

Regional Meeting for Marine Turtles in the North West Indian Ocean

21 September 2010
Abu Dhabi, United Arab Emirates

Meeting summary

Introduction

NWIO region meeting was held in Abu Dhabi, UAE, at the premises of the Environment Agency - Abu Dhabi. Bahrain, Bangladesh, India, Iran, Jordan, Pakistan, Saudi Arabia, United Arab Emirates (UAE) and Yemen participated in the meeting. Also Mr. Douglas Hykle, Coordinator for the IOSEA Marine Turtle MOU Secretariat, attended.

The overall objective of the meeting was to support and enhance the cooperation, coordination and communication within and between range states; review the progress with regard to turtle research, monitoring and conservation; and discuss potential synergies and opportunities in marine turtle and dugong conservation.

Country presentations

Participants presented their country reports on marine turtles:

Bahrain

Threats to Bahrain turtles include continuous dredging and reclamation and its impacts on marine habitats, by-catch in shrimp trawling, fishermen's attitudes (aggressive towards turtles), fast boats and waste (plastic bags). Marine turtles are protected from hunting by national legislation (Decree-Law No. 2 Article 9 issued in 2002). Public Commission for the Protection of Marine Resources, Environment and Wildlife (PMEW) has also issued a Resolution No. 3 in 2003 to prohibit hunting dugongs, sea turtles and dolphins.

Recommendations for turtle management:

1. Protected Areas. National Scale: *Fasht* Bulthama: This is the best and healthiest coral reef area in Bahraini waters, contains high fish stocks and is surrounded by a pearl oyster bank. Hawar Islands: the surrounding waters of Hawar are also important for dugong and green turtle, which feed on seagrass beds in this area, and sea snakes, which were observed during the research fieldwork in 2001. The Islands and the *Feshot* of south-eastern Bahrain Island: This proposed MPA is the largest in size and combines 7 candidate sites. The highest number of dugongs and green turtles recorded in Bahraini water were observed in this area due to the high density of healthy seagrass beds and the occurrence of other importance habitats such as algae, shallow mud and rock. Regional scale: Cross-boundary MPA.
2. Research and monitoring: (a) link to existing projects in the region, (b) Regional Combined Initiatives, (c) satellite tracking to identify the route of migration, (d) biology (behavior), (e) monitoring of mortality rate (regional database).
3. Ecotourism: Develop regional guidelines for ecotourism in the region

Bangladesh

Sea turtles are found in St. Martin Island, Sahporirdwip~Cox's Bazar, Teknaf Bortal Kochopia, Inani, Monkhali, Sonadia Island, Kutubdia Island, Sandwip, Egg Island, Mandarbaria, Dubla Island and sandy beaches of Sundarban area.

There has been no priority for turtle research or conservation since 1971. There has been no scientific survey or research – the only information available is in newspapers, DoEF reports, NGOs and such. A few sporadic activities first started in 1980.

Turtles are consumed by two-thirds of the communities and tribes in Bangladesh, and turtle meat is sold openly in local markets. Other threats include nets (trawl/drift/gill/mesh), collision with fishing vessels, coastal traffic, beach lighting, egg depredation, predators (stray dogs, jackals), flooding, beach erosion, embankments, shrimp farms, excavated stones and dead coral, oil spills, and pollution.

Marine turtles are not included in the list of protected species, Schedule III of the Bangladesh Wildlife (Preservation) (Amendment) Act 1974 (BWPA). In management work, the Forest Department is the sole authority. There is a lack of adequate manpower and coordination, and there are no institutional arrangements or management strategies. Loopholes in the enforcement of wildlife protection laws should be identified. Coordination and combined effort is needed.

Iran

Nesting concentrates on islands and nesting in important sites is intense: considerable number of turtles. The most important nesting sites of Hawksbills in the Persian Gulf: Sheedvar, Hendorabi, Hengam, Qeshm, Farour in Hormozgan province, and (Nakhiloo, Ommolkaram, Kharkoo Islands and Nayband Bay in Booshehr province. Main sites for Green turtles recorded in the Oman Sea area: Considering the long shorelines of the Oman Sea and lack of equipments it is difficult to cover all the are annually, but in some regular surveys the main sites have been identified. Nesting sites: Cholotr, ahmad Rizeh, Karatti, Kachoo, Kohpansar, Tang. Feeding grounds: Tang, Pozm, Miami, Djodd.

Sea turtles' study in Iran in the past years: Considering the lack of available information on sea turtles in Iran covering the existing gaps was in high need, especially that there was not any reliable information on their reproduction biology. Therefore during past years the important sites were visited regularly, information and data nearly collected, especially from Sheedvar, Hendorabi, Nakhiloo and Ommolkaram Islands.

Threats: By-catch, gill nets, traditional use, tourism, coastal development. Other important threats at country level can be mismanagement, lack of understanding, unsuitable cooperation, lack of sufficient support, complicated bureaucracy, and lack of considerations/attention. Actions to protect marine turtles include the nomination of sea turtles as “endangered animals” of the country, and nominating the nesting sites as “under management and control area” such as Mond Protected Area and Sheedvar Wildlife Refuge. The main sites are monitored by DOE guards. There has also been a fine of about 3,200,000 rials for each killed turtle, which has been doubled in the past year (6,400,000 rials = about \$US 700) and also a fine for collecting turtle eggs, about \$US 233 / egg.

Main activities on sea turtles in the country include sea turtle tagging program (initiated for the first time in 2005 by the kind help and support of IOSEA Marine Turtle MOU Secretariat), collecting basic information on turtles (such as the nesting females, nests, eggs and hatchlings to cover the existing gaps), and “Beach Cleaning Up” project in some of the main sites (Nakhiloo-Sheedvar) through IOSEA Marine Turtle MOU programs. There are also plans to start conservation activities in some of the sites (looking for needed budget), genetic works for identification of populations in the four main nesting sites, and studying of heavy metal concentrations in the eggs of Hawksbills in the main nesting sites.

Recommendations: (1) Cooperative genetic study for the western and eastern parts of the Gulf and Oman Sea to identify the populations, (2) Satellite tracking of the turtles, (3) Close cooperation between countries for conservation, research and studies, (4) Forming of an expertise group for the region. There is a need for close cooperation, expanding in regional level, and a need for more concise data.

India

Threats include loss of nesting habitat, artificial illumination, destruction of habitats, coastal development, pollution, incidental capture in fishing nets, hunting for meat and eggs, non-human predation, and inappropriate hatchery operations.

India has taken several measures for turtle conservation. The Wildlife (Protection) Act, 1972, has been amended and made more stringent: wide publicity is given on provisions against poaching, and the Act also provides for forfeiture of any equipment, vehicle or weapon that is used for committing wildlife offences. Turtle nesting sites have been declared as Protected Areas. During the nesting/breeding season, the State Wildlife Departments, supported by Indian Coast Guards, patrol the area and prohibit illegal fishing. Important States for turtles (Andhra Pradesh, Orissa, West Bengal and Andaman & Nicobar Islands) have implemented the use of Turtle Excluder Device (TED) as mandatory by enacting a law. Financial and technical assistance is provided to the State Governments for better conservation of turtles and their habitats.

In order to conserve and manage the marine turtles of the Indian Ocean and South-East Asia and their habitats, the Convention on Migratory Species (CMS) has developed an MOU involving most of the States in the region as well as relevant inter-governmental organizations and non-governmental organizations. The objective of this MOU is to protect, conserve, replenish and recover marine turtles and their habitats. 30 countries have signed the IOSEA Marine Turtle MOU, including India (signed 20 February 2007).

The Ministry of Environment & Forests of India has constituted a National Marine Turtle Advisory Committee with the following Terms of Reference: (i) to review the activities pertaining to conservation and management of Marine Turtles & their habitat, (ii) to suggest the plan of activities essential for Turtle Conservation, and (iii) to monitor the activities that may have adverse impact on Turtle Conservation and their habitat.

Jordan

Jordan's coastline is 27 km and Aqaba is the only coastal city in Jordan. In Jordanian waters there are no large meadows of seagrass but they are being monitored. In addition, coral reef is monitored for touristic purposes. Economy in Jordan is weak, but the coast line has to be divided with all the activities: fisheries, oil, tourism, ports, industry. The challenge is how to utilize the resource without destroying the ecosystem.

Major coastal issues and environmental threats include: limited coastal line, conflicts between land uses, tendency to privately owned lands for resort and hotel development, limited public access and beaches, and increase in population (local and visitors). Measures should be taken and have been taken in order to conserve the area. There is a report on yearly basis and measurements are taken monthly. There is also a lot of awareness raising activities. A new approach for coral reef monitoring is Deterioration Index (DI). Highest index was found in Jordan fertilizer industry.

Priorities for effective scientific research and management are: combating poverty, diversifying income resources, sustainable exploitation of resources, and scientifically informed management. A broader coverage to cover the entire Red Sea region is essential for better environmental and socio-economic

security. As much as it is important to attract international funding for regional scientific research, it is also important to establish local sources mainly from the private sector.

Pakistan

There is a well-established legislative framework for environmental management in Pakistan. A protection act (coral reef, protected waters) has been finalized and will be handled by the parliament. Historically very important sites are Hawkasbay/Sandspit, which have a lot of potential for green turtles. There is an urgent need to protect beaches at Omara, Pasni Garwadar and Jiwani; and urgent need to teach fishermen as well as clean the beaches.

Threats: Journey of hatching to sea (dogs, crows, kites), habitat degradation, pollution, boat strikes, entanglement in nets. Conservation and management: (i) Collect turtle eggs, place them in protective enclosures and release the hatchlings into the sea. (ii) Determine the kinds of species, general behavior, food, ecology, biology, migratory patterns breeding and life cycles of marine turtles. (iii) Educate the nearby villages at Taak (Ormara), Juddi (Pasni), Kapsi and Rack Pack (Gawadar) about the importance of turtles through community based workshops. (iv) Encourage the villagers at Taak (Ormara), Juddi (Pasni), Kapsi and Rack Pack (Gawadar) for establishing a small community based organization (CBO) such as Daran Conservation Society at Jiwani for the conservation of turtles.

Activities of Pakistan Wetland Programme on West Coast of Pakistan: People have been appointed at Astola Island/Taak/Daran to clean the beaches and collect data on daily basis. Pakistan Wetland Programme has also provided financial assistance to the CBO at Daran for the conservation of turtles.

Saudi Arabia

In 1991 a sanctuary was established on the location of turtle nesting beach and some nesting beaches are in south-west islands.

Artificial light is a big threat. Law enforcement is done by the Saudi Wildlife Commission. There are several actions underway, for example DNA studies and starting a training on artificial fisheries. In 2009 a satellite tracking was released on two turtles, of which one is now in Gulf of Suez. Some turtles have reached even the border of Iran.

United Arab Emirates

From the start of the turtle research programme in 1999 there have been regular programmes in the UAE. Seagrass meadows are being characterized and mapped and water quality monthly monitored. The campaigns include regular field trips to sea turtle habitats involving students, teachers and general public; marine clean-up program involving government agencies and NGOs; and there is a proposal to include sea turtle conservation in school curriculum.

Major causes of mortality are drowning (46%) in illegal fishing gears and boat hit (23%). There are also a lot of abandoned nets, which is why UAE has cleaning programmes. 31% of mortality are unknown, but the impact of large scale coastal development in and around sea turtle habitats deserves a notion. There are fishing gear regulations, Environment Impact Assessment for all developmental projects, long-term nesting and foraging habitat monitoring program, and Federal Laws 23, 24 (1999).

64% foraging turtles occur within the protected areas. All known offshore nesting beaches are protected and monitored. Waters of most of these islands (2-8 nautical miles) are protected. There are extensive beach cleaning programs, a Rehabilitation Program (of which the Al Yasat Al Ali is a success story), long-term water quality monitoring program, and coastal rehabilitation programs such as artificial reef and mangrove plantation is underway.

As a member of ROPME sea area, UAE shares information; has collaboration with Bahrain through formal MOU; and has technical collaboration with Qatar. UAE also exchanges research findings internationally and, as a signatory to the IOSEA MOU, has started implementing the CMP.

Yemen

Yemen has more than 130 islands located in the Red Sea and Gulf of Aden/Arabian Sea. Islands are important with regards to feeding and nesting. The length of Yemeni coastline is 2,500 km and there is seagrass all along the coast. Mr. Aref A. Hamood said the mapping of seagrass is necessary and yet to be done.

Turtles are caught by fishermen throughout the southern Red Sea and Gulf of Aden for their meat. Also shrimp fishing is causing a lot of turtle deaths. Government is not currently foreseeing anything with regards to by-catch regarding fisheries or monitoring. National conservation priorities for turtles include protection of known nesting beaches of CZM areas (Bir Ali-Burun, Sharma-Jethmun and NE Kamaran Island) and reducing direct and indirect causes of marine turtle mortality. The MPAs and CZM project have been prepared the management plan for the CZM areas (Bir Ali-Burun and Sharma-Jethmun).

Proposed future research and conservation action includes (1) conducting baseline studies to identify marine turtles habitat and nesting areas; (2) promoting integrated management plan for marine turtles conservation; (3) conduct seasonal surveys and monitoring of marine turtles, nesting and feeding areas, as well as magnitude of exploitation by local communities; (4) develop public awareness programs for fishing communities and other users of marine resources.

Synergies and opportunities

Dr. Nicolas Pilcher, Technical Advisor for the UNEP/CMS Office - Abu Dhabi, spoke on the possibility of synergies between dugong and sea turtle research. Dr. Donna Kwan, Dugong Programme Officer at the UNEP/CMS Office - Abu Dhabi, gave a brief on the Marine Turtle and Dugong Conservation Workshop that was held on this subject in Goa, India, during the ISTS¹ 30th Annual Symposium on Sea Turtle Biology and Conservation (24-30 April 2010).

Participants discussed the synergies and overlaps in smaller groups. Discussions resulted that synergies between sea turtle and dugong research and conservation will be cost effective. Most of the countries with research programmes for both species have the same manpower. Problems for both species are the same and solutions are similar, hence management of the species and their habitats can be undertaken simultaneously.

A need for holding information sessions and cross-over training workshops was raised. There should also be environmental mortgages, improved networking, awareness-raising, and a list of potential research and management areas. Participants suggested that UNEP/CMS would contact turtle conservationists. The use of the UNEP/CMS Standardised Survey Questionnaire was also seen as helpful in establishing synergies.

Participants concluded there is a strong potential also in regional synergies and optimizing resources. Current overlaps existing with regards to research and monitoring are species and habitat studies, for example mortality, threats (pollution, storms, climate change), tagging, census methodology, habitat degradation, habitat study (oceanography, aerial studies, mapping). Further overlaps are National Action Plans, Marine Protected Areas, networks (for both intra and inter), fishing gear studies, socio-economic

¹ The International Sea Turtle Society

studies and community based organizations, and legislation for endangered species (management of protected areas in the region – practical, cost & reporting).

One group stated the research agencies for the two species are the same, but people are different. There is not much previous research on overlap, but potential exists, also for monitoring overlap. Also, some countries are not range states for both marine turtles and dugongs. However, there is potential for more habitat conservation focus. It was noted that Saudi Arabia and the United Arab Emirates have similar authorities. Species and habitat are almost the same; problems are the same, and solutions similar. Species capture is dissimilar and instruments are different, but there are strong synergies. If efforts were put together, two similar projects would not be running parallel. Project would not exactly be “cost-effective”, but costs could be brought down.

There is already strong overlap in legislation and conservation activities in most countries, for example MPAs. There are also law enforcement agencies, national and international (such as CITES, CMS, CBD) regarding fishing methods and fishing gear, pollution, development and trade. Opportunities for cross-species action exist – with a view to practicality (same focal points), cost, reporting and agency responsibility (national coordination between agencies, inter- and intradepartmental). It was stated that there is a need for stronger cross-agency communication. Regional synergies’ strong potential could be institutionalized, and harness the potential to make use of NGOs and regional agreements to facilitate across region.

Regional implementation of IOSEA MOU

Mr. Douglas Hykle presented a brief on national reporting. He also introduced new features in their website to the delegates.

Mr. Hykle talked about the IOSEA Marine Turtle MOU Secretariat, whose task is to coordinate and interact for better turtle conservation. There is an extensive website for information and a very good system of reporting in place. With the new Office in Abu Dhabi some funding exists as well. In Western Indian Ocean there has been no similar construction, but now there is a network put together. According to Mr. Hykle it has not been very successful but it is a starting point, and hopefully something similar can be put together in this region as well.

A point Mr. Hykle wanted to bring across was to take advantage of what is already there: a workshop like this one in Abu Dhabi should be used to disseminate information. There is surely value on presentations, but focus should be on analyzing that data – that is the value of the workshop.

What came out of previous turtle meetings were fisheries interactions. On the reports is displayed what each country has done or not done. With regards to this meeting and how group could promote implementing the Conservation and Management Plan, Mr. Hykle stated that one can make use of the tools we already have. Fisheries interaction can be used as a discussion point.