

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:

>>> Department of Marine and Coastal Resources, Ministry of Natural Resources and Environment, Thailand

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

- >>> Department of National Parks, Wildlife and Plant Conservation
- Kasetsart University
- Chulalongkorn University
- Royal Thai Navy

Memorandum in effect in Signatory State since (dd/mm/yyyy): >>> 12 May 2004

This report was last modified: (dd/mm/yyyy): >>> 30 September 2019

Designated Focal Point (and full contact details):
>>> Miss Chalathip Junchompoo, Fishery Biologist (Senior Professional Level)

Marine and Coastal Resources Research Center (Upper Gulf of Thailand)
120 Moo 6, Bangyaprak, Mueang, Samut Sakhon 74000, Thailand
Mobile: +66(0) 65951 9719 Email: Junchompoo@yahoo.com

Other relevant contacts:

>>> Miss Watchara Sakornwimon Veterinarian (Senior Professional Level)
Marine and Coastal Resources Research Center (Central Gulf of Thailand)
9 Moo 7, Na Thung, Mueang, Chumphon, 86000 Thailand
Mobile: +66(0) 81685 7329 Email: watchavet70@gmail.com

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.

Geograph ic area	Type of habitat (nesting, feeding developmental)?	Species, genetic stock	Number of egg clutches per year	Population trend (increase, decrease, stable, unknown)
increase	156	Eretmochely imbricata	nesting, feeding	GOT, Andaman sea
increase	208	Chelonia mydas	nesting, feeding	GOT, Andaman sea
unknown	2	Lepidochelys olivacea	nesting, feeding	Andaman sea
unknown	9	Dermochelys coriacea	nesting	Andaman sea

Name of database:

>>> -

d) Does your country have an IOSEA Network site?

☑ YES

0.2 Site-specific information

Provide sources of information supporting the above responses, include reports (governmental, 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

	ed for at least f	ive years using	ined as a marine to g a standardized se								
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:											
>>> Environmental prot	cection area , Navy b	oase									
e) When did marin carried out? >>> Marine turtle monit		_	nis location (year) ing 1 time/year.	and how oft	en is monitoring						
species by inserticorresponding to; d: 501 - 1,000 rests; h: more to "decreasing" or "	ng, in the appro the following so nests; e: 1,001 than 100,000 ne 'stable". If infor ecies are preser	priate boxes, or ale: a: 1 - 10 - 5,000 nests; sts. If trend in mation on pop	mated number of tone of the letters nests; b: 11 - 10; f: 5,001 - 10,000 formation is available ulation and trend ton by inserting "	'a'througl 00 nests; c) nests; g ble, add "in is not availa	h ' h ', : 101 - 500 nests : 10,001 - 100,000 creasing", ble, simply						
Species present at this location? Number of clutches per year increasing, stable) Trend (decreasing, Monitored since (year) How often is this species monitored?											
Flatback (Natator depressus)											
Olive ridley (Lepidochelys olivacea)											
Hawksbill (Eretmochelys	2 months/year	1979	increasing		Yes						

decreasing

239

Yes

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

Name of the site: >>> Kharm Island

State/province:

>>> 8,400 meters

Length:

imbricata)

caretta)

☑ 5-10 km2

(Dermochelys coriacea)

Green (Chelonia mydas)

Loggerhead (Caretta

2 months/year

>>> Chonburi Province

>>> 12.694642 ,100.789681

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

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

1979

links:

>>> Sea turtle habitat areas, it is a coral reef area and sea grass base.

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

Other threat:

>>> https://km.dmcr.go.th/c_6/d_2692

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
- $\ensuremath{\square}$ Training/ capacity building for people from coastal communities

Please provide details:

>>> -

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

>>> -

- 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.
- >>> Sea turtle population and nesting status at Kharm Island

You have attached the following documents to this answer.

Sea turtle population and nesting status.pdf - Sea turtle population and nestingstatus

Sites Site 2

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

Name of the site:

>>> Taimuang

State/province:

>>> Phangnga

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 8.375745; 98.254077

Length:

>>> 13.6 kilometers

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?

 $\ \ \square$ NO

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

☑ YES

Details:

- >>> Protected area by National Park, Khao Lampi-Hat Thai Mueang National Park.
- e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?
- >>> Time for marine turtle monitoring start at Thaimuang is not sure, but for a long time by people in this location. And after establishment of Khao Lampi-Hat Thai Mueang National Park, there are monitoring in every year.
- 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)		20 years ago	decreasing	1-10	yes
Hawksbill (Eretmochelys imbricata)					
Leatherback (Dermochelys coriacea)	Everyday in sea turtle nesting		decreasing	1-10	Yes
Green (Chelonia mydas)		20 years ago	decreasing	1-10	yes
Loggerhead (Caretta caretta)					

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

☑ more than 100 km2

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

>>> The area is managed by Khao Lampi-Hat Thai Mueang National Park

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)						
Loggerhead (Caretta caretta)						

	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			Z		
Sand mining / removal				V	
Vehicles		7			

Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		Z		
Artificial lighting (on land or near shore)		☑		
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)		Ø		
Inshore oil pollution		7		
Industrial effluent			Ø	
Marine debris (e.g. plastics at sea, flotsam)	Ø			
Boat strikes				
Incidental capture in coastal fisheries	V			
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)			V	

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 people from coastal communities
- ☑ Training/capacity building for community-based activities
- ☑ Training/capacity building for onboard observer programmes
- ☑ Training/capacity building for project development, fundraising, execution, evaluation

Sites Site 3

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

Name of the site:

>>> Similan

State/province:

>>> Phangnga

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 8.481764; 97.64995

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?

□, NC

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

 $\ensuremath{\square}$ YES

Details:

- >>> Similan site is the protected area by Similan National Park.
- Similan Area" is currently in the process of being nominated for inclusion in the tentative list of world heritage sites.

You have attached the following documents to this answer.

S 23805964.jpg

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

>>> It start at this location in 1982, and there are monitoring every year.

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)	1 time/year	1982	stable	80-120	Yes
Loggerhead (Caretta caretta)					

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)						
Loggerhead (Caretta caretta)						

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)				7	
Natural threats, disease, predation of nests/nesting females or natural predation at sea			Ø		
Sand mining / removal			7		
Vehicles				Ø	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			Z		
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)			V		
Boat strikes					
Incidental capture in coastal fisheries				V	
Egg collection (i.e. direct harvest by humans)				7	
Direct harvest of animals in coastal waters at or near the site				Ø	
Exploitation of nesting females (i.e. direct harvest on land)				Ø	

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 people from coastal communities
- ☑ Training/capacity building for community-based activities
- $\ \square$ Training/capacity building for project development, fundraising, execution, evaluation
- ☑ Scientific equipment and/or technical support

Sites Site 4

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

Name of the site: >>> Prathong

State/province:

>>> Phangnga

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 9.060317; 98.25042

Length:

>>> 15.4 kilometers

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?
- >>> There are monitoring every year.
- 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)	2 time/year		stable	1-5	No
Green (Chelonia mydas)	2 time/year		stable	1-5	No
Loggerhead (Caretta caretta)					

- 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.

		_	Trend (decreasing, increasing, stable)		How often is this species monitored?
--	--	---	--	--	--------------------------------------

Flatback (Natator depressus)			
Olive ridley (Lepidochelys olivacea)			
Hawksbill (Eretmochelys imbricata)			
Leatherback (Dermochelys coriacea)			
Green (Chelonia mydas)			
Loggerhead (Caretta caretta)			

	Unknow	Non	Low (rare	Mediu	High (common
	n	e	event)	m	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			7		
Vehicles				Ø	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			Ø		
Artificial lighting (on land or near shore)				7	
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)			☑		
Boat strikes					
Incidental capture in coastal fisheries			☑		
Egg collection (i.e. direct harvest by humans)				7	
Direct harvest of animals in coastal waters at or near the site				Ø	
Exploitation of nesting females (i.e. direct harvest on land)				Ø	

- 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 people from coastal communities
- ☑ Training/capacity building for community-based activities
- ☑ Training/capacity building for project development, fundraising, execution, evaluation

Sites Site 5

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

Name of the site: >>> Mai khao beach

State/province:

>>> Phuket

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 8.133521; 98.29902

Length:

>>> 11 kilometers

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?

☑ NC

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

☑ YES

Details:

>>> This area is protect by Sirinath National Park.

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)	1 time/year		decreasing	1-5	Yes

Green (Chelonia mydas)	1 time/year	stable	1-2	No
Loggerhead (Caretta caretta)				

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

>>> Mai Khao is 11 kilometers long, the longest beach in Phuket, and because it is part of the Sirinat National Park.

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)						
Loggerhead (Caretta caretta)						

	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		V			
Sand mining / removal				7	
Vehicles					
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		V			
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)			
Boat strikes	V		
Incidental capture in coastal fisheries		V	
Egg collection (i.e. direct harvest by humans)		V	
Direct harvest of animals in coastal waters at or near the site		\Box	
Exploitation of nesting females (i.e. direct harvest on land)		Ø	

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:

- $\ensuremath{\square}$ Training/ capacity building for researchers and field workers
- ☐ Training/capacity building for community-based activities
- ☑ Training/capacity building for project development, fundraising, execution, evaluation
- ☑ Scientific equipment and/or technical support
- ☑ Technical expertise to enhance conservation or management at the site

Sites Site 6

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

Name of the site:

>>> HadSurin

State/province:

>>> Phuket

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 7.975473 : 98.27847

Length:

>>> 1 kilometer

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

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

>>> There are monitoring every year.

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)	2 time/year			4-5	No
Loggerhead (Caretta caretta)					

- g) Please estimate the approximate area of adjacent in-water habitat for this site. $\ \ \, \boxdot$ 1-2~km2
- 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)					I
Natural threats, disease, predation of nests/nesting females or natural predation at sea					
Sand mining / removal			7		
Vehicles					7
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)				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			
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)		7	

- 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 people from coastal communities
- ☑ Training/capacity building for community-based activities

Sites Site 7

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

Name of the site:

>>> Had Karon

State/province:

>>> Phuket

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 7.843899 ; 98.29362

Length:

>>> 5 kilometers

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

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.

			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)	2 time/year		1-2	No
Green (Chelonia mydas)				
Loggerhead (Caretta caretta)				

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

	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			\square		
Vehicles			7		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			V		
Artificial lighting (on land or near shore)					
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)		7			
Inshore oil pollution				Ø	
Industrial effluent				V	
Marine debris (e.g. plastics at sea, flotsam)		Ø			
Boat strikes		V			
Incidental capture in coastal fisheries				V	
Egg collection (i.e. direct harvest by humans)				7	
Direct harvest of animals in coastal waters at or near the site					☑

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 community-based activities
- ☑ Technical expertise to enhance conservation or management at the site

Sites Site 8

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

Name of the site:

>>> Tarutao

State/province:

>>> Satun

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 6.591315; 99.656405

Length:

>>> 600 m.

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

Details:

>>> Tarutao National Park

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)	a	2023		1	

Loggerhead (Caretta caretta)					
---------------------------------	--	--	--	--	--

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

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

>>> -

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

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
- $\ensuremath{\square}$ Training/ capacity building for people from coastal communities

- 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.
- >>> 1. Marine and Coastal Resources Research Center (Lower Andaman Sea)
- 2. tarutao national park

Sites Site 9

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

Name of the site:

>>> Haad Thong Nan, Samui Island

State/province:

>>> Surat Thani

Latitude and longitude (middle of the beach or two from either end of the beach): N 9.4694718, E 100.071554

Length:

>>> 100 m

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?

 \square NC

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

 $\ensuremath{\square}$ NO

- e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?
- >>> Monitoring since 2012 and repeated every 2 years.
- 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)	every 2 years	2012	stable	a	yes
Leatherback (Dermochelys coriacea)					

Green (Chelonia mydas)			
Loggerhead (Caretta caretta)			

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

>>> The data was from satellite tagging that applied to the turtle in 2018.

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)					Ø
Predation by domestic / feral animals (cats, dogs)			V		
Natural threats, disease, predation of nests/nesting females or natural predation at sea		7			
Sand mining / removal				Ø	
Vehicles		Ø			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		Ø			
Artificial lighting (on land or near shore)			V		
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)			V		
Boat strikes					
Incidental capture in coastal fisheries			☑		
Egg collection (i.e. direct harvest by humans)				Ø	
Direct harvest of animals in coastal waters at or near the site			Ø		
Exploitation of nesting females (i.e. direct harvest on land)				Z	

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 ☑ Training/capacity building for community-based activities ☑ Training/capacity building for onboard observer programmes ☑ Training/capacity building for project development, fundraising, execution, evaluation ☑ Scientific equipment and/or technical support ☑ Technical expertise to enhance conservation or management at the site Sites Site 10 a) Provide the name, location and length of the site Name of the site: >>> Laem Son Beach, Adang Island State/province: >>> Satun Latitude and longitude (middle of the beach or two from either end of the beach): >>> 6.51024; 99.314029 Length:
- 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

>>> 700 m

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:

>>> Tarutao National Park

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

>>> no

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)	a	2022	stable	1
Loggerhead (Caretta caretta)				

g) Please estimate the approximate area of adjacent in-water habitat for this site. $\ \, \square \,\, 5\text{-}10 \,\, \text{km2}$

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

	Unknow n	Non e	Low (rare event)	Mediu m	High (common occurrence)
Other (type in)			7		
Predation by domestic / feral animals (cats, dogs)				V	
Natural threats, disease, predation of nests/nesting females or natural predation at sea			V		
Sand mining / removal				7	
Vehicles			7	7	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			Z		
Artificial lighting (on land or near shore)			☑		
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)			Ø		

Inshore oil pollution			7	
Industrial effluent			V	
Marine debris (e.g. plastics at sea, flotsam)		V		
Boat strikes				
Incidental capture in coastal fisheries		\square		
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)			V	

- 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
- 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.
- >>> 1.Marine and Coastal Resources Research Center (Lower Andaman Sea)
- 2. Tarutao National Park

Sites Site 11

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

Name of the site:

>>> Rawi Island

State/province:

>>> Satun

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 6.57762; 99.23443

Length:

>>> 350 m.

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)?

 \square NC

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:

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)	b	2012	decreasing	3	
Loggerhead (Caretta caretta)					

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

Industrial effluent				Ø
Marine debris (e.g. plastics at sea, flotsam)		Ø		
Boat strikes			7	
Incidental capture in coastal fisheries		V		
Egg collection (i.e. direct harvest by humans)			\Box	
Direct harvest of animals in coastal waters at or near the site			7	
Exploitation of nesting females (i.e. direct harvest on land)				V

- 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
- 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.
- >>> 1. Marine and Coastal Resources Research Center (Lower Andaman Sea)
- 2. tarutao national park

Sites Site 12

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

Name of the site:

>>> Koh Tachai

State/province:

>>> Phanggna

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

>>> 9.072647; 97.81378

Length:

>>> 700 meters

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)?

☑ YES

Details:

>>> This site is under Mu Ko Similan National park.

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)	2 time/year	1982	stable	1-5	Yes
Loggerhead (Caretta caretta)					

- g) Please estimate the approximate area of adjacent in-water habitat for this site. $\ \ \, \boxdot$ 1-2~km2
- 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)					Image: Control of the
Natural threats, disease, predation of nests/nesting females or natural predation at sea					
Sand mining / removal			7		
Vehicles			7		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)					
Artificial lighting (on land or near shore)					2
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)					
Inshore oil pollution				7	
Industrial effluent				7	

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

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 people from coastal communities
- ☑ Training/capacity building for community-based activities
- ☑ Technical expertise to enhance conservation or management at the site

Sites Site 13

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

Name of the site:

>>> Koh Kra Island

You have attached the following Web links/URLs to this answer.

______ - Department of Marine and Coastal Resources

State/province:

>>> Nakhon Si Thammarat Province

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 8.396945N. 100.736944E

Length:

>>> 240

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)?

☑ N/A

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:

>>> Ramsar, Navy Base

You have attached the following documents to this answer.

Ramsar Site Thailand.pdf - Ramsar Site

You have attached the following Web links/URLs to this answer.

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)	a	a			Yes
Leatherback (Dermochelys coriacea)					No
Green (Chelonia mydas)	b	b			Yes
Loggerhead (Caretta caretta)					No

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

>>> Ko Kra is a group of small rocky islets in the southern area of the Gulf of Thailand. It is under the administration of Nakhon Si Thammarat Province of Thailand.

about 54 km from the nearest shore, consists of three islets: Ko Kra Yai, Ko Kra Klang, and Ko Kra Lek, as well as one small rocky outcrop, Hin Ko Kra.

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)						Yes
Leatherback (Dermochelys coriacea)						No
Green (Chelonia mydas)						Yes
Loggerhead (Caretta caretta)						No

	Unknow n	Non e	Low (rare event)	Mediu m	High (common occurrence)
Other (type in)		Ø			
Predation by domestic / feral animals (cats, dogs)				√	
Natural threats, disease, predation of nests/nesting females or natural predation at sea			Z		
Sand mining / removal			7		
Vehicles				Ø	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			Z		
Artificial lighting (on land or near shore)			☑		
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					I
Incidental capture in coastal fisheries			Ø		
Egg collection (i.e. direct harvest by humans)			Ø		
Direct harvest of animals in coastal waters at or near the site			Ø		
Exploitation of nesting females (i.e. direct harvest on land)			Ø		

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
- ☑ Scientific equipment and/or technical support

Sites Site 14

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

Name of the site:

>>> Surin

State/province:

>>> Phangnga

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 9.409606 ; 97.86608

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:

>>> This site in under the Mu Ko Surin National Park.

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)	2 time/year	1981		1-5	Yes
Loggerhead (Caretta caretta)					

	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			7		
Vehicles				Ø	

Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)				
Artificial lighting (on land or near shore)			V	
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)		V		
Inshore oil pollution			V	
Industrial effluent			I	
Marine debris (e.g. plastics at sea, flotsam)		\(
Boat strikes		7		
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 community-based activities
- ☑ Training/capacity building for project development, fundraising, execution, evaluation
- ☑ Technical expertise to enhance conservation or management at the site

Sites Site 15

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

Name of the site:

>>> Talu Island

You have attached the following Web links/URLs to this answer.

http://

State/province:

>>> Prachuap Khiri Khan

Latitude and longitude (middle of the beach or two from either end of the beach): >>> 11°04'29.3"N 99°33'34.9"E

You have attached the following Web links/URLs to this answer.

http://

Koh Talu - Location

Length:

>>> 2.5 kilometer

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)?

☑ YES

Details:

>>> Protected area by Ao Siam National Park and Siam Marine Rehabilitation Foundation.

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

>>> Time for marine turtle monitoring start at Talu Island in September 2009 by Siam Marine Rehabilitation Foundation every year. And after establishment of Ao Siam National Park, there are monitoring in every year. then report to Department of Marine and Coastal Resources.

You have attached the following Web links/URLs to this answer.

Siam Marine Rehabilitation Foundation - The project begins with helping female turtles to lay her eggs on the island.

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)	Every day in sea turtle nesting		decreasing	11-100	yes
Leatherback (Dermochelys coriacea)					
Green (Chelonia mydas)					
Loggerhead (Caretta caretta)					

g) Please estimate the approximate area of adjacent in-water habitat for this site. ${\rm \ \square \ 5\text{-}10\ km2}$

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

>>> In-water habitat near the site is coral reef area.

You have attached the following Web links/URLs to this answer.

Coral reef conservation - Area protection

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?	Popula tion numbe r	Trend (decreasing, increasing, stable)	Monitor ed since (year)	How often is this species monitored?
Flatback (Natator depressus)						
Olive ridley (Lepidochelys olivacea)						
Hawksbill (Eretmochelys imbricata)	DMCR 1-2 time / year Siam Marine Rehabilitation Foundation And Ao Siam National Park monitor every month.		decreasi ng	1-10		
Leatherback (Dermochelys coriacea)						
Green (Chelonia mydas)	DMCR 1-2 time / year Siam Marine Rehabilitation Foundation And Ao Siam National Park monitor every month.		decreasi ng	1-0		
Loggerhead (Caretta caretta)						

Please provide any references and links:

You have attached the following Web links/URLs to this answer.

Sea turtles monitor - Nesting and sighting

	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				Ø	
Vehicles			7		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)				V	
Artificial lighting (on land or near shore)					
Agricultural/urban/touris m development (e.g. construction that disrupts nesting activities)				V	
Inshore oil pollution				7	
Industrial effluent				7	
Marine debris (e.g. plastics at sea, flotsam)			Ø		
Boat strikes					Ø

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)		V	

Other threat:

>>> None

- 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
- ☑ Training/capacity building for project development, fundraising, execution, evaluation

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
	Increasing of rescue report by local communities.	Improve knowledge and precticle/ Increase survival rate/raising awareness	The stranding network traning program
https://complaint.dmcr.g o.th/	within 24 hrs.	rapid response by gevernment agencies	e-Complaint
https://live.dmcr.go.th/lo veseaturtle/	number of viwers	raising awareness and participation	Live stream laying & hatchling of seaturtle
https://www.dmcr.go.th/ detailLib/6245	Increasing of rescue report by local communities.	Improve knowledge and precticle/ Increase survival rate	Endangered Marine Species Stranding Response Manual
https://projects.dmcr.go. th/miniprojects/40/4897 0		Improve knowledge and precticle/raising awareness	Education media
	·		

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:

☑ PRESENT

Please provide the information below:

Number of vessels: >>> 3129

You have attached the following documents to this answer.

THAI FISHING VESSELS STATISTICS 2023.pdf - Data on 30 June 2023

You have attached the following Web links/URLs to this answer.

<u>Infographic חחחחחחחחחחח - חחחחחחחחחח - Fishing Vessel</u>

Boat size (range or average):

>>> \(\partial 60-150 \) GT=1357, 30-60=1127, <30=627, >150=18

Number of trips per year:

>>> Average 20.56 trip, not more than 30 days per trip

You have attached the following documents to this answer.

Fishing Effort Trawl.pdf - assessment of catch and fishing effort of trawl fisheries

Mesh size used:

You have attached the following documents to this answer.

Geographic distribution:

>>> Both sides of Thailand

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

- ☑ Spatial and temporal control of fishing (e.g. seasonal closures of fishing activities)
- $\ \square$ 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.

- $\ensuremath{\square}$ Vessel monitoring systems
- ☑ 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.

Vessel monitoring systems

The measure is mandatory under the following regulation:

>>> 1.The Royal Decree on Fishing Schedule B.E. 2558 mandates that commercial fishing vessels with a size of 30 gross tons or more, engaged in fishing activities, are required to install a Vessel Monitoring System (VMS). They must also maintain and ensure the proper functioning of the system at all times to comply with Monitoring, Control, and Surveillance (MCS) measures. This is to be conducted in conjunction with the process of retrospective examination (Traceability) to address issues related to illegal fishing activities. The Department of Fisheries has issued two announcements. The first announcement is the Department of Fisheries Announcement regarding the establishment of criteria and methods for installing a Vessel Monitoring System (VMS) and maintaining the Vessel Monitoring System of vessels transporting aquatic animals or vessels keeping aquatic animals in operational condition at all times (Announcement No. 3) B.E. 2560. The second announcement is the Department of Fisheries Announcement regarding the establishment of criteria and methods for installing a Vessel Monitoring System (VMS) and maintaining the Vessel Monitoring System of commercial fishing vessels to ensure operational readiness at all times (Announcement No. 4) B.E. 2560.https://www.thaishipowners.com/file/maritimelaw/20181113135207-th.pdf

nttps://www.thaisinpowners.com/me/mantimeraw/20101113133207-ti

The measure is voluntary:

>>> Vessels that are required to install a Vessel Monitoring System (VMS) are registered as sea-going vessels with a size of 30 gross tons or more. These vessels fall into the following categories: support vessels (1), refrigerated cargo vessels (2), vessels transporting fuel for fishing (3), freshwater transport vessels (4), vessels transporting freshwater for fishing (5), and vessels transporting oil products with a flash point above 60 degrees Celsius."

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

The measure is mandatory under the following regulation:

>>> Inspection at port have PIPO control center, Logbook, At sea use VMS

You have attached the following documents to this answer.

Royal Ordinance on Fisheries B.E.2558 (2015).pdf - Royal Ordinance on Fisheries

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

Details/future plans:

>>> The Department of Marine and Coastal Resources has prepared a guide on sea turtle rescue and conducted training on lifesaving procedures for both commercial and local fisheries

2) Pelagic trawling

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)
- ☑ Effort management control

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

>>> 1.The Royal Decree on Fishing Schedule B.E. 2558 mandates that commercial fishing vessels with a size of 30 gross tons or more, engaged in fishing activities, are required to install a Vessel Monitoring System (VMS). They must also maintain and ensure the proper functioning of the system at all times to comply with Monitoring, Control, and Surveillance (MCS) measures. This is to be conducted in conjunction with the process of retrospective examination (Traceability) to address issues related to illegal fishing activities. The Department of Fisheries has issued two announcements. The first announcement is the Department of Fisheries Announcement regarding the establishment of criteria and methods for installing a Vessel Monitoring System of vessels transporting aquatic animals or vessels keeping aquatic animals in operational condition at all times (Announcement No. 3) B.E. 2560. The second announcement is the Department of Fisheries Announcement regarding the establishment of criteria and methods for installing a Vessel Monitoring System (VMS) and maintaining the Vessel Monitoring System of commercial fishing vessels to ensure operational readiness at all times (Announcement No. 4) B.E. 2560.https://www4.fisheries.go.th/local/file_document/20230105101014_1_file.PDF https://www.thaishipowners.com/file/maritimelaw/20181113135207-th.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.

- ☑ Vessel monitoring systems
- $\ensuremath{\square}$ 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.

Vessel monitoring systems

The measure is mandatory under the following regulation:

>>> 1.The Royal Decree on Fishing Schedule B.E. 2558 mandates that commercial fishing vessels with a size of 30 gross tons or more, engaged in fishing activities, are required to install a Vessel Monitoring System (VMS). They must also maintain and ensure the proper functioning of the system at all times to comply with Monitoring, Control, and Surveillance (MCS) measures. This is to be conducted in conjunction with the process of retrospective examination (Traceability) to address issues related to illegal fishing activities. The Department of Fisheries has issued two announcements. The first announcement is the Department of Fisheries Announcement regarding the establishment of criteria and methods for installing a Vessel Monitoring System of vessels transporting aquatic animals or vessels keeping aquatic animals in operational condition at all times (Announcement No. 3) B.E. 2560. The second announcement is the Department of Fisheries Announcement regarding the establishment of criteria and methods for installing a Vessel Monitoring System (VMS) and maintaining the Vessel Monitoring System of commercial fishing vessels to ensure operational readiness at all times (Announcement No. 4) B.E. 2560.https://www4.fisheries.go.th/local/file_document/20230105101014_1_file.PDF https://www.thaishipowners.com/file/maritimelaw/20181113135207-th.pdf

The measure is voluntary:

>>> Vessels that are required to install a Vessel Monitoring System (VMS) are registered as sea-going vessels with a size of 30 gross tons or more. These vessels fall into the following categories: support vessels (1), refrigerated cargo vessels (2), vessels transporting fuel for fishing (3), freshwater transport vessels (4), vessels transporting freshwater for fishing (5), and vessels transporting oil products with a flash point above 60 degrees Celsius."

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

The measure is mandatory under the following regulation:

>>> 1.The Royal Decree on Fishing Schedule B.E. 2558 mandates that commercial fishing vessels with a size of 30 gross tons or more, engaged in fishing activities, are required to install a Vessel Monitoring System (VMS). They must also maintain and ensure the proper functioning of the system at all times to comply with Monitoring, Control, and Surveillance (MCS) measures. This is to be conducted in conjunction with the process of retrospective examination (Traceability) to address issues related to illegal fishing activities. The Department of Fisheries has issued two announcements. The first announcement is the Department of Fisheries Announcement regarding the establishment of criteria and methods for installing a Vessel Monitoring System of vessels transporting aquatic animals or vessels keeping aquatic animals in operational condition at all times (Announcement No. 3) B.E. 2560. The second announcement is the Department of Fisheries Announcement regarding the establishment of criteria and methods for installing a Vessel Monitoring System (VMS) and maintaining the Vessel Monitoring System of commercial fishing vessels to ensure operational readiness at all times (Announcement No. 4) B.E. 2560.https://www4.fisheries.go.th/local/file_document/20230105101014_1_file.PDF https://www.thaishipowners.com/file/maritimelaw/20181113135207-th.pdf

The measure is voluntary:

>>> Vessels that are required to install a Vessel Monitoring System (VMS) are registered as sea-going vessels with a size of 30 gross tons or more. These vessels fall into the following categories: support vessels (1), refrigerated cargo vessels (2), vessels transporting fuel for fishing (3), freshwater transport vessels (4), vessels transporting freshwater for fishing (5), and vessels transporting oil products with a flash point below 60 degrees Celsius (6), and vessels transporting oil products with a flash point above 60 degrees Celsius."

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

Details/future plans:

>>> The Department of Marine and Coastal Resources has prepared a guide on sea turtle rescue and conducted training on lifesaving procedures for both commercial and local fisheries

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)
- ☑ 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.

- ☑ Vessel monitoring systems
- ☑ Training programmes / workshops to train fishers on the use of bycatch reduction methods
- ☑ Informative videos, brochures, printed guidelines etc.

4) Driftnet

a) Fishing effort

☑ PRESENT

Please provide the information below:

Number of vessels:

>>> 847

You have attached the following documents to this answer.

THAI FISHING VESSELS STATISTICS 2023.pdf

Boat size (range or average):

>>> <30 GT =505, 30-60 GT = 250, 60-150 GT = 90, >150 GT =2

Number of trips per year:

>>> Don't know, but not more than 30 days per trip

Mesh size used:

>>> Not specified

Geographic distribution:

>>> Both side of Thailand

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

- ☑ Vessel monitoring systems
- ☑ 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.

Vessel monitoring systems

The measure is mandatory under the following regulation:

>>> Royal Ordinance on Fisheries Section 81

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

The measure is mandatory under the following regulation:

>>> At sea use VMS, At port use PIPO control center

You have attached the following documents to this answer.

VMS 2566.pdf - VMS

5) Purse seine (with or without FADs)

a) Fishing effort

✓ PRESENT

Please provide the information below:

Number of vessels:

>>> 736

Boat size (range or average):

>>> 60-150 GT = 539, 30-60 = 124, >150 GT =44, <30 GT = 29

Number of trips per year:

>>> Average 54.16 trips per year

You have attached the following documents to this answer.

Fishing and Fisheries Control of Purse Seine.pdf

Mesh size used:

>>> Not less than 2.5 cm

Geographic distribution:

>>> Both sides of Thailand

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)
- ☐ Measures to avoid encirclement of marine turtles in purse seine fisheries
- $\ \square$ Measures to release the turtles before the seine is howled in
- ☑ 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

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
- ☑ Training programmes / workshops to train fishers on the use of bycatch reduction methods
- ☑ Informative videos, brochures, printed guidelines etc.

6) longline

a) Fishing effort

☑ PRESENT

Please provide the information below:

Number of vessels:

>>> 257

Boat size (range or average):

>>> <30 GT =181, 30-60 GT = 73, 60-150 GT =3

Number of trips per year:

>>> Not more than 30 days per trip

Geographic distribution:

>>> Both sides of Thailand

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

- ☑ 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.

- ☑ Vessel monitoring systems
- ☑ 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.

7) Artisanal fishing gear

Type and description:

>>> Small-scale fishing vessels used for fishing activities or fishing and transporting passengers for eco-tourism have sizes ranging from 3 gross tons and up, but not exceeding 10 gross tons.

Small-scale fishing vessels used for fishing activities, with sizes ranging from 10 gross tons but not exceeding 15 gross tons, are granted fishing licenses according to Section 174 of the Fishing Act of 2015, as amended."

a) Fishing effort

☑ UNKNOWN

Please provide any available information below:

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

>>> gill net, Squid Trap, Fish Trap, Crab Trap, Hook and Line, Longlines, Push Nets, Frog Crab Trap, Squid falling nets, Falling nets, Lift Net, Anchovy Lift Net

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
- ☑ 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.

- ☑ 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: >>> The Fishing Act of 2015.

8) Other types of fisheries

a) Fishing effort

☑ NONE

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

- ☑ Measures to avoid encirclement of marine turtles in purse seine fisheries
- ☑ Appropriate combinations (as per existing guidelines e.g., FAO 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

- ☑ 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: >>> The Fishing Act of 2015

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

1.2.6 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?

☑ UNKNOWN

b) Countries of origin of IUU fishing, if known?

Details:

>>> -

References and links:

You have attached the following Web links/URLs to this answer.

https://www.bangkokpost.com/

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

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

 $\ \ \square$ NO

b) Egg consumption

☑ NO

c) Fat and oil consumption

 $\ \ \square$ NO

d) Traditional medicine

☑ NO

e) Shell

 $\ \ \square$ NO

f) Making of tortoise shell products (bekko)

✓ NO

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

☑ YES

If yes, please provide details (title/date) of the relevant legislation, as well as any exemptions (e.g. for

traditional use) under that legislation and comment on effectiveness of the legislation in terms of enforcement.

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

Legislation title	Legisl ation date	Is traditional use allowed under this legislation?	Is the legislatio n enforced?	What are the challenges?
Limited Resources: Law enforcement agencies may face constraints in terms of manpower, funding, and technology, which can hinder their ability to effectively enforce laws.	yes	No	28 February B.E. 2535 (1992)	Wildlife Preservation and Protection Act, B.E. 2535 (1992)

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

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

- c) Does your country have a harvest quote for traditional use of marine turtles? $\hfill \square$ NO
- d) If there is a quota, does it take into account exisiting quotes in other States that share marine turtle populations in your country? $\ \square$ NO
- 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? $\hfill \ensuremath{\square}$ NO
- 1.3.7 Which of the following adverse economic incentives are encouraging illegal take of marine turtles in your country?

☑ None of the above

- 1.3.8 Has your country taken any measures to try to correct these adverse incentives?
 ☑ NOT APPLICABLE (no adverse economic incentives exist)
- 1.3.9 Are there touristic activities linked in marine turtles in your country? $\hfill \hfill \hfil$

If yes, please indicate which type:

	N o	Ye s
a) Nesting turtle observation		7
b) Hatching releases		V
c) Swimming/ snorkeling activities		
Other (please describe)		

References and links:

>>> https://www.dmcr.go.th/detailLib/770

You have attached the following Web links/URLs to this answer.

Head-Starting - Head-Starting

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:

>>> The activities are carried out under the supervision of the Department of Marine and Coastal Resources, following the guidelines outlined of Head- Starting and Nesting Area management.

References and links:

>>> https://www.dmcr.go.th/detailLib/770

You have attached the following documents to this answer.

Nesting_Management.pdf - Nesting Management

Nesting Management.pdf - Nesting Management

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. \square NO

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?

 $\ \ \square$ 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

b) Nesting beach protection (patrolling)

☑ YES

c) Predator control

☑ YES

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

☑ YES

e) Vehicle access restrictions

☑ YES

f) Regular removal of debris / clean-up programmes

☑ YES

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

☑ NO

h) Building location design regulations (coastal protection)

☑ NO

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

☑ YES

k) Are these measures in place in protected areas only, or also outside of established protected areas?

In protected areas only (list the measures above e.g. a, b, c, etc.): >>> a,b,c,d,e,f,i

Outside of protected areas (list the measures above e.g. a, b, c etc.): >>> f.h

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

☑ Egg relocation is practiced on >50% of nesting beaches

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?
☑ YES

OBJECTIVE II: PROTECT, CONSERVE AND RESTORE MARINE TURTLE HABITATS

2.1 MEASURES TO PROTECT AND CONSERVE MARINE TURTLE HABITATS

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

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

Details:

- >>> A marine national park is a protected area classified as IUCN Category II: National Park, according to the IUCN (International Union for Conservation of Nature) classification system (1994). National parks in Thailand are established under the National Parks Act of 1961, amended in 1989 and 2002. These areas fall under the jurisdiction of the Department of National Parks, Wildlife, and Plant Conservation, which is under the Ministry of Natural Resources and Environment. The protection and management of national parks are governed by relevant royal acts, ensuring the conservation and care of these protected areas.
- Non-hunting areas, classified as Category VI in the IUCN (International Union for Conservation of Nature) management category system, refer to protected areas managed for habitat/species management purposes. In Thailand, non-hunting areas are established under the Wildlife Reservation and Protection Act of 1992, falling under the jurisdiction of the Department of National Parks, Wildlife, and Plant Conservation, which is part of the Ministry of Natural Resources and Environment. These areas are designated to conserve habitats crucial for the survival of certain wildlife species or areas needed for specific life activities, such as breeding, egg-laying, nurturing offspring, as a food source, and as stopover sites during migrations.

References and links:

>>> https://km.dmcr.go.th/c_61/s_33/d_2252 https://km.dmcr.go.th/c_61/s_65/d_581

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

Details:

>>> In the year 2019 (B.E. 2562), Thailand entered into a conservation agreement for marine turtles to collectively protect, care for, and preserve sea turtles and their nesting areas. This collaborative effort involves both government and private sector entities.

References and links:

>>> https://www.dmcr.go.th/detailAll/30008/nws/11

2.1.3 Is marine water quality (including marine debris) monitored near turtle habitats? If yes, describe the nature of this monitoring and any remedial measures that may have been taken. ☑ YES

Details:

>>> - In Thailand, there are agencies responsible for assessing the quality of coastal seawater, namely the Department of Marine and Coastal Resources and the Pollution Control Department. For the assessment of coastal seawater quality, the "Marine Water Quality Index (MWQI)" has been developed by the Pollution Control Department. This index serves as a tool for evaluating the overall situation of seawater quality, indicating at which level the seawater quality resides. It is designed to be easily understandable and suitable for public dissemination, providing information to the public about the condition of seawater quality.

Thailand has designated the issues of demostic waste and marine debris as national priorities. There are

- Thailand has designated the issues of domestic waste and marine debris as national priorities. There are comprehensive waste management plans in place, addressing short-term, medium-term, and long-term goals. These plans fall under the broader framework of national reform in the field of natural resources and the environment.

One such plan is the "National Master Plan for Solid Waste Management" for the years 2016-2021 (BE 2559-2564). Additionally, there is the "Roadmap for Plastic Waste Management" covering the years 2018-2030 (BE 2561-2573). These initiatives reflect Thailand's commitment to tackling the challenges posed by waste, particularly plastic waste, with a strategic and sustainable approach.

References and links:

>>> - marine water quality:

https://www.mnre.go.th/attachment/iu/download.php?WP=qUlcnKt1pQMgZKqCGWOghJstqTgcWatmpQlgAKplGQWgG2rDqYyc4Uux

- marine debris: https://km.dmcr.go.th/c_260/d_19695

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

Use the text box to elaborate on your response.

Details:

>>> The quality of coastal seawater is monitored by the Pollution Control Department in Thailand. If the presence of pesticides and toxic elements is detected, such as mercury (Hg), cadmium (Cd), total chromium (Total Cr), hexavalent chromium (Cr6+), lead (Pb), copper (Cu), cyanide (CN-), and polychlorinated biphenyls (PCBs), there will be reporting of the results when the values exceed the standards. This monitoring and reporting process is essential for ensuring the safety and health of coastal environments and marine ecosystems.

References and links:

>>>

https://www.mnre.go.th/attachment/iu/download.php?WP=qUIcnKt1pQMgZKqCGWOghJstqTgcWatmpQIgAKpIGQWgG2rDqYyc4Uux

2.2 RESTORATION OF DEGRADED MARINE TURTLE HABITATS

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

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

☑ YES see below

Details/future plans:

>>> The Department of Marine and Coastal Resources is the main organization responsible for the management of marine and coastal resources. The mission is to conserve, rehabilitate, and manage marine and coastal resources . To achieve this, the department promotes the natural regeneration of coral reefs by utilizing broken and damaged coral fragments. These fragments are employed in reef restoration efforts under the Coral Reef Restoration Project and the Coral Plantation Project .These projects are part of the 20-Year Marine and Coastal Resources Strategic Plan (BE 2560-2579), specifically under Strategic Objective 1 - Forest and Biodiversity Management, Target 3 - Enhance the diversity of coral reefs, seagrass beds, and marine ecosystem. Between 2017-2021, the department has carried out coral reef restoration by using 1,248,000 coral fragments for reinforcement along 55 natural coral reef stations in 35 locations across 12 provinces, covering a total area of 1.3 kmsq.

References and links:

>>>

https://www.dmcr.go.th/downloadLib/?file=nJM4MUOjoF53BHj0oGSaAaD0nGy4A3NmoGA3YHj3oGSaZaDgnJI4oUOcoJM3Y0kyoJkanKEznF94qUOxoF93MRkuoJ9aoUEjnKI4Y3OloJA3oHkxoF9aMKEwnKW4qKOioKA3MHkloF9anUE0nF54o3OaoF53pxkwoJ1aMUDhnJI4L3OloKl3o0kmoJlapaDinGc4ED%3Q%3Q&n=%E0%B9%81%E0%B8%9C%E0%B8%99%E0%B8%9F%E0%B8%B7%E0%B9%89%E0%B8%99%E0%B8%9F%E0%B8%B9%E0%B8%97%E0%B8%A3%E0%B8%B1%E0%B8%9E0%B8%B2%E0%B8%B1%E0%B8%A3%E0%B8%B1%E0%B8%A3%E0%B8%B1%E0%B8%A3%E0%B8%B1%E0%B8%B7&t=GT5gq2qxqS9cMUug&type=rQR%3Q&up=rQR%3Q&id=qQqcZKtl&sync=1

 $\label{local-prop} $$ $$ https://www.dmcr.go.th/downloadLib/?file=q2MZMT1jMl50ATx0rS9jAz0kqmAZYJ01MmM0Azx1rQljAT0lqmOZA20kMl10ZzxkrQAjZJ0mqmWZZT0lMl10MJyfrTyjMz0iq2lZoT1cM2M0Y2y0rTEjY21xq2SZo21fM3O0qJxirUEjo21iq3WZq213M3q0Y2x6rRZ%3Q&n=%E0%B8%A3%E0%B8%B2%E0%B8%A2%E0%B8%87%E0%B8%87%E0%B8%B2%E0%B8%B0%B8%B2%B0%B8%B2%B0%B8%B2%B0%B8%B0%B8%B0%B0%B8%B0%B0%B0%B0%B0%B0$

0%B8%A5%E0%B8%B9%E0%B8%81%E0%B9%80%E0%B8%AA%E0%B8%A3%E0%B8%B4%E0%B8%A1%E0%B8%9B%E0%B8%B0%E0%B8%81%E0%B8%B2%E0%B8%A3%E0%B8%B1%E0%B8%87%E0%B9%81%E0%B8%9A%E0%B8%9A%E0%B8%B9%E0%B8%A3%E0%B8%93%E0%B8%B2%E0%B8%81%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B2%E0%B8%B5%20%E0%B8%9E.%E0%B8%A8.%202560-2564&t=GT5gq2qxqS9cMUug&type=rQR%3Q&up=rQR%3Q&id=Mmq0Azx4rQp%3Q&sync=0

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

☑ YES see below

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

☑ YES, see below

Details/future plans:

>>> The Department of Marine and Coastal Resources engages in seagrass restoration activities through the method of transplanting seagrass to rehabilitate degraded seagrass habitats. This initiative aims to restore and rejuvenate seagrass ecosystems that have been adversely affected. Additionally, the department provides sustainable marine tourism knowledge to promote sustainable practices in coastal and marine tourism.

You have attached the following documents to this answer.

MPAs_Trang.pdf

References and links:

>>> https://www.dmcr.go.th/detailLib/3004/

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	Populatio n trend	Is this a protected area?
Yes	Increase	□nesting monitoring	1995 - present	1995	green turtle	Similan islands
Yes	Increase	nesting monitoring	1979 - present	1979	Green and hawksbill turtle	Kram island
No	Stable	nesting monitorting	2012 - present	2012	Hawksbill turtle	Samui island
No	Increase	Photo - Id: population estimation	2018 - present	2018	Sea turtle	Koh Tao
Yes	Increse	nesting monitoring	2019 - present	2019	Leatherbac k turtle	Khao Lampi-Hat Thai Mueang National Park

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):

>>> Green turtle Hawksbill turtle Olive ridley turtle

b) Satellite tracking

√ Yes

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

>>> Green turtle on Thai coasts Hawksbill turtle on Samui Island

c) Genetic studies

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

>>> Green turtle: Paternity and haplotype Hawksbill turtle: Paternity and haplotype

Leatherback turtle: Haplotype

References and links:

>>> https://www.dmcr.go.th/detailLib/608 https://www.car.chula.ac.th/display7.php?bib=b1494791 https://www.mdpi.com/1424-2818/14/9/764

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

3.1.5 Is the use of traditional ecologial knowledge in research being promoted? ☐ UNSURE

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

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

Details (aim of study, methods, results):

- >>> 1. Youth camp for conservation and ecosystem restoration. To create awareness of conservation and ecosystem restoration among local youth.
- 2. Create a learning center about natural history and marine animals, for educating local people in the community.

You have attached the following documents to this answer.

timeline 20240221 153341.jpg

References and links:

>>> https://projects.dmcr.go.th/miniprojects/37/news/356/detail/49583

https://projects.dmcr.go.th/miniprojects/37/news/356/detail/49572

https://www.facebook.com/DMCRTH/posts/pfbid02Huaa2VjFYy1FSYQhiuUrBXY1M3tAHtnX8U3JMtQZs8jp8QabfcRAV378142bu7pHl

https://www.facebook.com/DMCRTH/posts/pfbid02Huaa2VjFYy1FSYQhiuUrBXY1M3tAHtnX8U3JMtQZs8jp8QabfcRAV378142bu7pHl

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 evaluaton, methods, results): >>> During the season sea turtles lay eggs, Department of Marine and Coastal Resources has been established a center to monitor the leatherback turtle situation in the area. Arrange shifts to monitor and take care of the safety of leatherback turtle eggs, beach patrol to be ready to work if we found sea turtles are laying eggs. There are public relations to create knowledge and understanding in conserving marine and coastal resources, including information about rare marine animals for visitors, student and people around that area. This work derives the cooperation from volunteers in monitoring and carrying out such work as well.

References and links:

3.2 COLLABORATIVE RESEARCH AND MONITORING

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

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

 ☑ NO
- 3.2.2 On which of the following themes have regional collaborative studies and monitoring been conducted? Use the text boxes to describe the nature of this international collaboration or to clarify your response. Answer 'NO' if the studies/monitoring undertaken do not involve international collaboration.
- a) Reproductive biology (including any of the following: nesting data, hatchling survival, nest protection, recruitment, etc.)

 ☑ NO
- b) Genetic characterization

☑ NO

c) Migratory and dispersal routes ☑ 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 Department of Marine and Coastal Resources monitors the status of resources in Thailand's seagrass areas. The results of these efforts provide information about the status and distribution of endangered marine species. This has led to the implementation of measures to protect seagrass areas. Regarding to the Department of Marine and Coastal Resources Act, B.C 2558(2015). Department of Marine and Coastal Resources has proposed the Trang Province to implementation of measures aimed at the protection and conservation of marine and coastal resources especially concerning the habitats of rare or endangered marine animals and seagrass areas. Finally, in June 21,2022 the Ministry of Natural Resources and Environment was announced the implementation of measures aimed at the protection and conservation of marine and coastal resources in Trang Province.

References and links:

>>> https://www.ratchakitcha.soc.go.th/DATA/PDF/2565/E/170/T_0016.PDF?fbclid=IwAR05haQZ3BnCuNby-9YTScsVHq8owDRM98KaewARY9k5KeWP4Nsd44743Gc

You have attached the following documents to this answer.

MPAs_Trang.pdf - MPAs Trang

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

☑ YES

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?

☑ NO

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

☑ every 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):

>>> Semen collection project was operated in 2022. This project aims to do artificial insemination that initially work on semen collection and preservation and hormone analysis.

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 Department of Marine and Coastal Resources has instituted a range of measures to safeguard the nesting grounds of sea turtles, fostering knowledge and understanding within the local community over an extended period. In the broader scope, the department is actively executing operations according to a strategic plan, aiming to establish a participatory process and enhance awareness surrounding the conservation and restoration of marine and coastal resources, especially focusing on sea turtles and rare marine animals. These initiatives encompass:
- 1. Dissemination of Knowledge Based on Academic Principles: Sharing information and knowledge about the diverse threats leading to the endangerment of sea turtles, such as those arising from marine pollution, encroachment on beach areas, and unsustainable fishing practices.
- 2. Facilitation of Activities to Encourage Participation: Organizing activities that stimulate collaboration among various sectors, concurrently establishing a network dedicated to the active conservation of marine and coastal resources.
- 3. Promotion of Awareness Across Diverse Sectors: Encouraging all sectors to acknowledge the significance of conserving and rehabilitating sea turtles. This involves promoting awareness aligned with the royal initiatives of Her Majesty Queen Sirikit, the conservation endeavors led by Her Majesty the Queen of King Rama IX, and projects directed at preserving coral reefs and marine life, championed by Her Royal Highness Princess Sirivannavari Nariratana.
- 4. Development of Guidelines for Sea Turtle Nesting Site Management: Crafting comprehensive guidelines for the management of sea turtle nesting sites, providing practical instructions and recommendations to be shared with relevant agencies.

Through the implementation of these strategies, the Department of Marine and Coastal Resources aims to effectively conserve and restore marine and coastal resources, fostering active participation and collaboration across various sectors.

References and links:

>>> https://km.dmcr.go.th/c 1/s 443/d 19222

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

Details/future plans:

>>> Government agencies, universities, and non-governmental organizations collaborate to produce educational media aimed at raising public awareness about sea turtles, disseminating accurate information on species, anatomy, life cycle of sea turtles, nesting grounds, as well as promoting sea turtle conservation efforts including monitoring and rescuing stranded sea turtle.

References and links:

- >>> 1.Online media on the species and characteristics of sea turtles in Thailand (Sea Turtles of Thailand) https://www.dmcr.go.th/detailLib/2104
- 2.Book "Sea Turtles: Biology and Conservation" https://www.dmcr.go.th/detailLib/3135
- 3.Online media on species identification, biology, life cycle, anatomy, nesting sites, sea turtle conservation, and aiding stranded sea turtles

https://projects.dmcr.go.th/miniprojects/40/48970?fbclid=IwAR1KOKyDnYWQYO0IQPW0kBSZWmw29HqQ_o_WXe6hTU14oFKXQcgVWSwKYsY

- 4.Media dissemination on sea turtles: feeding grounds, nesting sites, distribution, and the status of endangered marine animals https://km.dmcr.go.th/c_6&type=more
- 5.Media on the conservation project for sea turtle populations on Mani Island https://web.facebook.com/watch/?v=2706952196202845

6.Media on the care of leatherback turtles https://web.facebook.com/watch/?v=556065789135026

7. Animated video clips on knowledge about leatherback turtles in 3 parts

https://web.facebook.com/watch/?v=624418758399449

https://web.facebook.com/watch/?v=239084520550191

8. Knowledge about Green turtles https://web.facebook.com/watch/?v=470998240407861

9.Nursering for leatherback turtles https://www.youtube.com/watch?v=eni80EF6vus

10. Care of leatherback turtles nests and hatching of baby leatherback turtles

https://www.youtube.com/watch?v=CrG4i-pW7lc

11.Sea turtle conservation for tourists https://www.youtube.com/watch?v=nqDqsqT4Azk&t=2s

12. Visiting sea turtle conservation sites https://www.youtube.com/watch?v=DK45E0U 6xw

13. Article: Sea Turtles: Legends of the Thai Seas That Are Disappearing

https://www.readhowl.com/2019/09/19/sea-turtle-th/

14. The situation of sea turtles in Thailand

https://www.facebook.com/greenpeaceseath/photos/a.167087437097/10155372660992098/?type=3&paipv=0&eav=AfbyA7bopFGk6ho3AQNvD_phBUIRsXdp9zBV7gFaUmm3w5UHDES4ul1RZKMeaARx2Nk& rdr

You have attached the following Web links/URLs to this answer.

Online media on the species and characteristics of sea turtles in Thailand (Sea Turtles of Thailand) - Online media on the species and characteristics of sea turtles in Thailand (Sea Turtles of Thailand)

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

☑ Fishing industry

☑ Communities that interact with marine turtles and their habitats

☑ Local/Fishing communities

☑ Indigenous groups

☑ Tourists

☑ Media

☑ Teachers

Students

☑ Military, Navy, Police

☑ Scientists

✓ NGOs

☑ Enforcement personnel

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

☑ YES

Details/future plans:

>>> User

In Thailand, community learning centers have been established to promote research, conservation, and restoration of marine and coastal resources. One example is the Marine Animal Stranding and Rehabilitation Center, which is part of the marine animal care and coordination network. The center aims to enhance the effectiveness of rescuing stranded marine animals with academic rigor and international standards. It facilitates the transfer of knowledge and exchange of experiences with national and international organizations.

Additionally, the AquaMuseum in Thailand is part of the national conservation plan, led by the Department of Marine and Coastal Resources. This museum serves as an educational institution to apply academic knowledge in the management, conservation, and restoration of marine and coastal resources and environments in Thailand.

And Plant Genetic Conservation Project Under the Royal Initiation of Her Royal Highness Princess Maha Chakri Sirindhorn (RSPG) progressing the understanding of personnel and organization, and to introduce volunteers and companies to plant genetic conservation, to build links between various organization, including government agencies and private sections on virtue foundation. ,to create a plant genetics database system that can be communicated around the country.

References and links:

>>> http://www.rspg.or.th/rspg_eng/index.htm https://www.facebook.com/DMCRTH/photos/a.2171916402855845/2614077361973078/

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?

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

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

Details/future plans:

>>> activities to conserve marine turtles as observers:

- Hawksbill turtle nesting on Samui
- Green turtle nesting on Koh Tao
- Leatherback turtle nesting along Phang-Nga coast

Future plan

- sea turtle nesting management train course in Satun and Surat Thani Province.

References and links:

>>> https://mgronline.com/south/detail/9650000076338 https://web.facebook.com/DMCRTH/photos/a.1987674507946703/1944101502304004 https://www.dmcr.go.th/detailAll/67869/nws/260

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

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

☑ YES

Details, examples:

- >>> In Thailand has traditional knowledge about the turtles and tortoises. We believe all turtles and tortoises are sacred animals that bring you a long life and bring you across all distress. We always release them of the lucky wish.
- In Buddhism believes that the Buddha was once born as a turtle. Thus, Buddhists will respect and protect the turtles.

References and links:

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

Details, examples:

>>> In the year 2019 (B.E. 2562), Thailand entered into a conservation agreement for marine turtles to collectively protect, care for, and preserve sea turtles and their nesting areas. This collaborative effort involves both government and private sector entities.

References and links:

>>> https://www.dmcr.go.th/detailAll/30008/nws/11

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:

>>> Coordination with relevant government agencies for the management of nesting sites, establishing agreements with the private sector for the inspection of nesting areas, and planning to invite private sector participation in a project supporting the rehabilitation and recovery of injured turtles.

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
- ☑ IMPORTANT
- e) Incidental capture by foreign fleets in EEZ
- ☑ IMPORTANT
- f) Enforcement/patrolling of EEZ
- ☑ IMPORTANT
- g) Harvest exploitation of turtles and eggs

☑ ESSENTIAL

h) Illegal trade in turtle parts and products

☑ ESSENTIAL

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

☑ IMPORTANT

j) Marine pollution, including oil spills and marine debris

☑ ESSENTIAL

k) Training / capacity-building

☑ ESSENTIAL

I) Alternative livelihood development

☑ ESSENTIAL

m) Characterisation of turtle populations/genetic stocks

☑ ESSENTIAL

n) Identification of migration routes

☑ ESSENTIAL

o) Tagging / satellite tracking

☑ ESSENTIAL

p) Habitat studies

☑ ESSENTIAL

q) Genetic studies

☑ ESSENTIAL

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:

- >>> Thailand has joined in signing and certifying the CITES agreement.
- b) Please list the organizations that your country cooperates with to enhance regional collaboration on marine turtle conservation in your subregion.

Details: >>> 1.WWF 2.CITES

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

Details/future plans:

>>> The Ministry of Agriculture and Cooperatives, through the Department of Fisheries, in collaboration with the Center for Fisheries Law Enforcement, has developed a national action plan to address illegal fishing activities, including prevention, suppression, and elimination, as well as addressing issues such as lack of reporting and lack of control. Additionally, Thailand actively participates as a member of the Indian Ocean Tuna Commission (IOTC) and the South Indian Ocean Fisheries Agreement (SIOFA), adopting and enforcing resolutions as laws in the country to regulate fishing activities.

References and links:

>>> Announcement of the Department of Fisheries on Criteria and Practices for Fishing Vessels Outside Thai Territorial Waters Engaged in Fishing in the Area under the Responsibility of the Indian Ocean Tuna Commission, BE 2566 (2023).

There are criteria and practices for fishing vessels outside Thai territorial waters related to sea turtles as follows:

Clause 14: It is prohibited for the holders of fishing licenses to engage in fishing outside Thai territorial waters using surrounding and encircling gear, in areas where marine mammals such as whales, dolphins, porpoises, sea turtles, or whale sharks are observed.

Clause 16: Holders of fishing licenses engaging in fishing outside Thai territorial waters using surrounding and encircling gear must have a dip net for the purpose of rescuing sea turtles.

Clause 19: In the case of sea turtles caught during fishing, if they are weak or injured, they must be brought on board the vessel to be rehabilitated and strengthened before releasing them back into the sea. Follow the guidelines for species identification and sea turtle rescue attached to this announcement.

Clause 20: For the conservation of sea turtles, holders of fishing licenses engaging in fishing outside Thai territorial waters using trawl gear must provide equipment for cutting the trawl net and releasing sea turtles.

You have attached the following documents to this answer.

DOTC 2566.pdf

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

Details/future plans:

>>> -

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

- >>> In Thailand, the population estimation of sea turtle uses only nesting data that is not enough for estimation. So, the knowledge that is about other methods for estimation is very important and we still lack researchers that work on it. In addition, we need the supporting for learning about population estimation and sharing data with other countries in the region.
- In veterinary field, we need to develop efficiency of veterinary field as well as update the knowledge about new technology and diseases.

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:

>>> Marine endangered species rescue training courses since 2014

Sea turtle in Thai waters: flyer

Sea turtle health assessment in habitat manual

Sea turtle nesting management manual

future plan: sea turtle nesting management training courses

References and links:

>>> https://www.dmcr.go.th/detailLib/6069

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:

>>> In Thailand, there is collaboration between government agencies and educational institutions both nationally and internationally. This includes the development of cooperative efforts, such as MOU to enhance knowledge in research related to the biodiversity of endangered marine animals, such as whales, dolphins, dugongs, and sea turtles. Additionally, these collaborations extend to the surveillance of disease outbreaks, both from animals to humans and from humans to animals.

Furthermore, there is a focus on promoting services related to the health of marine animals and the management of marine and coastal resources. These collaborative efforts aim to benefit conservation and the sustainable restoration of marine and coastal resources collectively.

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

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?

Details:

Title of the documents, year, link:

- >>> The Department of Marine and Coastal Resources has formulated a 20-year (2017-2036) action plan for marine and coastal resources, with objectives related to the conservation of sea turtles and their habitats as follows:
- 1: Enhance the integrity of coral reefs, seagrass beds, and marine ecosystems.
- 2: Reduce the natural resource loss and biodiversity depletion in the country.

You have attached the following documents to this answer.

DMCR Action Plan.pdf - DMCR Action Plan

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:

- >>> leatherback turtle that nested on Andaman Sea coast
- Green turtle along Thai coasts
- Hawksbill turtle along Thai coasts
- Olive ridley turtle along Thai coasts
- Stranded loggerhead turtle along Thai coasts

References and links:

>>> https://www.mdpi.com/1424-2818/14/9/764 https://www.researchgate.net/publication/377169937_Genetic_structure_and_diversity_of_green_turtle_Chelon ia mydas in the Gulf of Thailand

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**). >>> Coastal Erosion or Destruction of Nesting Sites: The biting or destruction of coastal areas used by sea turtles for nesting can result in a loss or reduction of suitable nesting environments. This forces turtles to find new nesting sites that are not impacted by human activities.

Human Disturbance: Human activities, especially tourism without proper regulations, can disrupt the nesting process of sea turtles. This disturbance can extend to the hatching process of sea turtle eggs, affecting the successful emergence of hatchlings.

Pollution from Industrial Activities: The release of pollutants from industrial activities, such as factory discharges, chemicals, or waste, can impact the quality of seawater. This pollution may affect the overall growth and development of sea turtle hatchlings after they hatch.

Natural Habitat Changes: Changes in the natural environment of coastal areas, such as those caused by storms, the growth of other living organisms, or alterations in natural conditions, can render the sea turtle unable to lay eggs in a suitable environment.

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? ☑ UNSURF

Details, future plans:

>>> Thailand has enhanced conservation efforts for the leatherback turtle by elevating its status from a protected wildlife species to a reserved species. In addition to this, there are designated protected areas for seagrass and proposed measures to safeguard coastal areas that serve as nesting sites for sea turtles.

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

Details:

>>> -

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? ☐ YFS

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

Details:

>>> 1) The Environmental Quality Promotion and Preservation Act of 1992 has been amended by the Environmental Quality Promotion and Preservation Act (No. 2) of 2018, and the Ministry of Natural Resources and Environment Thailand has issued a regulation regarding the determination of projects, activities, or operations that require environmental impact assessment reports. This regulation includes criteria, methods, and conditions for preparing environmental impact assessment reports (20 December 2023); Ministerial Regulation on Designating Environmental Conservation Areas, and 2) Ministry Announcement on Designating Areas and Environmental Protection Measures

References and links:

>>> 1) https://download.asa.or.th/03media/04law/eqa/ma66-06.pdf 2) https://epa.onep.go.th/indexpr?id=0

You have attached the following documents to this answer.

EIA.pdf - EIA

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

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

>>> In this matter, approval must be sought from the principles of the Cabinet of the country.

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:

- >>> Objective 1: Reduce direct and indirect causes of marine turtle mortality.
- 1. Determine population-specific threats to be used as a basis for monitoring and management:
- 2. Assess vulnerability of turtles to marine debris, including ghost nets and plastic pollution, heavy metals and chemical pollutants
- 15. Develop guidelines on the management of beaches for successful hatchling production, including management of hatcheries
- Objective 2. Protect, conserve and rehabilitate marine turtle habitats
- Objective 3. Improve understanding of marine turtle ecology and populations through research, monitoring and information exchange

Objective 4. Increase public awareness and public participation

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)

- >>> 1.Plant Genetic Conservation Project under the Royal initiative of Her Rayal Highness Princess Maha Chakri Sirindhorn.
- 2. Princess Sirivannavari Thai coral reef and marine life conservation foundation.

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

	conservation of tles and their habitats
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protect habitat, conduct research,partrol, establish measures, law enforcement,raise awareness	Department of National Parks, Wildlife and Plant Conservation
protect habitat, conduct research,partrol, establish measures,law enforcement,raise awareness	Department of Fisheries
Research and Development	Universities
protect habitat, rehabilitation, conduct research,partrol, establish measures, law enforcement, raise awareness, knowledge sharing	Department of Marine and Coastal Resources
protect habitat,partrol,raise awareness	Rayal Thai Navy
protect habitat,partrol,raise awareness Enforcement, determination of regulation for the prevention and control of water pollution from oil and the development of coastal areas	Rayal Thai Navy Marine Deparment
Enforcement, determination of regulation for the prevention and control of water	
Enforcement, determination of regulation for the prevention and control of water pollution from oil and the development of coastal areas coordinating and monitoring the implementation of activities under international	Marine Deparment The Office of Natural Resources and
Enforcement, determination of regulation for the prevention and control of water pollution from oil and the development of coastal areas coordinating and monitoring the implementation of activities under international	Marine Deparment The Office of Natural Resources and

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:

>>> The legal authority can only be enforced within the country.