



Indian Ocean – South-East Asian Marine Turtle Memorandum of Understanding



United Arab Emirates

GENERAL INFORMATION

Agency or institution primarily responsible for the preparation of this report:

Environment Agency Abu Dhabi, United Arab Emirates

Other agencies, institutions, or NGOs that have provided input:

Emirates Wildlife Society-Worldwide Fund for Nature (EWS-WWF)
Environment Protection Agency Sharjah (EPA)
Supreme Petroleum Council (SPC)
Emirates Marine Environment Group (EMEG)
Tourism Development Investment Company (TDIC)

Designated Focal Point:

Pending

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

1.1 Introduction to marine turtle populations and habitats, challenges and conservation efforts. [INF]

The Gulf waters of UAE are home to two species of sea turtle, the green (*Chelonia mydas*) and the hawksbill (*Eretmochelys imbricata*). These two species use UAE waters extensively for foraging, and one species, the hawksbill, nests on the sandy beaches with outcrops of vegetation of several offshore islands.

All species of sea turtles including greens and hawksbills are long lived and slow growing. The long life, wide-ranging migrations and economic value make sea turtles prone to variety of threats. Maintaining their populations requires coordinated actions across nations and regions. In order to address the issues related to sea turtle conservation, the UAE has joined other countries through the IOSEA MoU in order to implement priority actions for conservation of sea turtles and their habitats.

Hawksbill is the only known nesting species in UAE. There is one nesting season that extends from mid-March to mid-June. Most of the known and potential nesting beaches of islands, mainland and artificial islands are being monitored since 2001. The maximum number of nests was observed in 2011 followed by 2010. Long term monitoring of nesting beaches will provide information on nesting population trends.

The location of nests influences hatching success and can also reflect the status of the nesting process. The analyses of data from the three islands revealed that 56.2 % of nests were found to be in upper zone (vegetation line), 30.2% of nests in middle zone and 13.4% in the lower zone close to high tide line.

Data on nesting ecology, including size and shape of nesting hawksbills, inter-nesting period, clutch-size, incubation and nesting success was collected to assess the status of nesting beaches and the health of nesting female hawksbills. There was a drop in hatching success of nests compared to the previous year which may have been attributed to several incidences of high tide (due to bad sea condition) that would have covered up the nests laid in middle and lower zones.

Challenges for conservation of sea turtles and their habitats include coastal development and marine pollution. Education and awareness programs were undertaken with the stakeholders to minimize impact of coastal activities on marine turtles. Discussion and interaction with teachers, government and non-government agencies have been carried out through workshops and meetings as part of priority actions under the IOSEA MoU on sea turtle conservation.

1.2.1 Describe any protocol or approaches practiced in your country, which you consider exemplary, for minimising threats to marine turtle populations and their habitats, which may be suitable for adaptation and adoption elsewhere. [BPR]

- A legal framework which specifies the protection of sea turtles (Federal Laws # 23 and 24, 1999).
- A ban on drift net fishing and the introduction of fishing gear modifications aimed at limiting incidental catches of sea turtles.
- A ban on trawling.
- Beach cleaning initiatives which are supported by stakeholders, NGOs and government agencies.
- Public awareness and education activities.
- Environmental Impact Assessments (EIA) for all developmental projects along the coastal areas of the UAE. Mitigations measures which address the protection of nesting sea turtles and associated beaches are incorporated into the environmental permitting process.
- Establishment of a representative network of Marine Protected Areas (one of which has a UNESCO Man and Biosphere (MAB) designation. Besides, 5 Ramsar sites were designated in UAE in the recent past.
- Rehabilitation of sick and injured turtles and maintenance of a turtle rehabilitation facility.
- Commitment to International Conventions which ban the trade of sea turtles (CITES).

1.3.1 Describe any socio-economic studies or activities that have been conducted among communities that interact with marine turtles and their habitats. [BPR, INF]

Socio-economic studies have been undertaken involving local communities and other stakeholders within the marine protected areas. These have included issues and perceptions pertaining to protection of endangered species including sea turtles and conservation of their habitats and the role that these groups could play in this regard.

A comprehensive socio-economic survey of the fishing community in the Emirate of Abu Dhabi was completed in 2014. This included the development of a predictive model to evaluate the impacts of fisheries regulations on socio-economic indicators for the fishing community. This enables the assessment of the socio-economic impact of regulations for net fisheries which are the main source of turtle mortality.

1.3.2 Which of these adverse economic incentives are underlying threats to marine turtles in your country? [TSH]

- High prices earned from turtle products relative to other commodities
- Lack of affordable alternatives to turtle products
- Ease of access to the turtle resource (eg. by virtue of proximity or ease of land/water access)
- Low cost of land near nesting beaches
- Low penalties against illegal harvesting
- Other1:

Other2:

Other3:

None of the above or Not Applicable

There are no adverse economic incentives associated with turtle harvesting in the country. Where there are cases of illegal harvest (poaching of eggs) it is associated with previously accepted cultural habits and there are no economic drivers associated with this activity.

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

YES NO NOT APPLICABLE (no adverse economic incentives exist)

The harvest of turtle eggs is illegal and enforcement of the law takes place, particularly in localities where it has occurred in the past. It should be noted, however, that the incentive is not economic and is more linked to historic cultural practices.

1.4.1 Indicate, and describe in more detail, the main fisheries occurring in the waters of your country, as well as any high seas fisheries in which flag vessels of your country participate, that could possibly interact with marine turtles. [INF]

a) Shrimp trawls: YES NO

All forms of trawling are banned by law in the UAE and there are no records of illegal trawling having taken place. Sea turtles have been caught by trawl nets used for fisheries resources assessment surveys conducted in 2002 and were released alive.

b) Set gill nets: YES NO

The use of set gillnets in shallow coastal areas, particularly in and around sea grass beds, are a threat to turtle populations. There are, however, no data on turtle mortalities associated with set gillnets.

c) Anchored Fish Aggregating Devices (FADs): YES NO

Anchored fish aggregating devices are not used in th UAE.

d) Purse seine (with or without FADs): YES NO

There have been a few small purse seine vessels operating in the UAE for a limited time. They tended to operate off-shore and target small pelagic species such as scads and anchovies. There are no records of turtle mortalities associated with these fisheries. Purse seine fisheries did not persist as they were not financially viable.

e) Longline (shallow or deepset): YES NO

The impact on marine turtles is unknown

f) Driftnet: YES NO

Small scale coastal driftnets (used illegally) are a threat to marine turtle populations, particularly when set at night time when visibility is poor. These are probably the greatest threat to marine turtles and also are the main source of mortality of the dugong.

g) Other1:

There are records of mortality of yearlings in the most commonly used fishing gear type (demersal traps). The incidence of mortality associated with this passive gear type is, however, likely to be low.

h) Other2:

None of the above

1.4.2 Please indicate the relative level of **fishing effort and **perceived impact** of each of the above fisheries on marine turtles (e.g. in terms of by-catch). [TSH]**

a) Shrimp trawls

Fishing effort:

RELATIVELY HIGH MODERATE RELATIVELY LOW **NONE** UNKNOWN

Perceived Impact:

RELATIVELY HIGH MODERATE RELATIVELY LOW **NONE** UNKNOWN

Source: There are no shrimp fisheries in the UAE.

b) Set gill nets

Fishing effort:

RELATIVELY HIGH MODERATE **RELATIVELY LOW** NONE UNKNOWN

Perceived Impact:

RELATIVELY HIGH MODERATE **RELATIVELY LOW** NONE UNKNOWN

Source: Set gillnets are sometimes used illegally as small scale drifting gillnets at night. There are no data on associated mortality rates of marine turtles although it is assumed to be moderate.

c) Anchored Fish Aggregating Devices (FADs)

Fishing effort:

RELATIVELY HIGH MODERATE RELATIVELY LOW **NONE** UNKNOWN

Perceived Impact:

RELATIVELY HIGH MODERATE RELATIVELY LOW **NONE** UNKNOWN

Source: Fish aggregating devices are not used in the fisheries of the UAE.

d) Purse seine (with or without FADs)

Fishing effort:

RELATIVELY HIGH MODERATE RELATIVELY LOW **NONE** UNKNOWN

Perceived Impact:

RELATIVELY HIGH MODERATE RELATIVELY LOW **NONE** UNKNOWN

Source: Purse seines are not used in the fisheries of the UAE. Although they had been used on a small scale in the past, the fisheries were not financially viable. There is no historic data available relating to sea turtle by-catch.

e) Longline (shallow or deepset)**Fishing effort:**

RELATIVELY HIGH MODERATE **RELATIVELY LOW** NONE UNKNOWN

Perceived Impact:

RELATIVELY HIGH MODERATE RELATIVELY LOW **NONE** UNKNOWN

Source: Only surface long lines are used. The gears however are relatively small in size (in terms of length) and their use is strictly limited. Furthermore these gears are banned in protected areas and areas where large concentration of sea turtles and other endangered species occur.

There is no data relating to by-catch.

f) Driftnet**Fishing effort:**

RELATIVELY HIGH MODERATE **RELATIVELY LOW** NONE UNKNOWN

Perceived Impact:

RELATIVELY HIGH MODERATE **RELATIVELY LOW** NONE UNKNOWN

Source: All types of drift nets are banned by law in the UAE, however, the illegal use of small scale coastal driftnets are a threat to turtle populations, particularly when used at night time when visibility is low.

g) Other1 (from 1.4.1): Demersal traps.**Fishing effort:**

RELATIVELY HIGH MODERATE RELATIVELY LOW NONE UNKNOWN

Perceived Impact:

RELATIVELY HIGH MODERATE **RELATIVELY LOW** NONE UNKNOWN

Source: The most important gear type in the commercial fishery in the UAE is the dome shaped wire trap which is used to target demersal species. Whilst sea turtle mortality is perceived to be relatively low in general, experimental fishing trials have revealed that mortality of yearlings can occur in demersal fish traps.

h) Other2 (from 1.4.1): Inter tidal fence nets.**Fishing effort:**

RELATIVELY HIGH MODERATE **RELATIVELY LOW** NONE UNKNOWN

Perceived Impact:

RELATIVELY HIGH MODERATE **RELATIVELY LOW** NONE UNKNOWN

Source: Most of the gears employed in the fishery in UAE are active gears and sea turtles or any other animals trapped are instantly released. Some of the few fixed gears used such as the traditional al Hadhra (intertidal fence net) are routinely tended and any trapped turtles are released. Furthermore, the size of the trap doors of the al Hadhra tend to limit the possibility of larger turtles entering the net.

1.4.3 Describe any illegal fishing that is known to occur in or around the waters of your country that may impact marine turtles. Describe the measures being taken to deal with this problem and any difficulties encountered in this regard. [TSH]

Although drift nets are banned, small scale coastal driftnets are set, particularly at night time and are a threat to marine turtle populations, especially when set in or around sea grass beds. In addition, some monofilament nets are used (although banned by law) eg. for demersal crab fisheries, lost monofilament gear is a particular threat to turtle populations. Large industrial scale drift nets are a major threat to marine turtle populations in neighbouring countries.

The local problem is addressed by policing which is conducted by authorities; Critical Infrastructure and Coastal Protection Authority (CICPA) and Marine Protected Area staff eg. Environment Protection Agency (EPA).

1.4.4 Which of the following methods are used by your country to minimise incidental capture/mortality of marine turtles in fishing activities? [IND]

a) **Appropriate handling** of incidentally caught turtles (e.g. resuscitation or release by fishers using equipment such as de-hooking, line cutting tools and scoop nets)

YES NO NOT APPLICABLE

Fishermen release live caught turtles in gear by hand without the use of any specialized equipment.

b) **Devices that allow the escape of marine turtles** (e.g. turtle excluder devices (TEDs) or other measures that are comparable in effectiveness)

YES **NO** NOT APPLICABLE

There are no trawlers operating in the UAE so the use of TED's is not applicable.

c) **Measures to avoid encirclement** of marine turtles in purse seine fisheries

YES **NO** NOT APPLICABLE

There are no purse seine fisheries currently operating in the UAE.

d) **Appropriate combinations** of hook design, type of bait, depth, gear specifications and fishing practices

YES **NO** NOT APPLICABLE

There is very limited information on which to base fishing gear regulations to reduce by-catch of sea turtles. However, certain gears (drift nets, trawls) and materials (monofilament) are banned for a variety of reasons including the detrimental impact that they have on sea turtle populations.

e) **Monitoring and recovery of fish aggregating devices** (FADs)

YES NO **NOT APPLICABLE**

Fish aggregating devices are not used in the fisheries of the UAE.

f) **Net retention and recycling schemes**

YES **NO** NOT APPLICABLE

There are no net retention of recycling schemes in the UAE.

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

YES NO NOT APPLICABLE

The UAE implements spatial fishery closures through marine protected areas and biosphere reserves. Whilst there are seasonal fishery closures for some species and gear types, these are implemented in line with fishery management objectives as opposed to turtle conservation objectives.

h) **Effort management control**

YES **NO** NOT APPLICABLE

Fishing effort is capped and the effort constraint is implemented through a licensing scheme. Limits on the number of fishing gears are also implemented. These management regulations are associated with rebuilding depleted fish stocks and not related to the reduction of turtle by-catch.

Other (list and explain):

None of the above

1.4.5 Which of the following programmes has your country developed - in consultation with the fishing industry and fisheries management organisations - to promote implementation of measures to minimise incidental capture and mortality of turtles in national waters and in the high seas? [IND]

Onboard observer programmes

YES NO **NOT APPLICABLE**

The artisanal vessels used in the fisheries of the UAE are small in size and not commercial in nature. Sea turtle by-catch is not a major issue and as such there haven't been any on-board observer programmes developed by fisheries management authorities.

Vessel monitoring systems

YES NO NOT APPLICABLE

A vessel monitoring system is in place in the Emirate of Abu Dhabi, however, it has been implemented in response to national security priorities and not fisheries management or marine wildlife conservation objectives.

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

YES NO NOT APPLICABLE

Inspections are carried out of the fishing gear on vessels at control points in ports by the Critical Infrastructure and Coastal Protection Authority (CICPA). However, the rate of inspection and level of enforcement and compliance are as yet not determined.

Training programmes / workshops to educate fishers

YES NO NOT APPLICABLE

Meetings have been held with stakeholders including fishermen to educate them in relation to environmental issues and the importance of wildlife conservation. These outreach and extension activities have probably had a limited impact as it has been difficult to communicate because of the many languages and dialects spoken by the largely expatriate fishing community.

Informative videos, brochures, printed guidelines etc.

YES NO NOT APPLICABLE

Some educational materials (brochures and videos) relating to turtle conservation have been produced.

Other (list and explain):

YES NO NOT APPLICABLE

None of the above

1.4.6 Are the mitigation measures described in 1.4.4 and 1.4.5, periodically reviewed and evaluated for their efficacy? [SAP]

YES **NO** UNSURE

None of the measures used to mitigate impacts on marine turtles are periodically reviewed for their efficacy. It would be very difficult to do so as the fisheries in the UAE do not have major interaction with marine turtles and data collection to independently evaluate the initiatives would be challenging. Furthermore, some of the initiatives like the bans on trawling, driftnets and monofilament netting are precautionary measures implemented to conserve marine habitats and wildlife in general.

1.4.7 In your country, what types of data collection, research and development have been undertaken to support the reduction of marine turtle incidental catch (while taking into consideration the impact of various mitigation measures on other species)? [SAP]

Initial research included identification, quantification and documentation of threats to sea turtles. This was followed by the establishment of a monitoring program to document turtle mortality and its causes. The results of these studies are used to direct public awareness activities and to implement regulatory measures.

1.4.8 Has your country exchanged information and provided technical assistance (formally or informally) to other Signatory States to promote the activities described in 1.4.4, 1.4.5 and 1.4.7 above? [SAP]

YES NO UNSURE

This has been done through meetings and workshops held in the UAE and other countries in which UAE participated and through publications and reporting to a variety of organizations including the IOSEA secretariat.

1.4.9 What legislative and practical measures has your country taken in support of UN General Assembly Resolution 46/215 concerning the moratorium on the use of large-scale driftnets? [SAP]

Drift nets are banned by law in the UAE.

1.5.1 Does your country have legislation to prohibit direct harvest and domestic trade in marine turtles, their eggs, parts and products; and to protect important turtle habitats? [IND]

YES NO UNSURE

Federal Laws No 23 and 24 (1999) prohibit the harvest of marine turtles and eggs and associated domestic trade. Local Emiri Decrees protect important turtle habitats within Marine Protected Areas.

1.5.2 Which, among the following list, are economic uses and cultural values of marine turtles in your country? Please rate the relative prevalence / importance of each consumptive or non-consumptive use. [INF]

USES / VALUES

RELATIVE PREVALENCE / IMPORTANCE

Meat consumption

YES NO

HIGH MODERATE **LOW** UNKNOWN

Meat consumption has been practiced traditionally in the past, though it is unknown whether it persists currently.

Egg consumption

YES NO

HIGH MODERATE **LOW** UNKNOWN

Egg consumption has been practiced traditionally in the past and anecdotal evidence suggests it still occurs currently although it is illegal.

Shell products

YES **NO**

HIGH MODERATE LOW **UNKNOWN**

There are no uses of turtle shell products in the UAE for ornamental decoration etc.

Fat consumption

YES **NO**

HIGH MODERATE LOW UNKNOWN

There is no record or anecdotal information that specifically suggests that turtle fat is consumed in the UAE.

Traditional medicine

YES NO

HIGH MODERATE LOW UNKNOWN

There is no record or anecdotal information that specifically suggests that turtles are used for traditional medicine in the UAE.

Eco-tourism programmes

YES NO

HIGH MODERATE LOW UNKNOWN

To date there haven't been any eco-tourism programs developed that relate to sea turtles, however, eco-tourism is under development in the UAE and this may be something that develops in the future.

Cultural / traditional significance

YES NO

HIGH MODERATE LOW UNKNOWN

Whilst turtle hunting may have formed a part of the activities of coastal communities in the past, it was never a major cultural or traditional activity.

Other

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

Level of harvest:

RELATIVELY HIGH MODERATE RELATIVELY LOW NONE UNKNOWN

Impact of harvest:

RELATIVELY HIGH MODERATE RELATIVELY LOW NONE UNKNOWN

Source of information:

There is no traditional harvest allowed of marine turtles and their eggs. There are some anecdotal reports of the illegal harvest of turtle eggs although the activity and associated impact is probably limited.

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

YES NO UNKNOWN

As harvest is illegal and poaching perceived to be extremely limited, there has been no need to implement management programs to limit the levels of intentional harvest.

1.5.5 Describe any management agreements negotiated between your country and other States in relation to sustainable levels of traditional harvest, to ensure that such harvest does not undermine conservation efforts. [BPR]

This is not applicable to the UAE, as such there are no agreements to date.

1.6.1 First, select one of the options at left to indicate whether or not your country has any of the following measures in place to minimise the mortality of eggs, hatchlings and nesting females. If yes, then estimate the relative effectiveness of these measures. [IND, SAP]

MEASURES

RELATIVE EFFECTIVENESS

Monitoring/protection programmes

YES NO N/A

EXCELLENT **GOOD** LOW UNKNOWN

Turtle nesting beaches have been monitored in the UAE since 2000. The monitoring is combined with beach cleaning which intensifies in advance of the nesting season.

Education/awareness programmes

YES NO N/A

EXCELLENT **GOOD** LOW UNKNOWN

Education and awareness programmes have involved a variety of stakeholders including fishermen, teachers, students and island and coastal communities. These programmes started in 2003 and are currently on-going.

Egg relocation/hatcheries

YES **NO** N/A

EXCELLENT GOOD LOW UNKNOWN

Egg relocation and hatcheries are not used in the UAE as measures to minimise the mortality of eggs and hatchlings. Though there has been instances when egg relocation was done in Dubai coastline.

Predator control

YES **NO** N/A

EXCELLENT GOOD LOW UNKNOWN

There have been no predator control programs in the UAE to minimise the mortality of nesting turtles, eggs and hatchlings.

Vehicle / access restrictions

YES NO N/A

EXCELLENT GOOD **LOW** UNKNOWN

Some off shore islands have restrictions including barriers to prevent access of vehicles to nesting beaches.

Removal of debris / clean-up

YES NO N/A

EXCELLENT **GOOD** LOW UNKNOWN

Physical removal of debris from nesting beaches is regularly conducted prior to the nesting season.

Re-vegetation of frontal dunes

YES NO N/A

EXCELLENT GOOD LOW UNKNOWN

The dune vegetation is protected at some nesting beaches, for example, by using board walks. However, there have been no re-vegetation initiatives implemented.

Building location/design regulations

YES NO N/A

EXCELLENT GOOD LOW UNKNOWN

As part of a variety of mitigation measures, regulations have been developed including set-back lines, which have been imposed on various coastal development projects to mitigate impact on turtle nesting activity.

Light pollution reduction

YES NO N/A

EXCELLENT GOOD LOW UNKNOWN

As part of a variety of mitigation measures, regulations have been developed to mitigate the impact of lighting on turtle nesting activity.

Other (list and rate them)

YES NO N/A

1.6.2 Has your country undertaken any evaluation of its nest and beach management programmes? [\[SAP\]](#)

YES NO NOT APPLICABLE

Whilst a comprehensive national monitoring program for turtle nesting beaches is in place, it does not independently assess the nest and beach management regulations.

OBJECTIVE II. PROTECT, CONSERVE AND REHABILITATE MARINE TURTLE HABITATS

2.1.1 What is being done to protect critical habitats *outside* of established protected areas? (NB: It is assumed that legislation relating to established protected areas will have been described in Section 1.5.1) [\[BPR, SAP\]](#)

Federal Law 23 and 24 (1999) applies to the whole of UAE and its natural areas including sea turtle nesting and foraging habitats. Also, there is a requirement of EIA for all development projects.

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

YES NO NOT APPLICABLE

Regular monitoring and reporting of critical coastal and marine habitats are done through various research programs. All development projects require an environmental permit which often involves an Environmental Impact Assessment (EIA) and associated monitoring.

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. [SAP]

YES NO NOT APPLICABLE

A long term monitoring program of water quality is in place along with water quality standards which are currently being revised to be in line with international best practice.

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

YES NO NOT APPLICABLE

Federal Law no. 23 and 24 (1999).

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

YES NO NOT APPLICABLE (no degraded coral reefs)

There are no direct efforts to rehabilitate degraded marine turtle habitats. Still, there is an on-going artificial reef experimental program which is looking at the utility of different types of designs and materials for marine biodiversity conservation. The focus is on providing management authorities with empirical information on artificial reefs in order to facilitate the environmental permitting process.

2.2.2 Are efforts being made to recover degraded mangrove habitats that are important for turtles? If yes, give details (location, duration, effectiveness, lessons learned, future plans etc.) [IND, SAP]

YES NO NOT APPLICABLE (no mangrove habitats important for turtles)

There are programs to rehabilitate mangroves in general. In executing these programs coordination is done to ensure that nesting beaches are not compromised. Efforts have focussed on mangrove sapling plantation primarily in coastal areas of the mainland.

Location: Mostly around Abu Dhabi and western region of Abu Dhabi.

Duration: Recently Since 2009. However there is record of mangrove plantation 35 years back.

Lessons learned: Program is successful.

Future Plan: Will be done as and when necessary to mitigate impact of coastal activities.

2.2.3 Are efforts being made to recover degraded sea grass habitats? If yes, give details (location, duration, effectiveness, lessons learned, future plans etc.). [IND, SAP]

YES NO NOT APPLICABLE (no degraded sea grass habitats)

There have been few experimental studies undertaken by ADNOC group of companies in the UAE to recover degraded sea grass habitats.

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

3.1.1 Give a list of available literature that includes baseline information from studies carried out in your country on marine turtle populations and their habitats. [INF]

Environment Agency – Abu Dhabi (EAD) turtle monitoring reports.

Environment Agency – Abu Dhabi (EAD) Marine Turtles Monitoring Annual Report 2013.

Abu Dhabi Global Environmental Data Initiative (AGEDI) Blue Carbon Report 2013.

Emirates Wildlife Society/Worldwide Fund for Nature (EWS/WWF) Satellite Tagging Programme report.

Annual Report of the Environmental Protection Authority of Sharjah (EPA).

Emirates Marine Environmental Group (EMEG) Technical Reports.

3.1.2 Have long-term monitoring programmes (i.e. of at least 10 years duration) been initiated or planned for priority marine turtle populations frequenting the territory of your country? [IND, BPR]

YES **NO** **UNSURE**

Monitoring has been on-going since 2000 and has long term perspective. The monitoring includes turtle nesting surveys, hatching success surveys and abundance surveys as part of a marine wildlife monitoring programme.

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

YES **NO** **UNSURE**

Whilst there have been some samples collected, the genetic identity of marine turtle populations in the UAE has still not been characterized.

3.1.4 Which of the following methods have been or are being used to try to identify migration routes of turtles? Use the text boxes to provide additional details. [INF, PRI]

Tagging **YES** **NO**

Conventional and satellite tagging have been conducted.

Satellite tracking **YES** **NO**

Satellite tracking of post nesting hawksbill turtles has been conducted as well as a few foraging green turtles.

Other

None of the above

3.1.5 Have studies been carried out on marine turtle population dynamics and survival rates (e.g. including studies into the survival rates of incidentally caught and released turtles)? [INF, PRI]

YES NO UNSURE

Population estimates from aerial surveys of marine turtles have been made since 2001. Hatching success studies have been conducted since 2001.

3.1.6 Has research been conducted on the frequency and pathology of diseases in marine turtles? [INF, PRI]

YES NO UNSURE

Whilst there has been no research been conducted on the frequency and pathology of diseases in marine turtles, barnacle infestations are treated on a regular basis, particularly during the summer months.

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

YES NO UNSURE

3.2.1 List any regional or sub-regional action plans in which your country is already participating, which may serve the purpose of identifying priority research and monitoring needs. [INF]

The Marine Turtle Conservation Action Plan under the IOSEA Sea Turtle MOU.

3.2.2 On which of the following themes have collaborative studies and monitoring been conducted? Use the text boxes to describe the nature of this international collaboration or to clarify your response. Answer 'NO' if the studies/monitoring undertaken do not involve international collaboration. [INF, PRI]

a) Genetic Identity YES NO NOT APPLICABLE

Some samples have been collected although processing and analyses are pending.

b) Conservation status YES NO NOT APPLICABLE

Conservation Action Plan under the IOSEA Sea Turtle MOU.

c) Migrations YES NO NOT APPLICABLE

Gulf satellite tagging program conducted in collaboration with EWS/WWF in 2013.
Collaboration with Oman on Satellite Tagging Program for sea turtles (2003).
Collaboration with WWF-Pakistan on Satellite Tagging of Sea Turtles (2001, 2005).

d) Other biological and ecological aspects YES NO NOT APPLICABLE

Other

3.3.1 List, in order of priority, the marine turtle populations in your country in need of conservation actions, and indicate their population trends. [PRI]

The hawksbill turtle (*Eretmochelys imbricata*) and the green turtle (*Chelonia mydas*), predominantly occur in the waters of UAE. Both the species use UAE waters for foraging and one species, the hawksbill, nests on the sandy beaches that have outcrops of vegetation on several offshore islands.

Please see corresponding graph: <http://bit.ly/1q1PfIS>

The priority conservation actions are:

- Protection of nesting and foraging areas of Hawksbill Turtles (Nesting as well as foraging species of UAE)
- Protection of foraging areas of Green Turtles (Foraging species in UAE waters)

3.3.2 Are research and monitoring activities, such as those described above in Section 3.1 periodically reviewed and evaluated for their efficacy? [SAP]

YES NO UNSURE

The monitoring programme undergoes an annual audit.

3.3.3 Describe how research results are being applied to improve management practices and mitigation of threats (in relation to the priority populations identified in 3.3.1, among others). [SAP]

Trends in annual nesting patterns provide input to review site specific conservation actions.

3.4.1 Has your country undertaken any initiatives (nationally or through collaboration with other Range States) to standardise methods and levels of data collection? [BPR, INF]

YES NO UNSURE

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

OFTEN (SYSTEMATICALLY) OCCASIONALLY RARELY NEVER

3.4.3 If your country shares scientific and technical information and expertise with other Range States, what mechanisms have commonly been used for this purpose? Comment on any positive benefits/outcomes achieved through these interactions. [INF]

Regional and International workshops and conferences and obligations under the IOSEA Turtle MOU for reporting act as mediums for the exchange of information.

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

YES NO UNSURE

Marine turtle distribution and nesting data is made available through the Environment Agency – Abu Dhabi (EAD) website and Abu Dhabi Global Environmental Data Initiative (AGEDI) data portal.

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

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

- Brochures and posters specific to various stakeholders such as students, general public and fishermen.
- Marine school programs visit to sea turtle foraging habitats.
- Regular media interactions and reports.
- Annual turtle release program (rescued and rehabilitated) by Dubai Rehab center.

4.1.2 Which of the following groups have been the targets of these focused education and awareness programmes described in above in Section 4.1.1? [PRI, INF]

- Policy makers
- Fishing industry
- Local/Fishing communities
- Indigenous groups
- Tourists
- Media
- Teachers
- Students
- Military, Navy, Police
- Scientists
- Other:
- None of the above

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

YES NO

Currently no, but a visitor/ training centre is planned for the Marawah Marine Biosphere Reserve. Dubai and Sharjah EPA have small facilities.

4.2 Alternative livelihood opportunities [IND, BPR] Describe initiatives already undertaken or planned to identify and facilitate alternative livelihoods (including income-generating activities) for local communities.

There are no livelihood dependencies associated with marine turtles so this is not applicable in the UAE.

4.3.1 Describe initiatives already undertaken or planned by your country to involve local communities, in particular, in the planning and implementation of marine turtle conservation programmes. Please include details of any incentives that have been used to encourage public participation, and indicate their efficacy. [BPR, IND]

Meetings have been held with coastal communities on the conservation of sea turtles and their habitat. Additionally, the designation of MPA's involved extensive stakeholder engagement.

4.3.2 Describe initiatives already undertaken or planned to involve and encourage the cooperation of Government institutions, NGOs and the private sector in marine turtle conservation programmes. [IND, BPR]

Beach cleaning, sea turtle rescue and rehabilitation, sponsorship for research, monitoring and education and awareness programs.

The following agencies are involved with, cooperate and/or participate in sea turtle conservation issues:

Emirates Wildlife Society-World Wildlife Fund for Nature (EWS-WWF)

Emirates Marine Environmental Group (EMEG)

Supreme Petroleum Council (SPC)

Tourism Development and Investment Company (TDIC)

Sharjah Environmental Protection Agency (EPA)

OBJECTIVE V. ENHANCE NATIONAL, REGIONAL AND INTERNATIONAL COOPERATION

5.1.1 Has your country undertaken a national review of its compliance with Convention on International Trade in Endangered Species (CITES) obligations in relation to marine turtles? [SAP]

YES NO NOT APPLICABLE

This is conducted as part of an on-going and regular review

5.1.2 Does your country have, or participate/cooperate in, CITES training programmes for relevant authorities? [SAP]

YES NO NOT APPLICABLE

Several workshops in national and regional (west Asia) level involving customs, police, technical groups.

5.1.3 Does your country have in place mechanisms to identify international illegal trade routes (for marine turtle products etc.)? Please use the text box to elaborate on how your country is cooperating with other States to prevent/deter/eliminate illegal trade. [SAP]

YES NO NOT APPLICABLE

Illegal trade data is shared with CITES secretariat.

5.1.4 Which international compliance and trade issues related to marine turtles has your country raised for discussion (e.g. through the IOSEA MoU Secretariat, at meetings of Signatory States etc.)? [INF]

Not applicable.

5.1.5 Describe measures in place to prevent, deter and eliminate **domestic illegal trade in marine turtle products, particularly with a view to enforcing the legislation identified in Section 1.5.1. [INF]**

All such trade is banned by Federal Law 24 (1999) and offenders are liable for prosecution.
Awareness program with stakeholders including fishermen.
Social media campaign.
Awareness workshops.

5.2.1 Has your country already developed a national **action plan or a set of **key management measures** that could eventually serve as a basis for a more specific action plan at a national level? [IND]**

YES NO

The National Action Plan was developed in 2004 but not pursued subsequent to the implementation of the IOSEA Action Plan.

5.2.2 From your country's perspective, which **conservation and management activities, and/or which particular **sites or locations**, ought to be among the highest priorities for action? [PRI]**

IOSEA Sea Turtle Action Plan
IOSEA Network of important sea turtle sites (Bu Tinah and Zirkuh)

List of Priorities:

- Continue to gather information on the nature and magnitude of threats through implementation of a regular monitoring program.
- Monitoring and protection of critical sea turtle habitats such as nesting beaches, foraging areas and migratory corridors.
- Clean-up programs along the known and potential turtle nesting beaches.
- Research and monitoring of coral and seagrass ecosystems.
- Management of Marine Protected Areas.
- Monitoring of nesting and foraging populations.
- Focused education and awareness programs for target groups (e.g. policy makers, teachers, schools, fishing communities, media).
- Stakeholder engagement on management issues.

5.2.3 Please indicate, from your country's standpoint, the extent to which the following **local management issues require **international** cooperation in order to to achieve progress. [PRI]**

- | | |
|---|--|
| Illegal fishing in territorial waters | <input type="checkbox"/> ESSENTIAL <input checked="" type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL |
| Incidental capture by foreign fleets | <input type="checkbox"/> ESSENTIAL <input checked="" type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL |
| Enforcement/patrolling of territorial waters | <input type="checkbox"/> ESSENTIAL <input type="checkbox"/> IMPORTANT <input checked="" type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL |
| Hunting/harvest by neighboring countries | <input type="checkbox"/> ESSENTIAL <input type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input checked="" type="checkbox"/> NOT AT ALL |
| Poaching, illegal trade in turtle projects | <input type="checkbox"/> ESSENTIAL <input type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input checked="" type="checkbox"/> NOT AT ALL |
| Development of gear technology | <input type="checkbox"/> ESSENTIAL <input type="checkbox"/> IMPORTANT <input checked="" type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL |
| Oil spills, pollution, marine debris | <input type="checkbox"/> ESSENTIAL <input checked="" type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL |

Training / capacity-building	<input type="checkbox"/> ESSENTIAL <input checked="" type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL
Alternative livelihood development	<input type="checkbox"/> ESSENTIAL <input type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input checked="" type="checkbox"/> NOT AT ALL
Identification of turtle populations	<input checked="" type="checkbox"/> ESSENTIAL <input type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL
Identification of migration routes	<input checked="" type="checkbox"/> ESSENTIAL <input type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL
Tagging / satellite tracking	<input type="checkbox"/> ESSENTIAL <input checked="" type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL
Habitat studies	<input type="checkbox"/> ESSENTIAL <input checked="" type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL
Genetics studies	<input checked="" type="checkbox"/> ESSENTIAL <input type="checkbox"/> IMPORTANT <input type="checkbox"/> LIMITED <input type="checkbox"/> NOT AT ALL

5.3.1 Identify existing frameworks/organisations that are, or could be, useful mechanisms for cooperating in marine turtle conservation at the sub-regional level. Please comment on the strengths of these instruments, their capacity to take on a broader coordinating role, and any efforts your country has made to enhance their role in turtle conservation. [INF, BPR]

IOSEA Marine Task force in the Western Indian Ocean. Capacity building initiatives could be enhanced, development of regional database including tag returns, nesting sites and foraging areas. The IUCN Marine Turtle Specialist Group (MTSG) requires regional status assessments of marine turtles.

5.3.2 Has your country developed, or is it participating in, any networks for cooperative management of shared turtle populations? [BPR, INF]

YES **NO** NOT APPLICABLE

5.3.3 What steps has your country taken to encourage Regional Fishery Bodies (RFBs) to adopt marine turtle conservation measures within Exclusive Economic Zones (EEZs) and on the high seas? [SAP]

None.

5.4.1 Describe your country's needs, in terms of human resources, knowledge and facilities, in order to build capacity to strengthen marine turtle conservation measures. [PRI]

Subject matter needs include:

- Biology and ecology of sea turtles.
- Assessment and monitoring methods for sea turtles.
- Management plan development.
- Education and awareness development.
- Marine Turtle by-catch assessment.

5.4.2 Describe any training provided in marine turtle conservation and management techniques (e.g. workshops held, training manuals produced etc.), and indicate your plans for the coming year. [PRI, INF]

Informal meetings and training workshops of volunteers and staffs at EMEG.

5.4.3 Specifically in relation to [capacity-building](#), describe any partnerships developed or planned with universities, research institutions, training bodies and other relevant organisations. [\[BPR\]](#)

In-house capacity building programs in place at EAD, EPA and EMEG.

5.5.1 National policies and laws concerning the conservation of marine turtles and their habitats will have been described in Section 1.5.1. Please indicate their effectiveness, in terms of their practical application and enforcement. [\[SAP, TSH\]](#)

Moderately effective, could be improved by enhanced monitoring, control and surveillance.

5.5.2 Has your country conducted a review of policies and laws to address any gaps, inconsistencies or impediments in relation to marine turtle conservation? If not, indicate any obstacles encountered in this regard and when this review is expected to be done. [\[SAP\]](#)

YES NO UNSURE

Federal Law 23 and 24 (1999) are under review.

5.5.3 From the standpoint of law enforcement, has your country experienced any difficulties achieving cooperation to ensure compatible application of laws across and between jurisdictions? [\[TSH\]](#)

YES NO UNSURE

OBJECTIVE VI. PROMOTE IMPLEMENTATION OF THE MoU INCLUDING THE CONSERVATION AND MANAGEMENT PLAN

6.1.1 What has your country already done, or will it do, to encourage other States to sign the IOSEA MoU? [\[INF\]](#)

The UAE advocates non-signatory states to encourage joining th IOSEA MOU.

In February 2014 a regional workshop was conducted in collaboration of Ministry of Environment & Water and IFAW for building the capacity and beside it 2 countries signed the IOSEA MoU and 9 countries signed the sharks MoU.

6.1.2 Is your country [currently](#) favourable, in principle, to amending the MoU to make it a legally binding instrument? [\[INF\]](#)

YES NO NO VIEW

6.1.3 Would your country be favourable, over a [longer time horizon](#), to amending the MoU to make it a legally-binding instrument? [\[INF\]](#)

YES NO NO VIEW

6.2 Secretariat and Advisory Committee

6.2.1 What efforts has your country made, or can it make, to secure funding to support the core operations of the IOSEA MoU (Secretariat and Advisory Committee, and related activities)? [IND]

6.3.1 What funding has your country mobilised for domestic implementation of marine turtle conservation activities related to the IOSEA Marine Turtle MoU? Where possible, indicate the specific monetary values attached to these activities/programmes, as well as future plans. [IND]

Annual Budget from Government as part of marine conservation and monitoring programmes in general. UAE supports CMS dugong secretariat, EWS-WWF and IUCN.

6.3.2 Has your country tried to solicit funds from, or seek partnerships with, other Governments, major donor organisations, industry, private sector, foundations or NGOs for marine turtle conservation activities? [IND]

YES NO

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

Not applicable.

6.4.1 Has your country designated a lead agency responsible for coordinating national marine turtle conservation and management policy? If not, when is this information expected to be communicated to the IOSEA MoU Secretariat? [IND]

YES NO

Ministry of Environment and Water (MoEW).

6.4.2 Are the roles and responsibilities of all government agencies related to the conservation and management of marine turtles and their habitats clearly defined? [IND]

YES NO UNSURE

6.4.3 Has your country ever conducted a review of agency roles and responsibilities? If so, when, and what was the general outcome? If not, is such a review planned and when? [SAP],

YES NO UNSURE

Comments/suggestions to improve the present reporting format:

Additional information not covered above: