UN environment CMS

MEMORANDUM OF UNDERSTANDING ON THE CONSERVATION AND MANAGEMENT OF MARINE TURTLES AND THEIR HABITATS OF THE INDIAN OCEAN AND SOUTH-EAST ASIA

CMS/IOSEA/MOS8/Inf.7.1.d

28 August 2019

Original: English

8TH MEETING OF THE SIGNATORY STATES
Da Nang, Viet Nam, 21-25 October 2019
Agenda Item 9.1

JORDAN – NATIONAL REPORT 2019

(Prepared by Jordan)

IOSEA MARINE TURTLES MEMORANDUM OF UNDERSTANDING - NATIONAL REPORTING 2019

IOSEA Marine Turtles MoU - National Reports

The purpose of completing the national report is to provide information on your country's implementation of the IOSEA Marine Turtle MoU including, as far as possible, contributions of cooperating non-governmental partners. Implementation will be assessed in terms of the six objectives of the Conservation and Management Plan (CMP). The online questionnaire is divided into these six main objectives, and asks specific questions in relation to the activities that need to be carried out to fulfil those objectives.

Please answer all questions as fully and as accurately as possible. It may seem time-consuming, but once you have completed the first report, the next time will be much easier because you can simply revise your existing report online. Comprehensive responses to the questions posed in Section 1.4 should satisfy many of the reporting requirements of the 2004 FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations, thereby avoiding duplication of effort.

Description text is provided below some of the questions to explain what information needs to be provided. Text boxes can be expanded to accommodate longer answers or to explain and provide additional information, beyond what is requested. Details of future plans are especially encouraged. Wherever possible, please try to indicate the source of information used to answer a particular question, if a published reference is available. Remember that you are sharing information with other countries about your progress, so that it may be of benefit to them. At the same time, you may find it useful to look at other countries' reports to get ideas for marine turtle conservation that might be adapted to your context.

When working on the online questionnaire, 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. Feel free to attach additional material (published reports, maps etc) to this questionnaire.

Throughout the questionnaire, alongside each question you will find one or more 3-letter abbreviations within square brackets. These are used to indicate the purpose for which the information provided will be used in the subsequent analysis of all of the national reports, as shown in the following table.

To some extent, the order in which these different types of information are listed below is a reflection of their importance – ranging from critical indicators of performance to factual details that are merely informative.

Abbreviation	**Type**	**Treatment / Purpose**
IND	Indicator	The information provided serves, in and of itself, as a key indicator of successful implementation or of pre-requisites for same (eg. of core actions undertaken, resource availability, capacity etc.)
PRI	Priorities	The collective data will be synthesized to give an indication of what has been done already (helping to avoid duplication of effort); what is generally not being done (gaps that need to be addressed); and what interventions or specific assistance may be required.
TSH	Trouble-shooting	

Particular implementation problems and issues (possibly of special interest to a small group of countries) are identified/highlighted with a view to stimulating remedial action in the short-term.

BPR

Best practice

Well-documented examples of best practices / success stories will be compiled and presented as approaches that other Signatory States might consider pursuing (ie adopting or adapting to suit their own circumstances).

SAP

Self-Appraisal

Self-assessment of effectiveness and completeness of actions undertaken – intended to stimulate reflection within a given Signatory State on what more could or should be done in relation to a particular activity.

INF

Information

The information will be collected and compiled, with little or no modification, mainly for purpose of sharing of information that could be of interest or value to other readers and/or other analyses.

GENERAL INFORMATION

Signatory State:
Which agency or institution has been primarily responsible for the preparation of this report?
› Faculty of Marine Sciences-Jordan University of Aqaba, Marine science station, Aqaba-Jordan

List any other agencies, institutions, or NGOs that have provided input:
› Environment department of Aqaba Special Economic Zone Authority, Aqaba Marine Park Authority and Royal Society for Protection of Marine Environment (JREDS)

Memorandum in effect in Signatory State since (dd/mm/yyyy):
› 18/03/2004

This report was last modified (dd/mm/yyyy):
› 29/04/2014

Designated Focal Point (and full contact details):
› Environment commissioner,
Environment department, Aqaba Special Economic Zone Authority (ASEZA), 77110, Aqaba-Jordan
+962 (3) 209 1000

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

1.1 Introduction to marine turtle populations and habitats, challenges and conservation efforts

Please introduce and summarise, in an abstract of less than a page, the marine turtle populations and their habitats in your country. Comment on their status and highlight the main conservation challenges and achievements to date. It is not necessary to list here by name the individual nesting beaches, feeding areas and developmental habitats that are important for marine turtles in your country, as this information can be generated from the 'Site-Threat' data sheets to be completed in Annex 1. **[INF]**

› A preliminary study was conducted on the population of Sea Turtles in Gulf of Aqaba. Data were collected by the help of sport and volunteer divers to Aqaba. Areas inspected were mostly distributed along the southern part of the Gulf of Aqaba. Sites were clearly identified as the major diving spots along the Jordanian coast. Obviously, most of the dives during which the data on turtles have been collected were in coral reef habitats. Most of the observed turtles were belong to the Hawksbill species revealing that it is the dominant turtle species in the Jordanian Gulf of Aqaba. More over, all observations were made on adult turtles of Hawksbill. Non has been recorded on other development stages. Other turtle species were rarely observed such as the green turtle.

1.2 Best practice approaches to minimizing threats

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. **[BRP]**

› The followings are practiced regulatory
1) Beach patrolling by rangers of Aqaba Marine Park (AMP)
2) Coastal water patrolling at the fishing areas by AMP
3) Awareness and outreach campaigns to fishermen and sea visitors
The main threats to marine turtle populations range from incidental capture to threats of fishing mortality as well as rare pollution incidents. Best practice against are:
a) Reducing threats of commercial fisheries, coastal urban development
b) Promote turtle rescue and rehabilitation turtles training to public and beach users
c) Promote out reach and public awareness activities.
Jordan's NAP has considered a further set of actions and recommendations. It include protecting turtle feeding habitat, research and monitoring, community participation in conservation activities,
the capacity of national agencies to carry out the necessary management activities and to enforce the environment law no. 21, 22 at ASEZA.

1.3 Programmes to correct adverse economic incentives

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]**

Elaborate on the nature of the socio-economic study/ activity undertaken, the results obtained (successful or otherwise) and the desirability/ suitability for replication.
Include references to published reports, where available.

› Efforts were undertaken to coordinate activities related to socio economics together with other global initiatives for turtles' conservation. The initiative of biodiversity conservation coordinated by the regional organization of Red Sea and Gulf of Aden (PERSGA) is on top of these activities. Specific NGO's is now active to take the lead in organizing programs devoted mainly for turtle's conservation at Jordan's territorial waters. Work is coordinated with IUCN office in Jordan in different conservation programs. Publications are available in this direction;
1- The National Action Plan; An Approach to Prioritize Acts Related to the Conservation of Marine Turtles at Jordan's Gulf of Aqaba. Journal of Environmental Science and Engineering A2: 364-372, 2013
2- Population status and conservation of marine turtles at Jordan's Gulf of Aqaba, Red Sea. Journal of British Chelonia group (Testudo), Vol. 6 No. 4, 58-66, 2008
3- Jordan's national Strategic Action Plan for the Conservation of Marine Turtles and their Habitats in the Red Sea and Gulf of Aden. The Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA), 45 PP, 2005
4- Cultural and socioeconomic structure of the fisherman community and fishing industry in the Jordan's Gulf of Aqaba, Red Sea. Jordan Journal of Social Science, 2018.

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

☑ Others (Please describe)

› Limited artisan fishing might incidentally affect the capture of turtles and that commodities from it might be utilized

1.3.3 Has your country taken any measures to try to correct these adverse economic incentives? **[BPR]**
☑ Yes (If yes, please describe these measures in detail)

› Ban fishing at most of the coastal areas and direct fishermen to deeper waters

1.4 Reduction of incidental capture and mortality

1.4.1 Indicate, and describe in more detail, the main fisheries occuring in the waters of your country, as well as any high seas fisheries in which flag vessels of your country participate and interact with marine turtles.

Tick 'YES' to indicate that a fishery is present and interacting marine turtles or 'NO' to indicate that a fishery is not present or is not interacting with marine turtles. **[INF]**
If a fishery is present, use the text box to indicate, for example, the approximate geographic distribution of the fishery, how long it has been operating, how many vessels are involved, etc.

a) Shrimp trawls:
☑ No (Please provide details)

› Non of such orgasms are available commercially

b) Set gill nets:
☑ Yes (Please provide details)

› Used only in deep water not at coastal

c) Anchored Fish Aggregating Devices (FADs):
☑ No (Please provide details)

› No spag's available in our area

d) Purse seine (with or without FADs):
☑ No (Please provide details)

› Not applicable

e) Longline (shallow or deepset):
☑ Yes (Please provide details)

› But on artisan scale with no major treat to turtles

f) Driftnet:
☑ No (Please provide details)

› not applicable

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]. Select from one of the following descriptions: RELATIVELY HIGH, MODERATE, RELATIVELY LOW, NONE (i.e. not present), UNKNOWN (i.e. unable to answer for whatever reason).

a) Shrimp trawls
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing efforts:	☐	☑	☐	☐	☐
Perceived impact:	☐	☑	☐	☐	☐

- Source of information / clarification
› Marine Science Center of Aqaba the only research entity on marine sciences in the country

b) Set gill nets
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH

Fishing effort:	☐	☐	☑	☐	☐
Perceived impact:	☐	☐	☑	☐	☐

- Source of information / clarification
› Aqaba environment department of ASEZA and Marine Science Center of Aqaba the only research entity on marine sciences in the country

c) Anchored Fish Aggregating Devices (FADs)
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing effort:	☐	☐	☑	☐	☐
Perceived impact:	☐	☐	☑	☐	☐

- Source of information / clarification
› Aqaba environment department of ASEZA and Marine Science Center of Aqaba the only research entity on marine sciences in the country in addition to NGO of marine environment protection

d) Purse seine (with or without FADs)
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing efforts:	☐	☑	☐	☐	☐
Perceived impact:	☐	☐	☐	☐	☐

- Source of information / clarification
› Aqaba environment department of ASEZA and Marine Science Center of Aqaba the only research entity on marine sciences in the country in addition to NGO of marine environment protection

e) Longline (shallow or deepset)
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing effort:	☐	☐	☑	☐	☐
Perceived impact:	☐	☐	☑	☐	☐

- Source of information / clarification
› Aqaba environment department of ASEZA and Marine Science Center of Aqaba the only research entity on marine sciences in the country in addition to NGO of marine environment protection

f) Driftnet
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing effort:	☐	☑	☐	☐	☐
Perceived impact:	☐	☑	☐	☐	☐

- Source of information / clarification
› Aqaba environment department of ASEZA and Marine Science Center of Aqaba the only research entity on marine sciences in the country.

g) Others (from 1.4.1 g))
Please select only one per line

	UNKNOWN	NONE	RELATIVELY LOW	MODERATE	RELATIVELY HIGH
Fishing effort:	☑	☐	☐	☐	☐
Perceived impact:	☑	☐	☐	☐	☐

- Source of information / clarification
› Marine Science Center of Aqaba the only research entity on marine sciences in the country.

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]**
› As stated the nature of fishing in Jordan is Artisan. No. of fishermen are limited and even the fishing area is also restricted only to deeper waters

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 fishersusing equipment such as de-hooking, line cutting tools and scoop nets)
☑ YES (Details/future plans)

› Though it is very rare but it happens that a quick release of turtles is being practiced since long time

b) **Devices that allow the escape of marine turtles** (e.g. turtle excluder devices (TEDs) or other measures that are comparable in effectiveness)
☑ UNDER INVESTIGATION or NOT APPLICABLE (Details/future plans)

› Non used to limited fishing efferts

c) **Measures to avoid encirclement** of marine turtles in purse seine
☑ YES (Details/future plans)

› Openings are too small to affect turtles entanglement

d) **Appropriate combinations** of hook design, type of bait, depth, gear specifications and fishing practices
☑ UNDER INVESTIGATIONS or NOT APPLICABLE (Details/future plans)

e) **Monitoring and recovery of fish aggregating devices** (FADs)
☑ UNDER INVESTIGATION or NOT APPLICABLE

f) **Net retention and recycling schemes**
☑ UNDER INVESTIGATION or NOT APPLICABLE (Details/future plans)

g) **Spatial and temporal control of fishing** (e.g. seasonal closures of fishing activities)
☑ UNDER INVESTIGATION or NOT APPLICABLE (Details/future plans)

› to ban fishing at certain seasons in the entire area not only to minimize impacts on turtles but also to rehabilitate this resource

h) **Effort management control**
☑ 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]

Please use the corresponding text boxes to explain/clarify each of your responses, including 'NOT APPLICABLE' responses, and indicate future plans in this regard. [IND]
Please describe the collaboration, when/where the programmes were introduced, any difficulties encountered, and general results obtained (i.e. successful and unsuccessful). Provide references to publications, where available.

a) **Onboard observer programmes**

X
☑ NOT APPLICABLE (Details/future plans)

› artisan fishing

b) **Vessel monitoring systems**
☑ NOT APPLICABLE (Details/future plans)

› Artisan fishing

c) **Inspections** (i.e. at sea, in port, at landing sites)
☑ NO (Details/future plans)

› Navy check point is available at the landing site mainly for security purposes but could include also inspection for endangered species

d) **Training programmes / workshops** to educate fishers
☑ YES (Details/future plans)

› Regular programs concerning marine environment in general are held with topics related to conservation issues including marine turtles

e) **Informative videos, brochures, printed guidelines** etc.
☑ YES (Details/future plans)

› The Aqaba Marine Park is taking the lead to prepare these materials but with emphasis on marine environment in general

- Other OR none of the above
☑ Other (list and explain):

› Navy continuous patrolling on fishers in the sea

1.4.6 Are the mitigation measures described in 1.4.4 and 1.4.5 periodically reviewed and evaluated for their efficiency? **[SAP]**
☑ UNSURE (Please provide details)

› Law of environment and legislation are existing which specially set for ASEZA but without any recent revisions

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]**
› Being lacking nesting beaches in Jordan's gulf of Aqaba well as the wild populations are not in large numbers. Interests to pursue research in this issue is minimal.

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 (If yes, please give details of the exchanges/technical assistance)

› Collaboration are taking place between Jordan and the regional organization for the protection of Red Sea and gulf of Aden (PERSGA) which is based in Saudi Arabia

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]**
› Not applicable for Jordan

1.5 Addressing harvest of, and trade in, marine turtles; and protecting of habitat

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]**

Please provide details (title/date) of the relevant legislation, as well as any exemptions (e.g. for traditional harvest) under that legislation.
☑ YES

› Both the national law for environment and the ASEZA's environment law No. 21 and 21

1.5.2 Which, among the following list, are economic uses and cultural values of

marine turtles in your country? [INF]
Please rate the relative prevalence / importance of each consumptive or non-consumptive use.
Use the text boxes below each rating to explain or clarify your responses.

a1) Meat consumption
☑ NO

a2) Meat consumption: relative prevalence/importance
☑ LOW

› Even not existing

b1) Egg consumption
☑ NO

b2) Egg consumption: relative prevalence/importance
☑ LOW

› None

c1) Shell products
☑ NO

c2) Shell products: relative prevalence/importance
☑ LOW

› Not existing since more than three decades

d1) Fat consumption
☑ NO

d2) Fat consumption: relative prevalence/importance
☑ LOW

e1) Traditional medicine
☑ NO

e2) Traditional medicine: relative prevalence/importance
☑ LOW

f1) Eco-tourism programmes
☑ NO

f2) Eco-tourism programmes: relative prevalence/importance
☑ LOW

g1) Cultural / traditional significance
☑ NO

g2) Cultural/traditional significance: relative prevalence/importance
☑ LOW

h) Other (list and rank):
› If any of the above was existing it has been in the far past not less than 3 decades but never after then.

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

	RELATIVELY HIGH	UNKNOWN	NONE	RELATIVELY LOW	MODERATE
Level of harvest:	☐	☐	☑	☐	☐
Impact of harvest:	☐	☐	☑	☐	☐

Source of information / explanation:
› Aqaba environment department of ASEZA and Marine Science Center of Aqaba the only research entity on

marine sciences in the country in addition to NGO of marine environment protection

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

Use the text box to give details.
☑ NO

1.5.5 Describe any management agreements negotiating 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]**
› Not applicable

1.6 Minimizing mortality through nesting beach programmes

1.6.1 Measures and effectiveness

First, tick one of the YES/NO-boxes 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]**

Use the text boxes below each rating to elaborate on your responses, including any lessons learned that might be of value to other Signatory States, and indicate your plans for the coming year. Please explain any "Not Applicable (N/A)" responses.

a1) Monitoring/protection programmes
☑ YES

› National monitoring program for the entire marine environment and law enforcement

a2) Monitoring/protection programmes: relative effectiveness
☑ GOOD

b1) Education/awareness programmes
☑ YES

› Through workshops, seminars and media programs

b2) Education/awareness programmes: Relative effectiveness
☑ GOOD

c1) Egg relocation/hatcheries
☑ N/A

› No nesting beaches are existing along the Jordan's coast of Aqaba Gulf

c2) Egg relocation/hatcheries: Relative effectiveness
☑ UNKNOWN

› N/A

d1) Predator control
☑ N/A

d2) Predator control: Relative effectiveness
☑ UNKNOWN

› N/A

e1) Vehicle / access restrictions
☑ N/A

e2) Vehicle/access restriction: relative effectiveness
☑ LOW

f1) **Removal of debris / clean-up**
☑ YES

› This is the most frequent activity that takes place by many NGO's and volunteers that head to Aqaba

f2) Removal of debris /clean-up: relative effectiveness
☑ GOOD

› Clean beaches are mostly the main shape that characterizes the coasts of Aqaba

g1) Re-vegetation of frontal dunes
☑ NO

g2) Re-vegetation of frontal dunes: relative effectiveness
☑ LOW

h1) Building location/design regulations
☑ YES

› Buffer zone of 100 m is reinforced by law in addition to reduced heights of buildings along the coast

h2) Buidling location/design regulations: relative efectiveness
☑ GOOD

› wide beaches are available to users in addition to the sea view all along the coastal areas

i1) Light pollution reduction
☑ NO

› This issue is not in place yet

i2) Light pollution reduction: Relative effectiveness
☑ LOW

› No enforcement is undertaken in this direction

1.6.2 Has your country undertaken any evaluation of its nest and beach management programmes? **[SAP]**

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

› Beaches are free of debris in common and zoning of beaches are well establishes

OBJECTIVE II: PROTECT, CONSERVE AND REHABILITATE MARINE TURTLE HABITATS

2.1 Measures to protect and conserve 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]**

› Patrolling by AMP rangers and Navy in addition to law enforcement

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

Use the text box to elaborate on your response.
☑ YES

› Through the national monitoring program (NMP) on marine environment

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

› NMP and regular campaigns to clean beaches and sea bottom

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

Use the text box to elaborate on your response.
☑ YES

› These are totally prohibited by law

2.2 Rehabilitation of degraded marine turtle habitats

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

Provide sufficient details of the measures taken, especially those measures shown to have been effective in recovering degraded coral reefs. Please indicate future plans in this regard.
☑ NO (Details/future plans)

› Construction of artificial reefs along the degraded habitats in general

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]**
☑ NOT APPLICABLE (no mangrove habitats important for turtles)

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 (Details/future plans)

› At ports area after the demolishing of old port. Extensive care is undertaken including fish ban as well as removal of debris

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

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]**

› Al-Zibdah, M., Jawasrah R, Badran M., (2018). Socioeconomic and cultural ethics of fishermen community in Aqaba, Red Sea (in Arabic), 2018, المجلّد 11 ، العدد 1 المجلة الاردنية للعلوم الاجتماعية
Mohammad Al-Zibdah (2013). The National Action Plan; An Approach to Prioritize Acts Related to the Conservation of Marine Turtles at Jordan's Gulf of Aqaba. Journal of Environmental Science and Engineering A2: 364-372
Al-Zibdah, M. 2007. Population status and conservation of marine turtles at Jordan's Gulf of Aqaba, Red Sea. Journal of British Chelonia group (Testudo), Vol. 6 No. 4, 58-66.
Al-Zibdah, M. 2005. Jordan's national Strategic Action Plan for the Conservation of Marine Turtles and their Habitats in the Red Sea and Gulf of Aden. The Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA), 45 PP.

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]**

Please give details of the nature, duration and continuity of these programmes.
☑ YES

› NMP since 1999

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

Please give details (e.g. which species, which populations?).
☑ UNSURE

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]

a) Tagging
☑ YES (Details/future plans)

› Tags provided by PERSGA

b) Satellite tracking
☑ NO (Details/future plans)

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]**
☑ NO

› MSS only is implementing research work on turtles

3.1.6 Has research been conducted on the frequency and pathology of diseases in marine turtles? **[INF, PRI]**
☑ NO

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

3.2 Collaborative research and monitoring

- 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]**

Use the text box to elaborate on your response.
› Jordan as member of Red Sea countries among others has prepared its SAP on marine turtles conservation in collaboration with PERGGA

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
☑ NO (Details/future plans)

b) Conservation status
☑ YES (Details/future plans)

› papers were published but still few

c) Migrations
☑ NO (Details/future plans)

3.3 Data analysis and applied research

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]**
› population volume during seasons
foraging studies of the existing species
rehabilitation of some degraded habitats of coral reef and sea grass beds.

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

› Reports are contineully provided to ASEZA for review and evaluation

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]**
› Identify the most significant areas and habitats of bot hawksbell and green turtle

3.4 Information exchange

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 [If yes, please give details of the agreed protocol(s)]

› Monitoring of postulation including grass bed and coral reef

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

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]**
› Implementation SAP and Jorda's NAP

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

Please give details **[INF]**
☑ YES

› regulaly sending to PERSGA and shre with them other data from different countries around the Red Sea

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

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

Details/future plans:
› Brochures, booklets, TV programs, video clips, posters and beach signs

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
☑ Local/Fishing communities
☑ Tourists
☑ Media
☑ Students

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

Please give details and indicate future plans
☑ YES

› AMP seminar hall and meeting room and cinema

4.2 Alternative livelihoods opportunitiesDescribe initiatives already undertaken or planned to identify and facilitate alternative livelihoods (including income-generating activities) for local communities. **[IND, BPR]**
› Parts of fishers are being employed as rangers and patroller at ASEZA. Other institutions are already absorbed some of them but others will be engaged in other works away from the sea

4.3 Stakeholder participation

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]**
› Official authorities such as ASEZA, Aqaba development company and marine science station together with several NGO's such as Ayla oasis project, Saraya touristic project, JERDS and the Aqaba container Terminal

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]**
› Keep blue of our waters
Earth day campaign
Clean our earth
All together with ASEZA and several NGO's from all over the country

OBJECTIVE V: ENHANCE NATIONAL, REGIONAL AND INTERNATIONAL COOPERATION

5.1 Collaboration with, and assistance to, signatory and non-signatory States

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]**
☑ NOT APPLICABLE

5.1.2 Does your country have, or participate/cooperate in, CITES training programmes for relevant authorities? **[SAP]**
☑ YES (If yes, please provide details of these training programmes)

› May be through the ministry of environment in the capital Amman

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]**

Please give details of particularly successful interventions and prosecutions; and/or mention any difficulties experienced that impede progress in this area. Please provide references to any published reports (e.g. already prepared for CITES purposes) that give a more ample explanation.
☑ NO

› Not sure

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]**
› Collaboration with signatory states, cooperation and partnership with PERSGA, benefiting from the different formative programs arranged by the IOSEA MoU

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]**
› N/A

5.2 Prioritisation, development and implementation of national action plans

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]**

Please explain.
☑ YES

› In collaboration with PERSGA

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?
(List up to 10 activities from the IOSEA Conservation and Management Plan). **[PRI]**
› Reduce turtle's mortality due to un manged navigation and incidental capture by gill net

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 achieve progress. **[PRI]**
In other words, how important is **international** cooperation for addressing these issues?
Please select only one per line

	NOT AT ALL	LIMITED	IMPORTANT	ESSENTIAL
Illegal fishing in territorial waters	☑	☐	☐	☐
Incidental capture by foreign fleets	☑	☐	☐	☐
Enforcement/patrolling of territorial waters	☐	☐	☑	☐

Hunting/harvest by neighboring countries	☑	☐	☐	☐
Poaching, illegal trade in turtle products	☑	☐	☐	☐
Development of gear technology	☐	☑	☐	☐
Oil spills, pollution, marine debris	☐	☑	☐	☐
Training / capacity-building	☐	☐	☑	☐
Alternative livelihood development	☐	☑	☐	☐
Identification of turtle populations	☐	☐	☑	☐
Identification of migration routes	☐	☐	☑	☐
Tagging / satellite tracking	☐	☐	☑	☐
Habitat studies	☐	☐	☑	☐
Genetics studies	☐	☐	☑	☐

Use the text box to list and rank any other local management issues for which international cooperation is needed to achieve progress.
› N/A

5.3 Cooperation and Information exchange

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]**
› On sub regional level, the Gulf of Aqaba is surrounded by four country on which all related organizations in these countries are cooperated among each other in most of the issues related to marine environment conservation. The issue of turtles being migratory are also within the program of conversation in these countries. Saudi Arabia, Egypt, Israel and Jordan are having exchange programs to strengthen the cooperation toward conservation issues of the marine environment. Bilateral and multi national agreements were signed and in effect

5.3.2 Has your country developed, or is it participating in, any networks for cooperative management of shared turtle populations? **[BPR, INF]**
☑ YES (if yes, give details)

› Jordan is a member state of PERSGA. Networking as well as correspondences are taking place continuously

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? Please describe the interventions made in this regard, referring to specific RFBs. **[SAP]**
› N/A

5.4 Capacity-building

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]**
› - Experienced personnel (scientists, technicians, rangers and public volunteers). Training is needed in different aspects of turtle's conservation issues
- Monitoring gears to include tags etc.
- Knowledge dissemination tools for public to contribute in awareness raise

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]**

› very few workshop devoted for turtles were held during the past period (4 years). Other workshops however were held considering the marine environment in the area which generally emphases the importance of turtles being migratory and endangered. None of the training manuals were produced but this is also important for this area.

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]**
› MSS is the only research center in marine sciences which part of the faculty of marine science of Jordan university. To the best of my knowledge, only the Aqaba Marine Park rangers and some NGO's are collaborating with MSS in different issues of turtle's conservation. Nonetheless, information on other interested institutions are not avialbel

5.5 Enforcement of conservation legislation

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]**
› Policies at ASEZA in this direction are very strict and powered by law against any violence to marine environment. There are two main environment laws in Aqaba. Namely, no. 21 and 22. In addition to the national law imposed by the ministry of environment. Generally, effectiveness seems successful in protection practices

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]**

Please give details.
☑ UNSURE

› It seems there is a major revision

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]**

Please give details.
☑ UNSURE

› This not clear but this might happen being Aqaba has its special laws and status compared to the national ministries and governorate.

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

6.1 IOSEA Marine Turtle MoU membership and activities

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

› In all related events that were held on regional levels such as workshops, meetings and conferences in Jordan and other neighboring countries, the IOSEA Mou was a matter of discussion. This primarily was to show the main objectives and efforts devoted toward the protection of turtle populations in wider Asia. In addition, urging non signatories to initiate contacts withe IOSEA secretary to get additional information that might needed for them. Upon Jordan's request, at PERSGA's head quarter in Jeddah, Saudi Arabia, the IOSEA MoU was also a matter of discussion between delegates of the seven countries surrounding the Red Sea. Those who are not yet signed were showed an interest to correspond with IOSEA secretary.

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

☑ 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]**

☑ NO VIEW (Use the text box to elaborate on your response, if necessary)

› This has to be done through further discussion with higher level decision makers in ASEZA and the ministry of environment

6.2 Secretariat and Advisory Committee

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]**

› Continue collaboration and coordination with IOSEA MoU in all activities that can benefit the state of turtles population in Jordan promoting further contribution in the different programs implemented by the MoU.

6.3 Resources to support implementation of the MoU

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]**

› Small volume of funds are available almost on yearly basis, part of it is used for implementing some activities related to marine turtles conservation such as monitoring of foraging areas, cleaning campaign at major habitats under water as well as along the coastal area. This certainly together with some data generation about the populations that are roaming in the area.

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

› Engage most of the economic facilities along the coast to be part of the conservation issues. Touristic facilities that usually occupy wide coastal area. They are contributing in monitoring and cleaning of habitats on regular basis. Ports are also part of the protection measures including the identification of sensitive tracks for turtles as well as cleaning of beaches and ports rangers watch for marine creatures in general

6.4 Coordination among government agencies

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]**

Please elaborate, as necessary.

☑ NO

› MSS and ASEZA are working to coordinate the responsibility of such issue between them. However, a new environment law or modified is in the pipeline now and will appear shortly upon which a new arrangement will be decided soon and certainly IOSEA MoU secretary will be communicated.

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]**

Use the text box to elaborate.

☑ UNSURE

› I believe with the upcoming modification of the ASEZA's environmental law, it will help much

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]**

This question seeks to ascertain whether Signatories have made a serious examination of which agencies have a role to play in marine turtle conservation, either directly or indirectly, and which therefore should be apprised of the IOSEA MoU and its provisions.
If no internal review of interagency roles and responsibilities has been or will be undertaken, please elaborate if only to indicate that the necessary arrangements are already clear and not in need of further review.
☑ UNSURE (Use the text box to elaborate)

OTHER REMARKS

Please provide any comments/suggestions to improve the present reporting format.
› None at this moment

ANNEX 1: SPECIES, HABITAT AND THREAT DATA [PRI, INF]

PLEASE COMPLETE A SEPARATE SECTION FOR EACH SITE/AREA

Site 1

Name of site/area:
› Northern beach (public)

Geographic coordinates (North/South)
☑ North

On-site research activities:
☑ Tagging
☑ Foraging surveys

Province / State:
› Gulf of Aqaba

Name of person / agency wwho has provided the information:
› MSS

Information was last updated: (dd/mm/yyyy)
› 23/04/2018

Short description of the site (optional):
› Sandy in major with scattered batches of sea grasses. Corals are almost absent

Indicate the species occurence / use and relative importance of the site:

Abbreviations: Loggerhead Caretta caretta (CC); Olive Ridley Lepidochelys olivacea (LO); Green Chelonia mydas CM); Hawksbill Eretmochelys imbricata (EI); Leatherback Dermochelys coriacea (DC); Flatback Natator depressus (ND)
Use one of the following symbols or letters to indicate the presence or absence of a species at this site in the table above, including details (if known) about the relative importance of the site for nesting, feeding or development.

Insufficient information is available on the presence or absence of the species (leave box empty)

The species is **not present** or does not use this particular habitat type at this site.
?
It is speculated (only) that the species is present at this site and may be using one or more particular habitat types. In the absence of definitive information, place a **?** in the appropriate box(es).
✓
The species is definitely **known to be present** at this site; however no information is available on the relative importance of the site for nesting, feeding or development.
✓
H
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **high importance** for this species, relative to other sites in the country.
✓
A
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **average importance** for this species, relative to other sites in the country.
✓
L
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **lower importance** for this species, relative to other sites in the country.
a - h
Additional information on nesting habitat (where available):

Indicate the estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' **a** ' through ' **f** ', 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

	ND Flatback	DC Leatherback	EI Hawksbill	CM Green	LO Olive Ridley	CC Loggerhead

Nesting						
Feeding			✓	✓		
Developmental				?		

Describe the nature of and intensity of threats to marine turtles at this site:

	High (common occurence)	Medium	Low (rare event)	None	Unknown
Exploitation of nesting females (i.e. direct harvest on land)				✓	
Direct harvest of animals in coastal waters at or near the site				✓	
Egg collection (i.e. direct harvest by humans)				✓	
Incidental capture in coastal fisheries			✓		
Boat strikes			✓		
Marine debris (e.g. plastics at sea, flotsam)			✓		
Industrial effluent				✓	
Inshore oil pollution				✓	
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				✓	
Artificial lighting (on land or near shore)			✓		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)				✓	
Vehicles				✓	
Sand mining / removal				✓	
Natural threats, disease, predation of nests/nesting females (e.g. by domestic / feral animals), or natural predation at sea					✓
Other (type in):					

What measures have been introduced to remove threats to marine turtles at this site?
☑ Vehicle / access restrictions

Site 2

Name of site/area:
› Public beach Al-Gandoor

Geographic coordinates (North/South)
☑ North

› Close to main port

On-site research activities:

☑ Tagging
☑ Foraging surveys

Province / State:
› Aqaba

Name of person / agency wwho has provided the information:
› MSS

Information was last updated: (dd/mm/yyyy)
› 14/3/2018

Short description of the site (optional):
› Public beach for all usres of the sea. It is mainly a coral reef habitat but mostly deteriorated. No grass but still pebble bottom can be seen

Indicate the species occurence / use and relative importance of the site:

Abbreviations: Loggerhead Caretta caretta (CC); Olive Ridley Lepidochelys olivacea (LO); Green Chelonia mydas CM); Hawksbill Eretmochelys imbricata (EI); Leatherback Dermochelys coriacea (DC); Flatback Natator depressus (ND)
Use one of the following symbols or letters to indicate the presence or absence of a species at this site in the table above, including details (if known) about the relative importance of the site for nesting, feeding or development.

Insufficient information is available on the presence or absence of the species (leave box empty)

The species is **not present** or does not use this particular habitat type at this site.
?
It is speculated (only) that the species is present at this site and may be using one or more particular habitat types. In the absence of definitive information, place a **?** in the appropriate box(es).
✓
The species is definitely **known to be present** at this site; however no information is available on the relative importance of the site for nesting, feeding or development.
✓
H
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **high importance** for this species, relative to other sites in the country.
✓
A
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **average importance** for this species, relative to other sites in the country.
✓
L
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **lower importance** for this species, relative to other sites in the country.
a - h
Additional information on nesting habitat (where available):

Indicate the estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' **a** ' through ' **f** ', 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

	ND Flatback	DC Leatherback	EI Hawksbill	CM Green	LO Olive Ridley	CC Loggerhead
Nesting						
Feeding			✓			
Developmental						

Describe the nature of and intensity of threats to marine turtles at this site:

	High (common occurence)	Medium	Low (rare event)	None	Unknown

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

Site 3

Name of site/area:
› Phosphate Loading Perth

Geographic coordinates (North/South)
☑ North

› Main port area

On-site research activities:
☑ Foraging surveys

Province / State:
› Aqaba

Name of person / agency wwho has provided the information:
› MSS

Information was last updated: (dd/mm/yyyy)
› 16/4/2018

Short description of the site (optional):
› The souther part of the main port. Grass beds are the major characteristic of the site. Impacted by the export of crude phosphate. Some batches of hard corals avilable but not in good shape

Indicate the species occurence / use and relative importance of the site:

Abbreviations: Loggerhead Caretta caretta (CC); Olive Ridley Lepidochelys olivacea (LO); Green Chelonia mydas CM); Hawksbill Eretmochelys imbricata (EI); Leatherback Dermochelys coriacea (DC); Flatback Natator depressus (ND)
Use one of the following symbols or letters to indicate the presence or absence of a species at this site in the table above, including details (if known) about the relative importance of the site for nesting, feeding or development.

Insufficient information is available on the presence or absence of the species (leave box empty)

The species is **not present** or does not use this particular habitat type at this site.
?
It is speculated (only) that the species is present at this site and may be using one or more particular habitat types. In the absence of definitive information, place a **?** in the appropriate box(es).
✓
The species is definitely **known to be present** at this site; however no information is available on the relative importance of the site for nesting, feeding or development.
✓
H
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **high importance** for this species, relative to other sites in the country.
✓
A
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **average importance** for this species, relative to other sites in the country.
✓
L
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **lower importance** for this species, relative to other sites in the country.
a - h
Additional information on nesting habitat (where available):

Indicate the estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' **a** ' through ' **f** ', 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

	ND Flatback	DC Leatherback	EI Hawksbill	CM Green	LO Olive Ridley	CC Loggerhead
Nesting			✓	✓		
Feeding						
Developmental						

Describe the nature of and intensity of threats to marine turtles at this site:

	High (common occurence)	Medium	Low (rare event)	None	Unknown
Exploitation of nesting females (i.e. direct harvest on land)				✓	
Direct harvest of animals in coastal waters at or near the site				✓	
Egg collection (i.e. direct harvest by humans)				✓	
Incidental capture in coastal fisheries			✓		
Boat strikes			✓		
Marine debris (e.g. plastics at sea, flotsam)			✓		

Industrial effluent			✓		
Inshore oil pollution		✓			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				✓	
Artificial lighting (on land or near shore)					✓
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		✓			
Vehicles					✓
Sand mining / removal					✓
Natural threats, disease, predation of nests/nesting females (e.g. by domestic / feral animals), or natural predation at sea					✓
Other (type in):					

Site 4

Name of site/area:
› MSS

Geographic coordinates (North/South)
☑ South

› Protected area close to passenger terminal

On-site research activities:
☑ Tagging
☑ Foraging surveys

Province / State:
› Aqaba

Name of person / agency wwho has provided the information:
› MSS

Information was last updated: (dd/mm/yyyy)
› 17/08/2018

Short description of the site (optional):
› Coral reef habitat, protected area, little batches of sea grasses. Mainly rocky bottom

Indicate the species occurence / use and relative importance of the site:

Abbreviations: Loggerhead Caretta caretta (CC); Olive Ridley Lepidochelys olivacea (LO); Green Chelonia mydas CM); Hawksbill Eretmochelys imbricata (EI); Leatherback Dermochelys coriacea (DC); Flatback Natator depressus (ND)
Use one of the following symbols or letters to indicate the presence or absence of a species at this site in the table above, including details (if known) about the relative importance of the site for nesting, feeding or development.

Insufficient information is available on the presence or absence of the species (leave box empty)

The species is **not present** or does not use this particular habitat type at this site.
?
It is speculated (only) that the species is present at this site and may be using one or more particular habitat types. In the absence of definitive information, place a **?** in the appropriate box(es).
✓
The species is definitely **known to be present** at this site; however no information is available on the relative

importance of the site for nesting, feeding or development.
✓
H
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **high importance** for this species, relative to other sites in the country.
✓
A
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **average importance** for this species, relative to other sites in the country.
✓
L
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **lower importance** for this species, relative to other sites in the country.
a - h
Additional information on nesting habitat (where available):

Indicate the estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' **a** ' through ' **f** ', 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

	ND Flatback	DC Leatherback	EI Hawksbill	CM Green	LO Olive Ridley	CC Loggerhead
Nesting						
Feeding			✓	✓		
Developmental						

Describe the nature of and intensity of threats to marine turtles at this site:

	High (common occurence)	Medium	Low (rare event)	None	Unknown
Exploitation of nesting females (i.e. direct harvest on land)				✓	
Direct harvest of animals in coastal waters at or near the site				✓	
Egg collection (i.e. direct harvest by humans)				✓	
Incidental capture in coastal fisheries				✓	
Boat strikes				✓	
Marine debris (e.g. plastics at sea, flotsam)				✓	
Industrial effluent				✓	
Inshore oil pollution				✓	
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				✓	
Artificial lighting (on land or near shore)					✓
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)				✓	

Vehicles				✓	
Sand mining / removal				✓	
Natural threats, disease, predation of nests/nesting females (e.g. by domestic / feral animals), or natural predation at sea				✓	
Other (type in):					

Site 5

Name of site/area:
› Aqaba marine park

Geographic coordinates (North/South)
☑ South

On-site research activities:
☑ Tagging
☑ Foraging surveys

Province / State:
› Aqaba

Name of person / agency wwho has provided the information:
› AMP, MSS

Information was last updated: (dd/mm/yyyy)
› 16/01/ 2018

Short description of the site (optional):
› Mainly coral reef habitat with rocky bottom. Many vsistors head to the place.

Indicate the species occurence / use and relative importance of the site:

Abbreviations: Loggerhead Caretta caretta (CC); Olive Ridley Lepidochelys olivacea (LO); Green Chelonia mydas CM); Hawksbill Eretmochelys imbricata (EI); Leatherback Dermochelys coriacea (DC); Flatback Natator depressus (ND)
Use one of the following symbols or letters to indicate the presence or absence of a species at this site in the table above, including details (if known) about the relative importance of the site for nesting, feeding or development.

Insufficient information is available on the presence or absence of the species (leave box empty)

The species is **not present** or does not use this particular habitat type at this site.
?
It is speculated (only) that the species is present at this site and may be using one or more particular habitat types. In the absence of definitive information, place a **?** in the appropriate box(es).
✓
The species is definitely **known to be present** at this site; however no information is available on the relative importance of the site for nesting, feeding or development.
✓
H
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **high importance** for this species, relative to other sites in the country.
✓
A
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **average importance** for this species, relative to other sites in the country.
✓
L
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **lower importance** for this species, relative to other sites in the country.
a - h
Additional information on nesting habitat (where available):

Indicate the estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' **a** ' through ' **f** ', 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

	ND Flatback	**DC Leatherback**	**EI Hawksbill**	**CM Green**	**LO Olive Ridley**	**CC Loggerhead**
Nesting			✓	✓		
Feeding						
Developmental						

Describe the nature of and intensity of threats to marine turtles at this site:

	High (common occurence)	**Medium**	**Low (rare event)**	**None**	**Unknown**
Exploitation of nesting females (i.e. direct harvest on land)				✓	
Direct harvest of animals in coastal waters at or near the site				✓	
Egg collection (i.e. direct harvest by humans)				✓	
Incidental capture in coastal fisheries				✓	
Boat strikes				✓	
Marine debris (e.g. plastics at sea, flotsam)			✓		
Industrial effluent				✓	
Inshore oil pollution				✓	
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				✓	
Artificial lighting (on land or near shore)				✓	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)				✓	
Vehicles				✓	
Sand mining / removal				✓	
Natural threats, disease, predation of nests/nesting females (e.g. by domestic / feral animals), or natural predation at sea					✓
Other (type in):					

Site 6

Name of site/area:

› Industrial area

Geographic coordinates (North/South)
☑ South

› Close to Saudi border

On-site research activities:
☑ Foraging surveys

Province / State:
› Aqaba

Name of person / agency wwho has provided the information:
› MSS

Information was last updated: (dd/mm/yyyy)
› 16/02/2018

Short description of the site (optional):
› Mainly of coral reef habitat, the location of fertilizers industry area.

Indicate the species occurence / use and relative importance of the site:

Abbreviations: Loggerhead Caretta caretta (CC); Olive Ridley Lepidochelys olivacea (LO); Green Chelonia mydas CM); Hawksbill Eretmochelys imbricata (EI); Leatherback Dermochelys coriacea (DC); Flatback Natator depressus (ND)
Use one of the following symbols or letters to indicate the presence or absence of a species at this site in the table above, including details (if known) about the relative importance of the site for nesting, feeding or development.

Insufficient information is available on the presence or absence of the species (leave box empty)

The species is **not present** or does not use this particular habitat type at this site.
?
It is speculated (only) that the species is present at this site and may be using one or more particular habitat types. In the absence of definitive information, place a **?** in the appropriate box(es).
✓
The species is definitely **known to be present** at this site; however no information is available on the relative importance of the site for nesting, feeding or development.
✓
H
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **high importance** for this species, relative to other sites in the country.
✓
A
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **average importance** for this species, relative to other sites in the country.
✓
L
The species is known to be present at this site and definitely uses this particular habitat. The site is considered to be of **lower importance** for this species, relative to other sites in the country.
a - h
Additional information on nesting habitat (where available):

Indicate the estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' **a** ' through ' **f** ', 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

	ND Flatback	DC Leatherback	EI Hawksbill	CM Green	LO Olive Ridley	CC Loggerhead
Nesting			✓	✓		
Feeding						
Developmental						

Describe the nature of and intensity of threats to marine turtles at this site:

	High (common occurence)	Medium	Low (rare event)	None	Unknown
Exploitation of nesting females (i.e. direct harvest on land)				✓	
Direct harvest of animals in coastal waters at or near the site				✓	
Egg collection (i.e. direct harvest by humans)				✓	
Incidental capture in coastal fisheries					✓
Boat strikes					✓
Marine debris (e.g. plastics at sea, flotsam)					✓
Industrial effluent					✓
Inshore oil pollution				✓	
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				✓	
Artificial lighting (on land or near shore)					✓
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			✓		
Vehicles					✓
Sand mining / removal				✓	
Natural threats, disease, predation of nests/nesting females (e.g. by domestic / feral animals), or natural predation at sea					✓
Other (type in):					

What measures have been introduced to remove threats to marine turtles at this site?
☑ Removal of debris / beach clean-up