of local and distant communities, in perpetuity"

### 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).

- >>> 1- Bottom trawl fishing nets.
- 2- Habitat loss.
- 3- light pollution.
- 4- boat hitting.
- 5- Residential & commercial development.
- 6- Pollution.

### 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:

>>> In 1442/2020, the Executive Regulation for Sustainable Management of the Marine and Coastal Environment was passed, which prohibits, amongst others, the hunting, extracting, or collecting endangered wildlife species in the marine and coastal environment, including their products and derivatives; collecting, transporting, destroying, or damaging the eggs, nests, or habitats of wildlife species in the marine and coastal environment; and failing to release or return endangered or prohibited wildlife species to the sea in case of bycatch. The penalties for the hunting and/or extraction of all five species of marine turtles ranges from SAR 10,000 to SAR 100,000 to be estimated by the NCW, according to the age, size, and type of the species. Saudi Arabia also issued an Environmental Law (1443/2021), which, in Chapter 4, prohibits any activities harming the marine and coastal environment and its living and non-living components, and, in Chapter 5, prohibits the trading in any wildlife species, or their products or derivatives, whether locally or through import or export; as well as killing, selling, transport, possession, etc., amongst others. The revised law increased penalties and expanded the range for prohibitions. The Law, approved by the Royal Decree No. M/165, governs the work of the Environmental Centers (the NCW, the National Center for Environmental Compliance, and the National Center for Vegetation Cover). Regulations relevant to each Environmental Center has been issued, identifying the task of each center. Turtles are completely protected, except if a prior request is reviewed and approved by the NCW.

# 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? ☑ YES

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

#### Details

>>> Environmental Law (1443/2021).

#### References and links:

- >>> https://www.mewa.gov.sa/en/InformationCenter/DocsCenter/RulesLibrary/Docs/Environmental%20Law.pdf
- b) Which measures are in place to ensure compliance with this regulation?

#### References and links:

>>> Statements made by the regime in the media and defamation of violators in the official account of the National Center for Wildlife Development, as well as joint cooperation with the Ministry of Interior to prevent violators, arrest them, and apply penalties to them.

 $https://www.moi.gov.sa/wps/portal/Home/sectors/environmentalsecurity/!ut/p/z1/04_iUIDg4tKPAFJABjKBwtGPykssy0xPLMnMz0vM0Y_Qj4wyizc0dLHwMHI38DFwNXU2MPN3NzTzd7M0dDc31PfSj8KvIDixSL8g01ARAOyBL8k!/$ 

## 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.

### 6.1.2 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.

### 6.2.2 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)
>>> National.

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?

☑ UNKNOWN

#### 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		
Within the scope of its work and objectives is the protection and sustainability of wildlife in the Red Sea and the Arabian Gulf, and it is the national representative of wildlife agreements. responsible for implementing environmental regulations and executive regulations related to wildlife in all regions of Saudi Arabia.	National Centre for Wildlife (NCW).		
oversee the regulation, protection, development, and sustainability of coral reefs and turtles, as well as their nesting sites, in the Red Sea.	General Organization for Conservation of Coral Reefs and Turtles in the Red Sea (SHAMS).		
It is protected and preserved within its geographical borders, and environmental law is implemented by the National Council for Wildlife.	Royal protected.		

### 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:

>>> Executive Regulation for Sustainable Management of the Marine and Coastal Environment.

#### References and links:

>>>

https://www.mewa.gov.sa/en/InformationCenter/DocsCenter/RulesLibrary/Docs/Executive % 20 Regulation % 20 for % 20 Sustainable % 20 Management % 20 of % 20 the % 20 Marine % 20 and % 20 Coastal % 20 Environment. pdf

#### **OTHER REMARKS**

Please provide any comments/suggestions to improve the present reporting format. >>> Nothing.

Feel free to include additional information not covered above:

>>> Nothing.