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

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8TH MEETING OF THE SIGNATORY STATES
Da Nang, Viet Nam, 21-25 October 2019
Agenda Item 6

REPORT OF THE 1ST MEETING OF THE NORTHERN INDIAN OCEAN MARINE TURTLE TASK FORCE (NIO-MTTF-1)

(Prepared by the Secretariat)

Action Requested:

- Take note of the report

Sub-regional Workshop to Establish the Northern Indian Ocean Marine Turtle Task Force

11-12 October 2015, Malé, Maldives

Table of Contents

1. Meeting inauguration and introduction to the workshop

Dr. M. Shiham Adam, Director General of the Marine Research Centre, Ministry of Fisheries and Agriculture opened the meeting and outlined the rationale for holding this workshop by referring to the discussions at the 7th IOSEA signatory States meeting, at which the Northern Indian Ocean (NIO) region was described as one of the less dynamic regions. He also mentioned the impending expiration of the moratorium to kill marine turtles in the Maldives in early 2016 and the opportunity to review and strengthen marine turtle conservation through the establishment of a dedicated Task Force for the region at this meeting.

Deputy Minister of Fisheries and Agriculture, Mr. Ahmed Hafiz highlighted that the Maldives provide a home to five marine turtle species, the most common being green and hawksbill turtles, which also nest in the Maldives. Indeed, there has been an increase of hawksbill nesting. Illegal poaching for shells, harvesting of eggs and marine debris nevertheless pose threats to turtles in the country and outside of the Maldives. Due to the highly migratory nature of turtles, threats to turtles along their range also threaten turtles in the Maldives. The Maldives still has a 10 year moratorium protecting sea turtles, which bans all forms of harvesting. They also have a good track record of conservation of tunas and sharks.

Clara Nobbe, Coordinator of the Secretariat of the IOSEA Marine Turtle Memorandum of Understanding (IOSEA MoU) provided a background to the IOSEA MoU, set out the sequence of sessions of the workshop and reemphasized the opportunity to establish a dynamic Task Force for cooperation in the implementation of the IOSEA MoU in the NIO region.

2. Country presentations

Bangladesh - Dr. Md. Mohiuddin, Deputy Secretary, Ministry of Environment & Forests, Bangladesh

India - Mr. Satya P Vashishth, Deputy Inspector General of Forests from the Ministry of Environment, Forest & Climate Change, India

Maldives - Ms. Khadeeja Ali, Senior Research Officer, Marine Research Centre, Ministry of Fisheries and Agriculture, Maldives

Pakistan - Mr. Adnan Hamid Khan, Game Officer Incharge, Marine Turtle Conservation Unit, Sindh Wildlife Department, Provincial Focal Point for IOSEA Marine Turtle MoU for Government of Sindh, Pakistan

Sri Lanka – Mr. Hitibandarale Dayawan Ratnayake, Director General, Department of Wildlife Conservation, Sri Lanka

Full presentations of each representative are annexed to this report.

Muralidharan from the Dakshin Foundation in India presented the informal network for marine turtle conservation in India on behalf of Dr. Kartik Shanker, Trustee, Dakshin Foundation and Associate Professor, Centre for Ecological Sciences, Indian Institute of Science who was unable to participate in the meeting due to health reasons. He stated that marine turtles have constituted for many years a flagship species for environmental conservation in India. After tigers, they constitute the most popular conservation species in India. There are many threats and challenges associated with marine turtle conservation. These include trawl fisheries and other fishing activities; tourism development; and a lot of coastal armoring. Conservation activities have been ongoing in India since the 1970s, including the monitoring of nesting beaches by students on the Chennai coast; hatchling programmes; groups of self-taught fishing communities doing conservation; and several community groups in Orissa, where the largest number of sea turtle NGOs can be found today, including Action for Protection of Wild Animals (APOWA) and others. An informal turtle action group with over 20 NGO members was started by Kartik Shanker and colleagues in Dakshin Foundation in 2009. Meetings take place in different coastal states and are organized by the local NGOs and local governments are involved. Among the activities being pursued by different research groups (Wildlife Institute of India, Indian Institute of Science, Dakshin Foundation and Nature Conservation Foundation) are long term monitoring of olive ridleys in Odisha and leatherback turtles in Andamans (IISc and DF); satellite tracking of olive ridley (WII) and leatherback turtles (IISc) on the Indian coast; mitigation of the conflict between fishing communities and green turtles in Lakshadweep (NCF); collaborative research and conservation (DF). The challenges require a regional network. However, some of the issues surrounding marine turtles may also be related to broader questions on marine conservation. Hence there is a need for taking an ecosystem approach not just a species conservation approach.

A presentation on ghost gear in the Indian Ocean was delivered by Martin Stelfox from the Olive Ridley Project (ORP). It described how fishing nets are lost, abandoned or discarded. Mostly, this did not occur on purpose, as such gear is expensive but rather due to bad weather or because it got snagged on the sea bed. Ghost gear constitutes a potentially large percent of marine debris in the Maldives. However, it is suggested that this debris is moved from other areas in the Indian Ocean to the Maldives, where it is trapped because several current patterns meet. The Olive Ridley Project contributes to the Global Ghost Gear Initiative (GGGI), formed by World Animal Protection. It addresses many types of fishing nets and fish aggregating devices (FADs), some of which can be traced from looking at the attachments. E.g. ghost gear has been found traceable to Thailand, India, Sri Lanka, etc. and Spanish purse seiners. They are mainly made of nylon, High Density Polyprophene (HDPP) and High-density polyethylene (HDPE). Nylon does not float and it is not really found in the Maldives, where mostly HDPP is found, which can float. Ongoing activities of ORP include the development of a manual on how to collect data in the region and to build evidence. Some data has been collected on ghost gear and animal entanglement (mostly olive ridley) already. This was done through surveying fishers. ORP is also developing an app to collect data from the field and store it through a cloud in a regional database. While ORP considers this to be a significant problem, it is assumed to be less significant than bycatch.

3. Identification of the roles of the Marine Turtle Task Force

Under the lead of Ms. Lindsey West, Vice-chair, Western Indian Marine Turtle Task Force (WIO MTTF), participants were introduced to the role and composition of a marine turtle Task Force based on the example of the Western Indian Ocean (WIO) region. Lindsey West invited participants to think about which aspects of that Task Force might be applicable to the NIO region. The WIO MTTF was created in 2008 under the IOSEA MoU and the Nairobi Convention. Its role is to facilitate implementation of the IOSEA Conservation and Management Plan (CMP) in the WIO region. Responsibilities stretch across the six main objectives of the IOSEA CMP, including strengthening regional cooperation, capacity building and soliciting funds. The WIO MTTF is a technical committee open to 11 countries, of which 10 are represented (exception is Somalia). It elects its Chair and Vice-chair from among its members. Members are nominated by each Government and serve for two years. They are eligible for re-nomination and reappointment. Members can be national focal points, researchers, NGOs, etc. Lindsey West, for example, is Director of an NGO (Sea Sense) and represents Tanzania as a country not the Tanzanian Government. The WIO MTTF developed its work programme at its first meeting, identified priorities, goals and objectives. The work programme was reviewed in 2012. It sets out specific actions under general headings of fisheries interactions, research and monitoring, social aspects, progress evaluation etc. The Task Force aims to meet once a year, usually at the WIOMSA symposium or back-to-back with an IOSEA signatory State Meeting or Nairobi Convention Conference of Parties. Achievements include: bringing member countries together and developing regional relationships; a training workshop on standardized beach monitoring protocols; support to the IOSEA Site network selection process; drafting a resolution on marine turtle protection for submission to the 8th COP meeting of the Nairobi Convention; and the development of the International Flipper Tag Recovery Database (IOSEA website). Challenges include limited time and resources, developing a shared vision for Task Force priorities and keeping members active outside of meetings. Lindsey West invited participants to consider how many members per country should comprise the NIO MTTF; how they should be selected (consider technical expertise for CMP implementation); how/when/where the NIO MTTF could meet; how financial resources for activities and meetings of the MTTF could be secured; where the synergies/overlaps of priorities identified by countries are and who could lead the new Task Force (considering the time commitment needed).

A lively discussion ensued the presentation with questions posed on the composition of the future NIO MTTF. Based on the WIO MTTF experience, Lindsey West suggested to first identify priorities and gaps and then see which persons would be best suited to become a member of the MTTF, as this should be people with turtle expertise rather than just political figures. She explained that in the WIO MTTF the first set of members were nominated by governments and were vetted by the IOSEA Advisory Committee. Now the Task Force operated more flexibly and there was no longer a need to have them vetted externally. Governments know those who are active in the region. Task Force members are responsible for feeding information back to the government and therefore have to have a good relationship with their Government. The Task Force Chair writes a meeting report and members submit it to their Government. A formal Task Force meeting report is filed with the IOSEA and Nairobi Convention Secretariats. Members of the WIO MTTF now tend to be more from research institutions and NGOs, as they are the ones doing the field work. Pakistan suggested that financial resources should

be identified before deciding on the arrangement of the Task Force. Lindsey West explained that the IOSEA Secretariat did support one of the WIO MTTF meetings but generally the Task Force tries to raise funds themselves. Clara Nobbe said that the IOSEA Secretariat was very interested in supporting any Task Force but that due to limited funds such support could not be counted on. She explained that the IOSEA MoU was non-binding and that therefore Signatories were under no obligation to pay contributions. Only 10 out of 35 signatory States had, in fact, paid their contributions in 2015. She confirmed that a State could apply through GEF or UNDP for funding activities of the future NIO MTTF. Clara Nobbe felt that the more specific activities of the Task Force are the easier it would be to find funders. India suggested that the NIO MTTF could have two representatives from each country: one from government and one researcher or NGO. Bangladesh stated that the option should be given to the Government on who would represent a Government. India suggested that it could also be the provincial Government. Sri Lanka pointed to the Focal Points set up at CITES, where the Government contacts are split into scientific and management authorities. In any case, Task Force members needed the power to implement the work programme. The scientific representative could be from a university or an NGO.

4. Identification of priorities for action and identification of work programme for Task Force

Based on the country presentations, Manjula Tiwari collected the high impact threats to marine turtles faced by each country:

COUNTRIES	**HIGH IMPACT THREATS**
Bangladesh	Bycatch, predation by dogs, habitat destruction (foraging ground), egg poaching
India	Nesting habitat shrinkage, plastics, egg predation, beach illumination, fisheries
Maldives	Poaching eggs and turtles
Pakistan	Predation, habitat degradation, bycatch
Sri Lanka	Bycatch, low level take

Participants then had an opportunity to confirm the list of threats that were named in the presentations. Manjula Tiwari explained that this list would form the basis for the development of the work programme by identifying priority actions corresponding to the high impact threats. She invited participants to break into working groups by each country, and further look at medium and high impact threats, prioritize them and to include unknown but suspected threats. She urged participants to also consider other concerns like, for example, headstarting and how to consolidate monitoring information. She invited participants to specify actions required to address each threat and identify the location where work needed to be done. Players who will implement each action should be listed and whether external help was required. Participants were also invited to mention funding available for specific actions or whether funding was required and to set out a timeline for activities, if possible.

Finally, Manjula Tiwari asked participants to also consider issues that needed to be addressed at regional level, including which collaborative research and conservation activities they would like to

address with one or more country. Working Groups were then formed for each country, consisting of both Governmental and non-governmental / expert participants.

In the ensuing session the working groups presented their results on threats, actions to address threats, key players, external assistance and funding required and the following was identified for each country:

Bangladesh

High impact threats:
- Bycatch
- Habitat destruction (nesting and foraging) due to coastal development e.g. unplanned resorts, bio-illumination, beach armoring

Medium to low impact threats:
- Poaching
- Nest predation

Threats with unknown impacts:
- Climate change e.g. sea level rise

Actions to address threats:
- Bycatch monitoring - in water and on boat; introduction of Turtle Excluding Devices (TEDs) for trawlers and seine bag net; fisher training in TEDs and awareness
- Seasonal ban of fishing in priority areas
- Challenge - inter-governmental coordination and cooperation for e.g. legislation and TEDs; legal export of shrimp to USA requires mandatory use of TEDs
- Enforcing laws on development and lighting
- Establishing turtles as iconic species in Bangladesh and general increase in community awareness
- Establishing Marine Protected Area for sea turtle, cetaceans, and migratory seabirds
- Establishing a rehabilitation center in Cox's Bazaar with the Forest Department for turtles that need recovery after entanglement; a second location would also be beneficial
- Initiative to control dogs e.g. desexing; relocation of nests to hatchery

Key players:
- Ministry of Environment and Forests
- Department of Forests
- MarineLife Alliance
- Other NGOs

External assistance:
- Regional workshop on bycatch reduction, coastal development for knowledge sharing and practical experience
- Fisheries workshop e.g. circle hooks

- Expansion of unplanned beachside resorts resulting in habitat destruction and bio-illumination needs to be controlled - light regulations; designated tourist/development zones
- Very difficult to mitigate beach armoring as put in place in previous years

Funding:

- Current funding from World Bank close to being completed; future funding will need to be sought. Partial funding may be provided from the Bangladesh Government but money should also be sought from US Fish and Wildlife Service or similar funding agencies.

Timeline:

- Projects to mitigate all threats need to be ongoing but funding is usually for one year only which makes planning difficult

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India

High impact threats:

- Indirect - Habitat
  - Large-scale coastal developmental activities: Ports, Factories, Offshore oil explorations
  - Coastal encroachments: Hotels, roads, armouring, walls
  - Erosion: Natural, indirect effects of other coastal management
  - Coastal Illumination
- Direct – Species
  - By-catch related

Medium impact threats:

- Coastal vegetation
- Marine pollution
- Egg predation

Low impact threats:

- Uncontrolled tourism

Other Concerns:

- Identifying fishing practices methods and associated destruction
- Lack of information on threats due to impacts of gear loss and ghost nets

Actions to address threats:

High impacts

- Mapping and identifying highly important nesting grounds and addressing existing legislature to intervene in these situations working on a case by case situation
- Identify causes of erosion and using necessary intervention actions to combat coastal erosion
- Developing a new coastal lighting policy to include into the existing WLPA
- Encouraging alternative viable fishing practices

- Increased and effective patrolling of important sea turtle habitats
- Better coordination between fisheries and wildlife departments to reduce conflicting policy changes

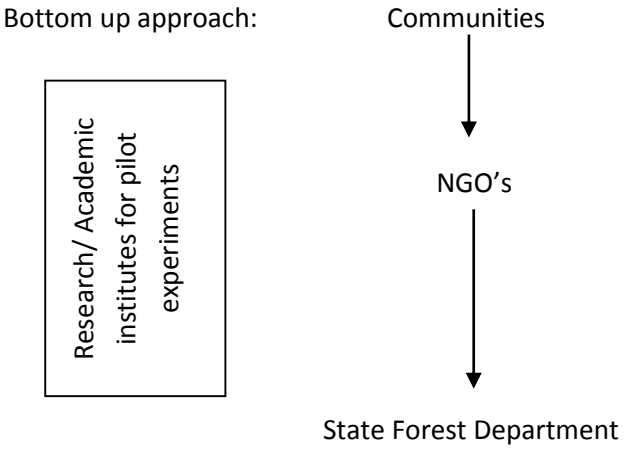
Medium impacts

- Phasing out existing exotic coastal plantations and shifting to more native coastal vegetation.
- Identifying the extent and sources of high marine pollution areas to initiate mitigation actions
- Identifying best hatchery management practices and In-situ protection measures with more increased community participation

Low Impacts

- Currently not much knowledge on tourism related impacts on turtle populations in India.

Key players:



External assistance:
Regular Exchange of domain knowledge as and when required. The associated institute/research organization to be identified according to requirements.

Funding:
Can be partially covered but due to the larger area of coverage, this will require matching funding.

Timeline: N/A

Maldives

High impact threats:

- Turtle and egg poaching

- Coastal development
- Entanglement of ghost nets is a high impact for olive ridley turtles

Medium to low impact threats:

- Harvesting of hatchlings as pets is a suspected threat

Actions to address threats:

- Address by community outreach programmes. Educational materials that can be easily used by schools, NGOs. Turtle festivals every other year by MRC, NGOs, resorts. Strengthen enforcement.
- Mitigation at islands that are hotspots for nesting: limit beach activity, dim the lights, limit removal of seagrass beds by resorts
- Information on proper removal and disposal of nets, strengthen data collection and report to relevant Regional Fisheries Management Organisations (RFMOs).
- Community outreach programmes, educational material, information sharing, etc.

Key players:

- Government agencies collaborate with NGOs and Marine Police

External assistance:

Expert assistance required for mitigating impact of coastal development on nesting and foraging populations

Funding:

Current funding source for two-year outreach programmes would be from the Marine Conservation Trust Fund at Ministry of Fisheries and Agriculture. For long-term outreach programmes additional funding would be required

Timeline: 2016-2018

Pakistan

High impact threats:

- Bycatch - Impacts of all fishing gears (trawls, monofilament gillnet, tuna gillnets (pelagic and bottom set). Unknown is post release mortality and of other concern are data gaps (stranding of turtles, lack of observer coverage, species composition).

- Ghost net entanglement through plastic material. Since the extent of damage through ghost gear to the marine environment is unknown, there is a need to conduct an assessment and determine the level of threat.

Medium to low impact threats:

- Predation of eggs through Asiatic jackals, feral dogs, crows, kites and sea birds (gulls and terns), and sand mining. Unknown is predation by marine animals of juveniles and of other concern is the conflict between government and local community on stray dogs' removal.

- Habitat Degradation of nesting grounds (pollution, coastal development) through untreated waste dump in sea, establishing set back lines, Picnickers, construction of huts along the major turtle beaches. Debris of collapsed and damaged hutments. Unknown threats are submerged construction, cable and other similar structures and of other concern is the development vs conservation debate and that there is no clear Government policy on beach construction.

- Interaction with coastal fishers, in particular bycatch of juveniles and adults. Unknown is the threat from anchorage of fishing vessels on corals and other feeding areas and of other concern are oil spillages.

Actions to address threats:

High impacts

- Data collection, training of observers (fishers) and safe releases, pilot bycatch reduction technologies in gillnets (LED lights), delimiting gillnet lengths and size, gear modification.

- Awareness, survey and assessment, removal of ghost nets, training and capacity building stakeholders. Legislation to control solid waste in sea.

Medium impacts

- Hatchery development and management, Community participation

- Review of bylaws of jurisdiction authority, Implementation of legislation, zoning/area planning/marine spatial planning, declaration of nesting and foraging beaches as Turtle protected reserves,

- Data collection, awareness, training for safe release, modification of nets

Key players:
Local land administrative departments, Board of Revenue, KPT, KMC, PEPA, Provincial Wildlife Department, WWF, IUCN

External assistance:
Expert consultations and technical support is needed.

Funding:
Some funding is required, albeit some of the activities (data collection, observer training, gear modification) will be covered under existing marine projects.

Timeline: 2016 - 2017

Sri Lanka

High impact threats:

- Bycatch
- Egg poaching

Medium to low impact threats:

- Habitat destruction

Actions to address threats:

By-catch

- Seeking the net design to minimize the by-catch
- Conduct awareness to the fishing communities to release live turtles from the nets without harming them.
- Identification of key foraging grounds and migratory routes to give more attention
- Highly sensitive foraging grounds and migratory routes declare as protected areas.

Egg poaching

- Implementation of legislation
- Involvement of community participation to protect turtle nests and provide loyalty fee after hatching of the nests.

Habitat destruction

- Law enforcement
- Community awareness

Locations: All around the country

Key players:

- Department of Wildlife Conservation and other relevant government agencies.
- NGO's
- Research organizations

External assistance:
Partially required

Funding:
Partially required

Timeline: Projects to start January 2016

Having identified priority actions to address the high and medium impact threats in each country, as well as at the regional level, the meeting adjourned.

Continuation of identification of priorities for action and identification of work programme for Task Force

Building on the discussions that took place the previous day, Manjula Tiwari invited participants to state those issues that they perceived as most essential to be addressed at the regional level. The following issues were identified by participants:

Bangladesh - requested greater collaboration/coordination with Myanmar and India. Some boundaries between Bangladesh and India where turtles are migrating. Smuggling routes for turtles. Need to exchange information. Also migrating in waters between Bangladesh, India and Myanmar. Need research and collaboration and regular exchange of information. Have emailed Myanmar but no response.

India - collaborative research and conservation with Sri Lanka and Maldives on Lakshadweep and other migrating turtles.

Sri Lanka – collaborative research and protection – trans-boundary turtle migration routes and impacts to the foraging habitats – with India.

Pakistan – collaborative research and protection – trans-boundary turtle migration routes and impacts to the foraging habitats – with India, Sri Lanka and Maldives; nesting data exchange with India; collaborations with NWIO region.

Meeting participants then jointly identified the broader regional issues listed below to be integrated into the joint work programme of the NIO MTTF. They are not prioritized and many may be cross-cutting. A number of participants volunteered to provide further information and input on specific issues. These persons have been identified in brackets behind the issues concerned:

- Fisheries/bycatch: training of observers; soak time; training for safe releases; reduction technologies (TEDs, LED lights, etc.); delimiting net sizes; enforcing compliance with fishing regulations; gear modification; promotion of low impact fishing gear; estimation of magnitude of bycatch to prioritize conservation efforts; identifying gear nets being used; taking a multi-species approach (Umair Shahid, WWF-Pakistan)
- Ghost nets: direct dialogue/surveys with fishermen; use of standardized data collection protocol (get protocols from Martin Stelfox, Olive Ridley Project)
- Standardized monitoring protocol – nesting beaches; hatchery and head-starting practices; in-water studies (photo identification, etc.); strandings (data collection, database); tissue sampling; determining sex ratios (Andrea Phillott, Asian University for Women)
- Collaborative research on and protection of all species: genetics; satellite telemetry; regional flipper tagging database/addressing gaps; satellite telemetry – indicating if one is deploying transmitters; providing link to tracks, if possible (if donors are willing to share, can use seaturtle.org); identifying high-use foraging grounds; identifying key nesting, foraging, developmental habitats and migratory corridors; maintaining long-term index monitoring sites
- Sustainable eco-tourism: establishing guidelines; determining areas where eco-tourism might need to be promoted; can be used as research centers
- Head-starting practices: review the extent of head-starting practices in each country and determine areas of improvement/alternatives (Andrea Phillott, Asian University for Women)
- Coastal development and bio-illumination; each country to provide information to the IOSEA Secretariat, which will then be discussed with governments; best practices from other countries to be made available to the NIO (for example information on this from Florida); focal points should be encouraged to use local consultants/experts rather than international consultants/experts for EIAs
- Socio-economic issues – alternative livelihoods; community participation/partnership; increased stakeholder involvement in sea turtle conservation/data collection; determine best practices (social sciences – literature review) (Andrea Phillott, Asian University for Women)
- Impact of climate change – sand/pivotal temperatures; review of climate change data in the literature (Andrea Phillott, Asian University for Women)
- Marine pollution – review of micro/macro-plastics; literature review; successful case studies of reducing beach pollution; education and awareness; beach clean-ups; engaging recycling companies (Martin Stelfox, Olive Ridley Project to provide info on company that produces skateboards and Annie Kurian, Terra Marine Research Institute of possibilities of turning bottles into solar lamps and teaching fishing communities to do this); impact of oil/hydrocarbons on marine turtles (Pakistan has found contamination of turtles and eggs); determining how plastics/marine debris can be used by local communities to create handicrafts, useable items (e.g. solar lamps), etc.; campaigns to discourage use of plastics (Martin Stelfox, Olive Ridley Project, Annie Kurian, Terra Marine Research Institute)
- Citizen science – engaging recreational divers; educate on data collection and species identification, etc. (Martin Stelfox, Olive Ridley Project)
- Review sustainable use and the need for it to persist (Andrea Phillott, Asian University for Women)

An issue which was identified as important yet, in light of the long list of priorities an issue to be addressed in the long-term, was illegal, unregulated and unreported (IUU) fishing. Here a regional approach in the engagement with RFMOs was suggested (Umair Shahid, WWF-Pakistan).

Manjula Tiwari explained that the above list would constitute the joint work programme of the NIO MTTF and turned into table format. A discussion on timelines followed for those who had volunteered to provide information and input. These timelines will be added to the table format of the work programme. When information is available, this should be sent to the IOSEA Secretariat who would forward it to the Chair and Vice-chair of the NIO MTTF for further distribution. Andrea Phillott to provide study on hatchery practices by January/February 2016 and all other reviews by May 2016.
Martin Stelfox to provide info on divers right away and updates as requested by Secretariat. WWF Pakistan on fisheries pilots by end of 2016. As it might be harder to set timelines for other topics it was agreed that Task Force members would regularly report to the Secretariat on updates.

With regard to the actors that would be essential to implementing the regional activities as well as funding issues, Bangladesh stated that they had a list of the work and would see who from the University of Chittagong could help. Other important actors are both the Department of Marine Fisheries and the Department of Forests. Funding was identified as another problem. India confirmed the list to be complete. With regard to actors it requested to add fisheries department and the tourism sector. Annie Kurian mentioned the possibilities to also utilize the network of divers and surfers. The Maldives suggested to add to the list of actors the EPA, the Ministry of Fisheries and Agriculture, Ministry of Environment and Energy and the network of marine biologists based at resorts, live aboard association, diving community. Pakistan suggested it would revise its list and send the revised version via email. Sri Lanka confirmed that its list was complete.

Manjula Tiwari thanked the participants for the constructive input and reminded countries to keep the challenging work programme and agreed activities in mind when selecting members of the Task Force.

5. Setting up of Marine Turtle Task Force, including determining and adoption of Terms of Reference and election of Chair and Vice-chair

The session was led by Lindsey West who reiterated the time commitment expected from the Chair and Vice-chair in performing that role. Responding to the question of how many members the Task Force should have per country, Sri Lanka expressed its preference of having two members from each country. One should be from the Government while the other one should be an expert, similar to the management/scientific authority set-up in CITES. The second member could thus be from an NGO or university. Each country could have its own subcommittee to work with all stakeholders at the national level to provide advice to the Task Force members. Bangladesh and India supported Sri Lanka. Based on the WIO MTTF example, Clara Nobbe suggested to keep the arrangement even more flexible, in that the governmental members of the Task Force could send an expert in their place if they could not attend. Sri Lanka reiterated that the Task Force should work like CITES, as the Government was needed for implementation. The second member should be technical, probably from an NGO but in any case he/she should be an expert. Bangladesh re-emphasized that the first member must be from government, while

the second could be flexible but would need to be an expert either from government or non-governmental. Consensus among all five Government representatives was reached when the Maldives and Pakistan agreed to the Task Force comprising of two members from each country, one from Government and one non-governmental.

In order to consider the question of how members should be selected, Lindsey West emphasized the need for participants to consider the technical expertise required to implement the work programme. While the IOSEA Focal Point seemed to be a natural choice for the governmental slot in the Task Force, Pakistan was concerned that technical expertise may be required from a Task Force member that the Focal Point may not have. It was therefore decided that the governmental Task Force member should be selected by the Government on the basis of the expertise currently required by the Task Force. The non-governmental Task Force member should also be selected by the Government based on his/her technical expertise.

Participants agreed that the answer to the question on how, where and when the Task Force should meet would be a matter of availability of financial resources. However, participants agreed that the Task Force should strive to meet once a year and perhaps piggy-back on other regional initiatives, as well as the IOSEA signatory States meetings. Participants agreed that it was important to have a first meeting as soon as possible to get started on the implementation of the work programme. The Maldives were identified as central location, for which none of the five nationalities required a visa. Responding to the question on whether the IOSEA Secretariat could provide funds, Clara Nobbe stated that all funds would have to be raised from scratch. Andrea Phillott pointed out that there are grants available that the Task Force could apply for. Umair Shahid said that WWF-Pakistan might hold a regional workshop on marine turtles, which might be an opportunity for a side meeting of the Task Force, including field related conservation activities. It could be strategic and interesting to incorporate feedback from the Task Force. For example, expertise on ghost nets could be utilized and the theoretical work could be married with certain field work. Yet, diplomatic strains between India and Pakistan would, however, have to be considered, as passport holders of each of those countries might not be able to receive visas for the other.

In order to answer the question of who should lead the Task Force, Lindsey West stressed that the time commitment expected from the Chair and Vice-chair should be considered, in particular in light of the ambitious work programme. Furthermore, the persons should be well connected and respected in the region. Particularly in the early days of the Task Force, the Chair and Vice-chair had an important role to play in getting Task Force members used to their new roles. Since all Governments of the region were represented at the workshop it was suggested that they also nominate Task Force members, including the Chair and Vice-chair. The Secretariat clarified that all had presented credentials, which would allow them to make the nominations during the meeting. Sri Lanka stated that they would like to select a Government representative as Chair and Vice-chair and only let countries choose the Chair and Vice-chair. A lively discussion ensued, in which Umair Shahid nominated Shiham Adam (Maldives) as Chair, who declined, because of over-commitment. The Maldives therefore nominated Muralidharan (Dakshin Foundation, India) as Chair and Umair Shahid (WWF Pakistan) as Vice-chair. Both said that this was their first IOSEA meeting and given the expertise in the room wanted to hear what others had to say. Lindsey

West reiterated the role of Chair and Vice-chair in coordinating the Task Force rather than doing all the work, as well as providing information back to the Secretariat, writing reports and engaging in fundraising. It was not to implement the work programme by themselves but coordinating members so that they all could implement their parts of the work programme. Bangladesh stated that they preferred at least one of the Chair or Vice-chair to be from Government and not that both are from NGOs. Hence Bangladesh suggested that the Maldives provide the Chair. Umair Shahid declined his nomination and suggested Khadeeja Ali (Maldives) for Chair and Muralidharan as Vice-chair. Khadeeja Ali (Maldives) therefore said she would be happy to serve as Vice-chair. Sri Lanka said that it first wanted to set the principles and decide on the Terms of Reference (ToRs) of the Task Force, in particular the principles on how to elect the Chair and Vice-chair. Pakistan then stated that the Chair and co-Chair should come from government, supported by the NGO experts. India said that the roles of Chair and Vice-chair should be provided by countries and not in be held in the personal capacity of Task Force members. Manjula Tiwari reminded the participants that there was a motion on the table for election of Muralidharan as Chair and the Khadeeja Ali (Maldives) as Vice-chair. All Government participants then agreed to their election.

Draft ToRs, prepared by the Secretariat based on the discussions of earlier sessions of the workshop as well as the ToRs of the WIO MTTF, were projected on a screen and the text discussed and adopted section by section. While it was agreed that membership of the Task Force should officially be limited to the NIO region countries, there are no objections to inviting other countries, such as Myanmar to attend Task Force meetings as an observer. As agreed earlier, all Task Force members should be appointed by Governments. Observers under category three of the ToRs could be proposed by the Chair of the Task Force in consultation with the Task Force members or the IOSEA Secretariat.

It was discussed and agreed that the maximum number of terms that a Chair and Vice-chair could serve would be limited to two.

The Maldives and India suggested, and it was agreed, that all decisions of the Task Force should be reached by consensus. No voting should be introduced.

Discussions arose as to the role of the IOSEA Advisory Committee and the Secretariat in the development of the regional work programme. Pakistan suggested that the Advisory Committee could advise on the guidelines for the Task Force. India suggested to let the Task Force decide the priorities of the actions. This could occur simultaneously seeking advice from the Advisory Committee, if necessary, Pakistan suggested. The Maldives felt that the Advisory Committee and/or Secretariat should act as a reality check to ensure that the NIO Signatories are on the right course. Lindsey West, based on her experience in the WIO region, concurred that there should be some link to the IOSEA Advisory Committee and/or Secretariat. She confirmed that the Advisory Committee has been useful in asking the Task Force members some questions and providing them with a new or broader perspective. Such advice would not take away the autonomy of the Task Force. It was thus agreed that the regional work programme should be in line with the priorities identified by the latest signatory States meeting and developed with the of the IOSEA Advisory Committee, if necessary. No objections to this proposal could be found in the mandate and role of the Advisory Committee.

On the question of how to report on Task Force activities, participants felt that this should occur regularly but at the same time not place too heavy of a burden on the members. It was therefore suggested that members should communicate the implementation of the regional work programme to the Chair of the Task Force, who should provide annual updates on the activities and implementation of the regional work programme of the Task Force to the IOSEA Secretariat as well as to each of the Meetings of signatory States. This arrangement would not prevent countries' communicating directly with the Secretariat.

In relation to meetings and communications of the Task Force there was concern that not all Task Force members might be able to participate in a meeting if that meeting was held in the margins of an IOSEA signatory States meeting or other initiative. The Maldives asked if there needed to be a quorum when Task Force members met. Also the question whether a Task Force meeting was possible if the Chair and Vice-chair were not present? Could the members present take a decision? India stated that the Chair or Vice-chair had to be present and at least one member from each country. It was then agreed in the ToRs that a quorum would be complete when at least one member from each country is present in a meeting. While everyone agreed that meetings should be held annually, India and Maldives requested to take out the wording 'subject to availability of funds' as no meeting might be attempted to be held then. It was agreed that meetings can be held in different venues subject to mutual consent of Task Force members.

On the Mandate of the NIO MTTF, the Secretariat clarified that this was directly copied and pasted from that of the WIO MTTF. No edits were requested by participants. On the 'Review and Reporting' section of the ToRs, the mention of 'aquaria' was removed. With regard to the collaboration with regional organisations the Maldives suggested to insert 'IOTC, BOBP-IGO, SACEP and BOBLEME Project' and Bangladesh 'SRCWPP'. 'IUCN, WWF' and 'relevant SAARC Centres' were also added.

The issue of nomination of experts from NGOs or scientific institutions was raised again. India, Bangladesh and Sri Lanka said that they would not be able to make nominations during the meeting, as their pool of experts was very large and they had to consult with their Governments to ensure that the best expert would be chosen. The Maldives stated that they would like to have Martin Stelfox with his expertise in ghost gear nominated within the third category of Task Force members as an observer. It was agreed that the Secretariat would send a communication to Governments requesting for members of the Task Force to be nominated.

6. Discussion and adoption of Statement

A short draft statement was introduced to the participants that could be submitted as part of a press release and output of this meeting. Projected on the screen, the draft was discussed by participants and then adopted with a few minor edits.

The Secretariat informed the participants that a section dedicated to the NIO MTTF would be established on the IOSEA website, where all the information will be uploaded.

7. Introduction to submission of site network proposals for IOSEA Site Network, and identification of potential sites

Due to time constraints this session had to be substantially shortened. The Secretariat introduced the procedure and documents to be submitted by proponents through IOSEA Focal points for the nomination of a site of importance for marine turtles to the IOSEA Site Network. Participants were guided through the section on the IOSEA website where the Site Information Sheet and Evaluation Criteria could be downloaded. Lindsey West, who had successfully submitted a proposal for inclusion of the Rufiji Mafia Seascape through the Tanzanian Focal Point spoke about her experience, highlighting the need for proponents to succinctly match the information submitted against the evaluation criteria used by the Advisory Committee to assess the merits of the site.

8. Introduction to IOSEA-MoU online applications

Due to time constraints, this session had to be canceled.

9. Discussion and adoption of statement, review and wrap up of workshop

The Government of the Maldives thanked the participants and speakers for their contributions. The IOSEA Secretariat thanked the Government of the Maldives for their exceptional cooperation and enthusiasm in preparing this meeting.

The meeting was closed.

CMS IOSEA HUMANE SOCIETY INTERNATIONAL Mangroves for the Future INVESTING IN COASTAL ECOSYSTEMS UNDP

SUBREGIONAL WORKSHOP ON THE ESTABLISHMENT OF A MARINE TURTLE TASKFORCE IN THE NORTHERN INDIAN OCEAN

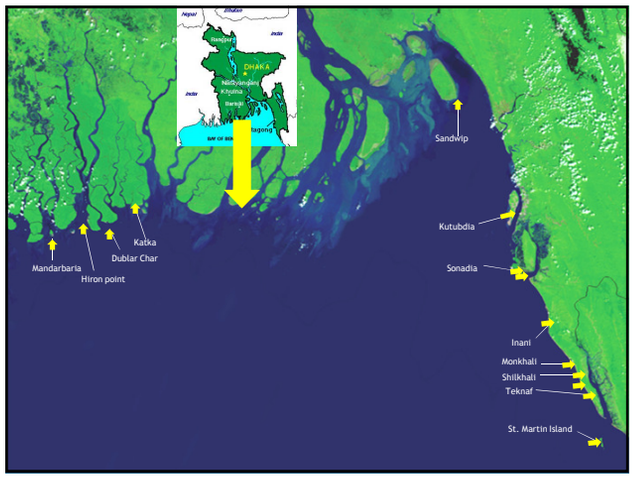
MALE, MALDIVES
11-12 OCTOBER, 2015

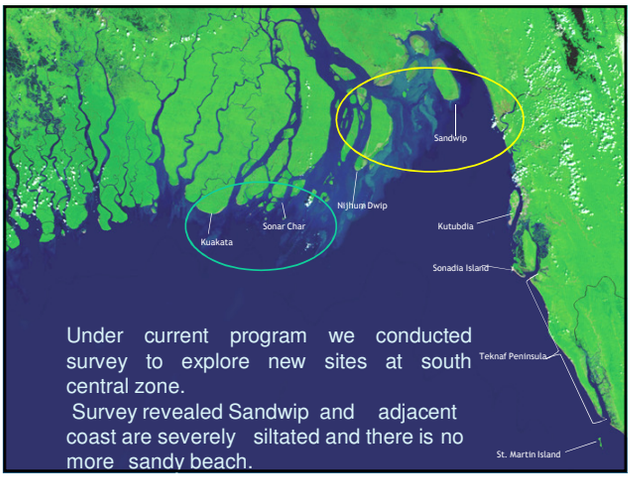
COUNTRY PRESENTATION
BANGLADESH

Dr. Md. Mohiuddin
Deputy Secretary
Ministry of Environment and Forests
Bangladesh

SEA TURTLE CONSERVATION BACKGROUND

- Until 1996 all of the sea turtle records in Bangladesh were Incidental and conducted by researchers during annual water bird survey.
- In 1996, October practically sea turtle monitoring started at St. Martin Island;
- In 1999 expanded to Teknaf peninsula in about 15 beach strip,
- In 2004 started at Sonadia Island, and more spots at Teknaf peninsula;
- In 2013 we started sea turtle program at entire coast except the mangrove Sundarbans.
- Sea turtle included in the wildlife Act 2012, (10th July 2012)schedule 1. 5 species are included.



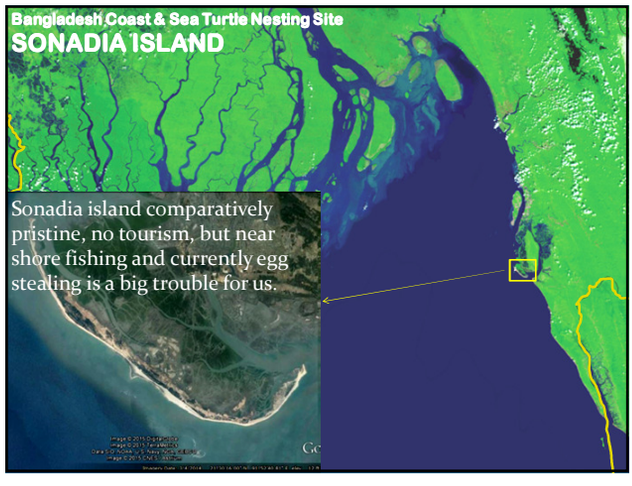


Under current program we conducted survey to explore new sites at south central zone.

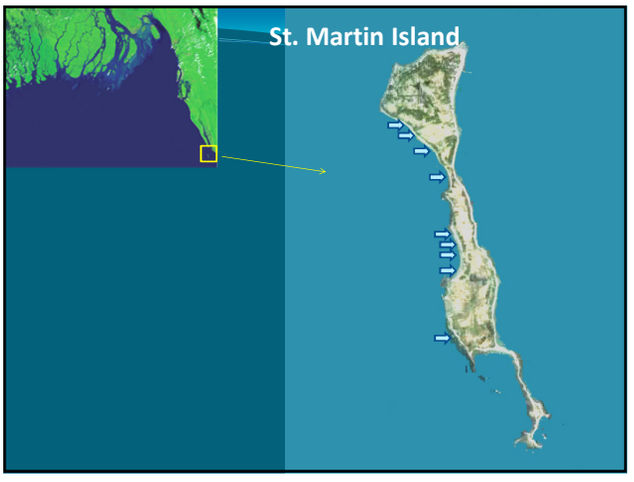
Survey revealed Sandwip and adjacent coast are severely siltated and there is no more sandy beach.

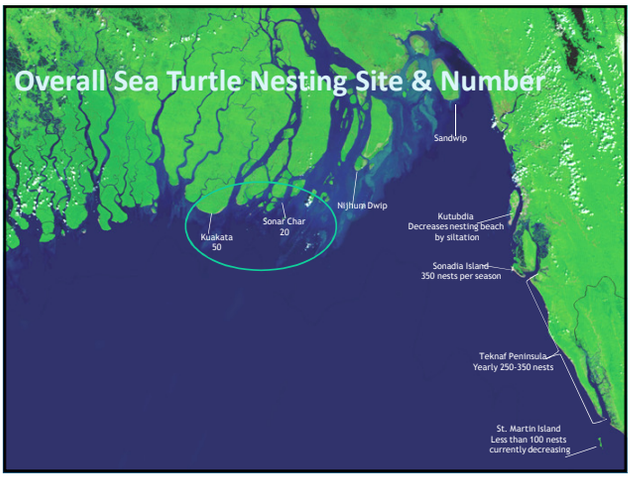
Bangladesh Coast & Sea Turtle Nesting Site

SONADIA ISLAND



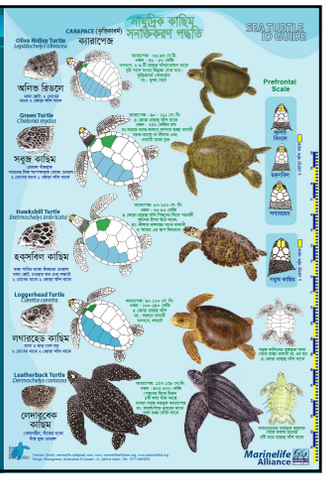
Sonadia island comparatively pristine, no tourism, but near shore fishing and currently egg stealing is a big trouble for us.





Nesting sea turtle monitoring

- Deploy 70-85 local people during winter to monitor nesting and stranding turtle
- At Sonadia, St. Martin Island, Teknaf peninsula, Kutubdia, Dholghata of the south east coast.
- At the Kuakata and Sonar Char of the south central coast of Bangladesh.



STRENTHENING REGIONAL COOPERATION FOR WILDLIFE PROTECTION PROJECT(SRCWPP) –MARINELIFE ALLIANCE

Activities

- *Nesting beach Exploration.*
- *Nesting Sea Turtle Monitoring.*
- *Satellite tracking*
- *Foraging habitat survey*
- *Offshore fisheries survey*
- *Training of Local Community & Forest Staff.*
- *Sea turtle conservation by community people*
- *Awareness Campaign with Grassroots*
- *Training of offshore fisher's to reduce By-catch.*
- *Management Plan for conservation and monitoring*

Nesting Turtles

Olive Ridley
Lepidochelys olivacea

Green Turtle:
Chelonia mydas

Hawksbill Turtle
Eretmochelys imbricata

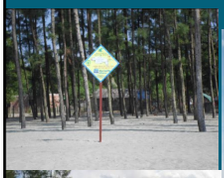
FIELD SET-UP

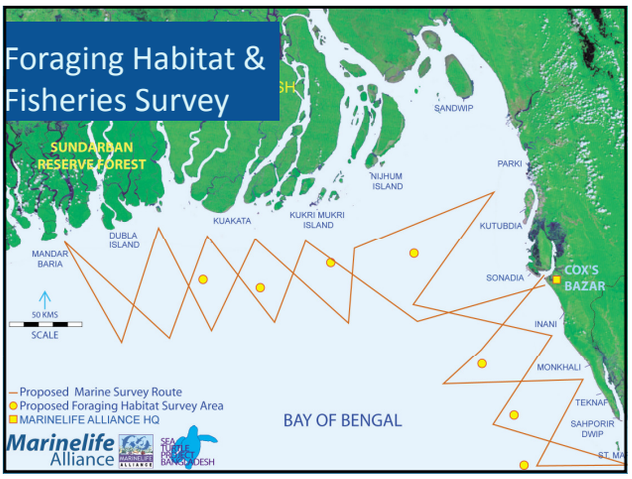
- Sea turtle monitoring sheds along coast of Cox's Bazar and Sonadia.
- Nesting beach signs at the nesting beach designating nesting beach for public awareness,
- Produced in situ conservation bamboo fence for the nest protection,
- Installed small relocated eggs hatching ground enclosure.
- Beach Marker along coast.

Nest Enclosure

Field Signs along the nesting beach

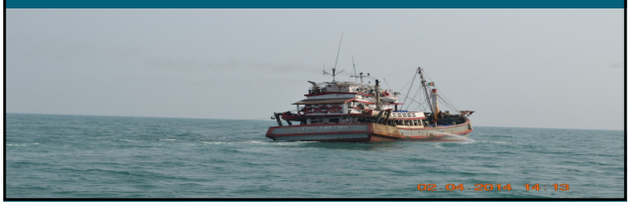
Nesting Beach Field Signs





Foraging Habitat & Marine Survey

- Conduct survey in coastal & offshore areas
- collecting information on turtle bycatch, fishing activities and the dimension of the threats.
- The overall environmental and oceanographic data has been collected like depth. SST, Location continuously along the tracking line.
- In addition deployed fishing net (gill net) to study the foraging/turtle entanglement.



Foraging & Marine Fisheries Survey

Conducted marine survey with fishing boats (currently ongoing).

Sea Turtle Monitoring & Conservation

In situ Nest Protection at Sonadia Island

RELOCATED EGGS HATCHING GROUND

SEA TURTLE HATCHLING RELEASE

Awareness, Education with Grassroots

- Awareness & Orientation program with the community and offshore fishermen at Cox's Bazar area emphasizing the intense of the bycatch in the offshore fishing activity, the role of sea turtle in the ocean environment and asking for fisher's cooperation to save sea turtle and other marine mega fauna.
- **Sea Turtle School Education Program**: at Cox's Bazar area and currently this is ongoing activity; will be continued during the monsoon as researchers will have time out of the nesting busy season.

Training of Local Community.

- Day long program how to observe turtle, conserve and mitigate the threats on the spot.

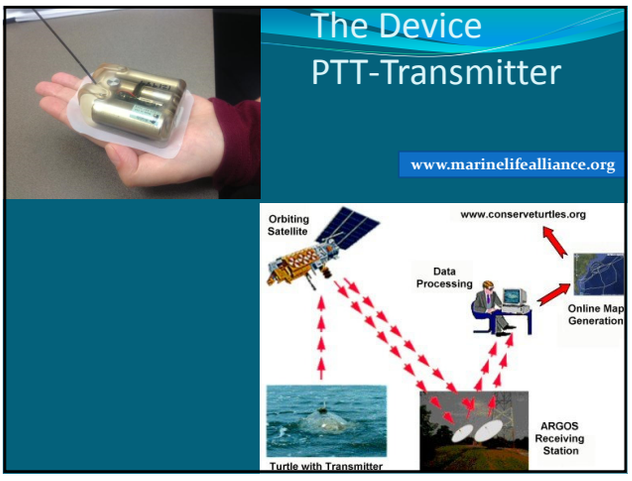
Migration Study

- Satellite Tracking
- Flipper Tagging
- PIT (Passive Integrated Transponder)Tagging

Satellite Tracking

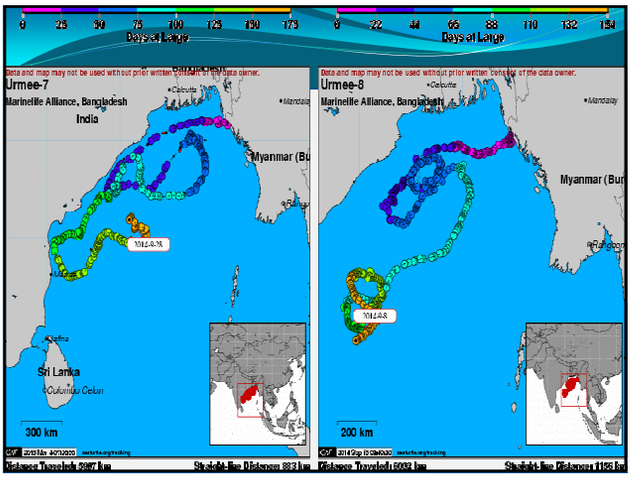
- Total 12 satellite transmitter (SPOT5, Wildlife Computer) attachment has been completed on Olive Ridley.
- We are doing 12 more in the coming season (2015-16) to cover the south central zone and also include green turtle. The tracking turtle name and data has been mentioned below. and also can be seen updated location from weblink:
  www.seaturtle.org/tracking/index.shtml?project_id=487

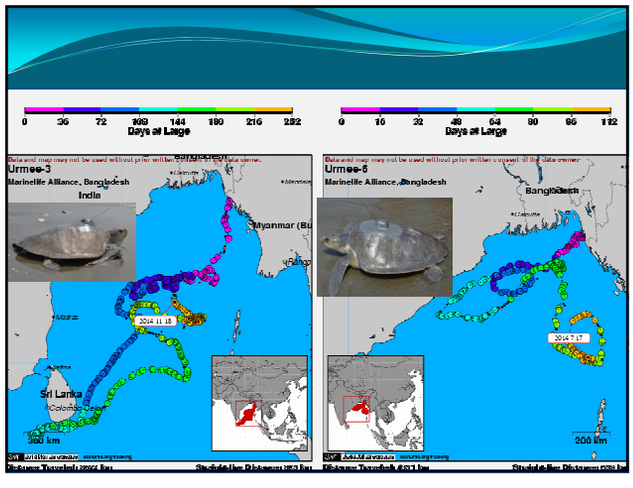
Satellite Tagging Locations

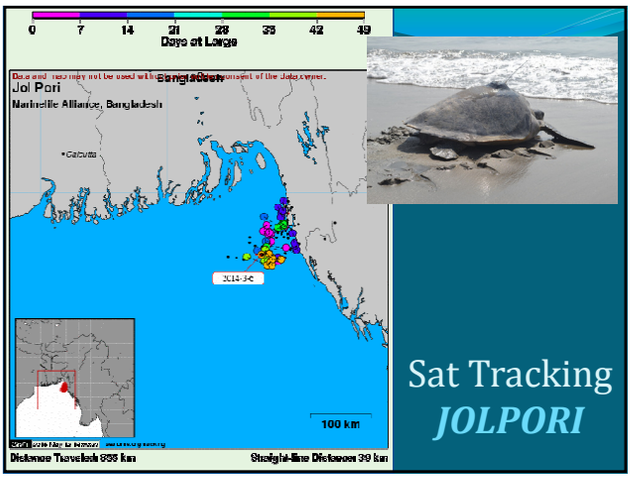


Satellite Tagging Summery

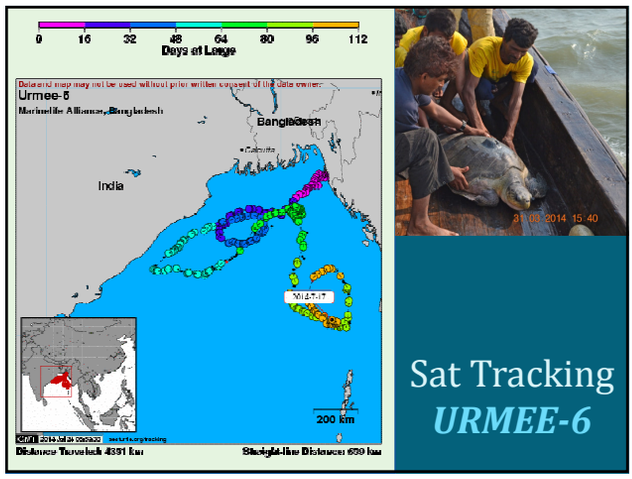
Name	Species	Life Stage	Deploy Area	Date Release	Date Last Location
Jol Pori	Olive Ridley	Adult	Sonadia	2014-01-21	2014-04-06
Urmee-2	Olive Ridley	Adult	Sahporirdwip Teknaf Peninsula	2014-03-19	2014-04-10
Urmee-3	Olive Ridley	Adult	Sahporirdwip Teknaf Peninsula	2014-03-21	2014-08-30
Urmee-4	Olive Ridley	Adult	Bainnapara, Shilkhali Teknaf Peninsula	2014-03-27	2014-04-16
Urmee-5	Olive Ridley	Adult	Sepotkhali Teknaf peninsula	2014-03-28	2014-04-16
Urmee-6	Olive Ridley	Adult	Dholghata, Offshore	2014-03-31	2014-04-16
Urmee-7	Olive Ridley	Adult	Jahajpura Teknaf peninsula	2014-04-07	2014-08-29
Urmee-8	Olive Ridley	Adult	Sahporirdwip Teknaf Peninsula	2014-04-14	2014-08-30
Sagorkonna-2	Olive Ridley	Adult	Shilkhali Teknaf Peninsula	2014-03-26	2014-04-16



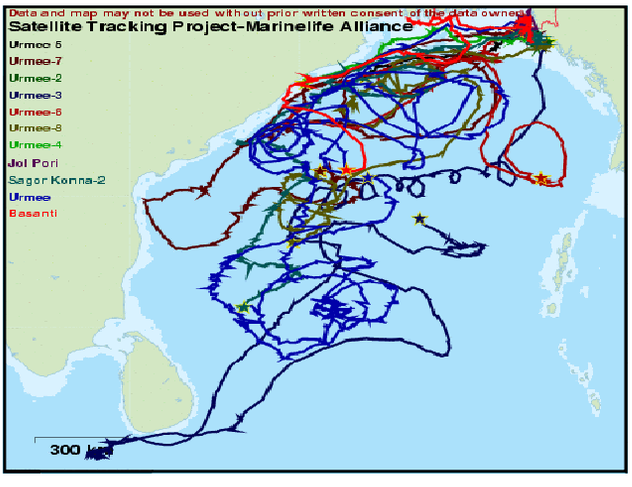




Sat Tracking
JOLPORI



Sat Tracking
URMEE-6



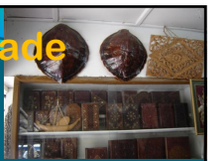
Flipper Tagging

- Flipper tags number with **BD0001-BD2000** are being attached on each nesting and foraging turtles to know the population size. This tag recovery also contribute information on turtle movement & migration, nesting site fidelity, threats etc.

Conservation sea turtle helps bycatch reduction of other charismatic marine megafauna

Threats: Sea Turtle Trade

Sea Turtle eggs on sell at aboriginal town Bandarban, 60 kms from the nesting beach, 2001



Turtle on sell at old Dhaka

Hawksbill turtle shell on sell at Cox's Bazar town curio shop, 2000, 2006

Threats: Development Habitat Destruction

Tourism at Nesting beach of St. Martin Island

Nesting beach of Teknaf Peninsula

Threats: Beach Armoring

Impact of Threats

Ecosystem (Beach /In-water)	Species	Life history stage	Threat	Low impact	Medium impact	High impact
In-water	Olive Ridley Green Turtle Hawksbill Leatherback	Neritic juvenile Adult	By-catch in trawl Net Marine Set Bag Net			XXXX
On Nesting Beach	Olive Ridley Green Turtle	Adult	Predation By Dog			XXX
	Olive Ridley Green Turtle	Adult	Lighting		XXX	
	Olive Ridley Green Turtle	Adult	Egg Poaching		XXX	
	Olive Ridley Green Turtle	Adult	Night Activity		XXX	
Foraging Near shore	Green Turtle Hawksbill	Juvenile adult	Habitat destruction			XXXX

Way Forward

- *In water research and monitoring,*
- *By catch monitoring,*
- *TED (Turtle Excluder Device) introduction,*
- *Fisher's training*
- *Underwater survey,*
- *Habitat improvement,*
- *Establishment of Protected areas*

THANK YOU

CONSERVATION OF MARINE TURTLES IN INDIA

Mr. S P Vashishth, IFS
Deputy Inspector General of Forest (Wildlife)
Ministry of Environment, Forests and Climate Change
Government of India

Laws that govern marine turtle conservation

S.No	Legislation	Gap in the law
1.	Wildlife (Protection) Act - 1972	- Do not adequately reconcile conflicts of interest within stakeholders that are affected by its enforcement. -Lack of proper implementation. -Lack of local communities participation in management.
2.	Environmental (Protection) Act – 1986,	
3.	Coastal Regulation Zone notification, 2011	
4.	State Fisheries Policies and Laws	- Enforcement
5.	The Biological Diversity Act, 2002	- Implementation

Protected Marine Turtle Species in India

- **The Wild Life (Protection) Act lists following species in Schedule-I of the Act;**

1. **Green Sea Turtle**
2. **Hawksbill Turtle**
3. **Leathery Turtle**
4. **Logger Head Turtle**
5. **Olive Ridley Turtle**

Okha, Gulf of Kutchh, Saurashtra	Velas, Tabaldeg, Ratnagiri
Morjim, Agonda, Galgibaugh, Keri, Mandrem, Betul, Palolem	Uttar Kanndada Distric, Upupi, Dakshin Kannada,
Kunnur, Kozhikode, Thiruvanantha puram	Nagapattanam, Rameshwaram,
Srikakulam, Vishakhapattan am, Nellore	West Midanapore
Puduchhery	Andaman & Nicobar Islands, Lakshadweep Island

State	Regularly monitored	Sporadically monitored
Gujarat		Districts of Saurashtra, Gulf of Kutchh
Maharashtra	Velas-Ratnagiri, Tambaldeg, Wyangani (2002 onwards) – NGO + Forest Department	Maral, Harihareshwar, Velas-Raigad, Diveagar, Srivardhan, Kelshi, Anjarla, Kolthare, Dabhol, Guhagar
Goa	Morjim, Agonda, Galgibaugh, Agonda (1995 onwards) – Forest Department	Keri, Mandrem, Betul and Palolem
Karnataka		Districts of Uttar Kannada, Udipi and Dakshin Kannada
Kerala	Kolavipalam (1992) – NGO	Districts of Kannur, Kozhikode, Thiruvanthapuram

	Regular	Sporadically
West Bengal		District of West Midnapore
Orissa	Rusikulya , Gahirmatha, Devi (1990's onwards) – Forest Department	
Andhra Pradesh	Sacremento Island, Hope Island and Uppada (2011 onwards)	Districts of Srikakulam, Vishakhapatnam, Nellore
Tamil Nadu	Chennai (1987 onwards)	District of Nagapattinam, Rameshwaram
Andaman & Nicobar Islands	Andaman and Nicobar Islands (1978)– NGO	

In-water research or fisheries-related work being conducted

In water research

Andaman & Nicobar

Beach front research

Gujarat – Saurashtra coast
Maharashtra – Ratnagiri and Sindhudurg coast
Andhra Pradesh – Kakinada coast
Orissa – Rushikulya
West Bengal – Sundarbans and West Midnapore

Duration of sea turtle work and Projects working on sea turtles

- Protection and conservation of nesting sites in all coastal states:

Gujarat, Maharashtra, Goa, Karnataka, Kerala, Lakshadweep, Tamil Nadu, Andhra Pradesh, Orissa, West Bengal & Andaman & Nicobar

- Present projects on turtles include:

1. Leatherback turtle project
2. Rushikulya mass nesting turtle project.
3. GoI-GEF-UNDP Project in Maharashtra and Andhra Pradesh

Ecosystem (Beach /In-water)	Species	Life history stage	Threat	Low impact	Medium impact	High impact
In-water	Olive Ridley	Adults	Bycatch in trawl fishery		X	
In-water	All the species	Adult	Ingestion of plastic and other anthropogenic compounds			X
Beach	Olive Ridley	Nesting sites	Beach erosion			X
Beach	All the species	Hatchling as well as adults	Unplanned construction of ports, industries along the coast		X	
Beach	All species	Eggs and Hatchlings	Egg depredation by feral animals,			X
Beach	All species	Eggs and hatchlings	Plantation of *Casuarina sp.* And other exotic trees		X	
Beach	All species	Hatchlings, and Adults	Tourism (it can also be turned into an opportunity)	X		
Beach	All species	Hatchlings	Beach illumination			X

Current Actions / Involvement of local communities

- Awareness campaigns for local fishers communities.
- Involving local communities for beach monitoring and nest monitoring
- Patrolling of coastal areas by security forces to prevent illegal wildlife trade
- Motivating coastal hotels and residents to dim lighting during breeding seasons.
- Dialogues with Fisheries Department for using biodiversity friendly fisheries gear
- Under the GoI-GEF-UNDP Project on Coastal and Marine Biodiversity Conservation- Marine Turtle Conservation.
- Encouraging fisher folks to use Turtle Excluder Devices
- Godavari Mouth region has been selected for one of the pilot projects on Marine Turtle Conservation of IOSEA.

Future actions

1. **National Level Research on Marine Turtle Species**
2. **Mainstreaming Coastal and Marine Biodiversity conservation into various sectors**
3. **Coastal and Marine Biodiversity Conservation to be a part of new National Wildlife Action Plan**
4. **Marine areas are envisioned to be brought under Wildlife(Protection) Act, 1972.**
5. **Strengthening regional cooperation for effective enforcement of international biodiversity conservation commitments.**
6. **Strengthening Wildlife Crime Control Bureau and other national enforcement agencies.**

Country Presentation: Maldives

Subregional Workshop to Establish a Marine Turtle Task Force in the Maldives

Malé, The Republic of Maldives

2015

1. Background

Regular monitoring

Sporadic monitoring

Marine Turtle Legislation

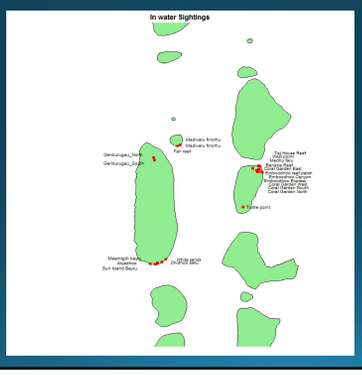
Fisheries Act, Ministry of Fisheries and Agriculture

- Moratorium from 2006-2016
- Ban on egg harvesting from 14 nesting beaches from 2006-2016

Gaps in legislation

- Lack of country-wide harvesting of eggs
- Sub-optional enforcement

In-water research



Sea turtle work

- Preliminary assessment; J. Frazier & S. Salas, July 1984
- **"Marine Turtles in the Maldive Archipelago"**
- 1995 moratorium
- **The Maldivian Sea Turtle Conservation Programme**
  - Turtle rehabilitation centres at Fourseasons Resort Kuda Huraa, Fourseasons Resort Landaa Giraavaru
  - Turtle nest protection and rearing
  - Turtle photo-identification and monitoring program
  - Rehabilitation and satellite-tracking of olive ridley turtles
- Banyan Tree Maldives
  - Nest relocation program , satellite tracking

Sea turtle work cont'd

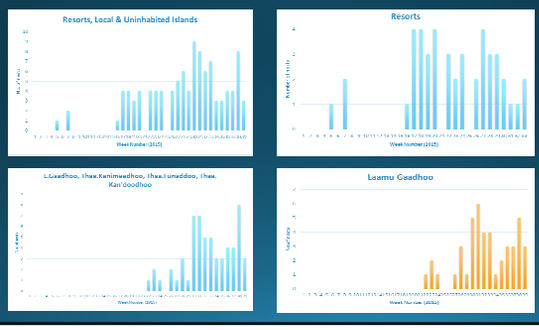
- **Olive Ridley Project**
  - Turtle entanglements in ghost nets in Indian Ocean
  - Sea turtle rescue centre at Coco Palm Dhuni Kolhu
  - Satellite tracking and DNA analysis

Sea turtle work cont'd

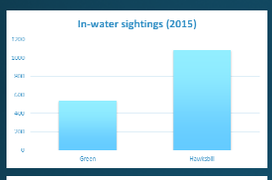
- Turtlewatch Maldives
  - January 2015
  - IUCN and Marine Research Centre
  - Project REGENERATE in Maldives
  - Data collection by tourist resorts
  - National Sea Turtle Nesting Survey Program
  - June 2015
  - Selected, protected nesting islands
  - Laamu Gaadhoo, Thaa Kanimeedhoo, Thaa Funnaddoo, Thaa Kan'doodhoo

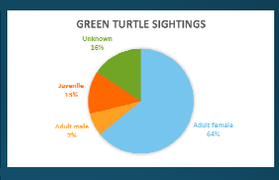
2. Nesting beach work

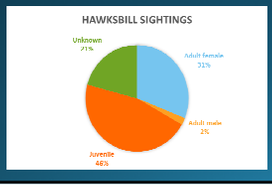
- Tourist resorts and local surveyors



In-water and fisheries related research







-In-water observations through citizen-science programs

-Tourist resorts

Fisheries related work

- **Regulation on Fishing and Export of Bigeye and Yellow fin tuna**
  - De-hookers
  - Encourages circle hooks
  - Marking of fishing gears

Threats

Ecosystem (Beach / In-water)	Species	Life history stage	Threat	Low impact	Medium impact	High impact
Beach	*Chelonia mydas*	Adult female	Poaching			X
In-water (lagoon)	*Chelonia mydas*	Adult	Poaching		X	
Beach	*Chelonia mydas, Eretmochelys imbricata*	Eggs	Poaching			X
In-water	*Lepdochelys olivacea*	Juvenile	Entanglement in ghost nets			X
Beach	*Chelonia mydas, Eretmochelys imbricata*	Adult	Coastal development		X	
In-water	Unknown	Unknown	Fisheries	X		

Current action / Involvement of local communities

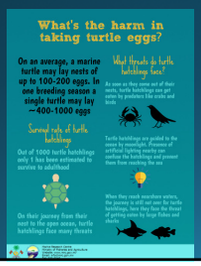
- 2 Citizen-science programs
- Turtlewatch Maldives
- National Marine Turtle Nesting Survey Program

NGO Involvement

- Involvement with NGOs
  - Collaboration with Olive Ridley Project, 2014-2015
    "Raising Awareness on Entanglement of Olive ridley turtles in Ghost nets in the Central Indian Ocean
- IOTC- 10th Session on Working Party on Ecosystem and Bycatch, Japan

Awareness Raising and monitoring programs

- Lack of civil society interest
- Strengthening outreach programs
- NGO involvement- Save the Beach Maldives



RFMOs

- Indian Ocean Tuna Commission
  - Working Party on Ecosystem and Bycatch
    - Annual bycatch assessment report
    - Entanglement of olive ridley turtles in ghost nets- Olive Ridley Project

Future actions

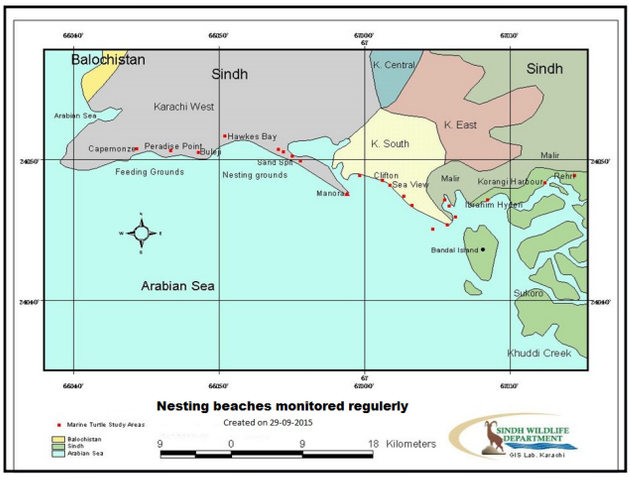
- In-water work: Engagement of tourist resorts in data collection
- Nesting:
  - Engagement of resorts
  - Locals in monitoring protected nesting islands
- Renewal of moratorium
- Strengthening enforcement

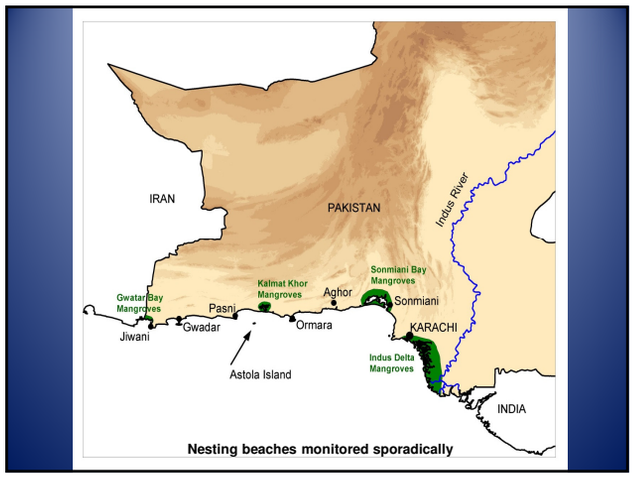
بسم الله الرحمن الرحيم

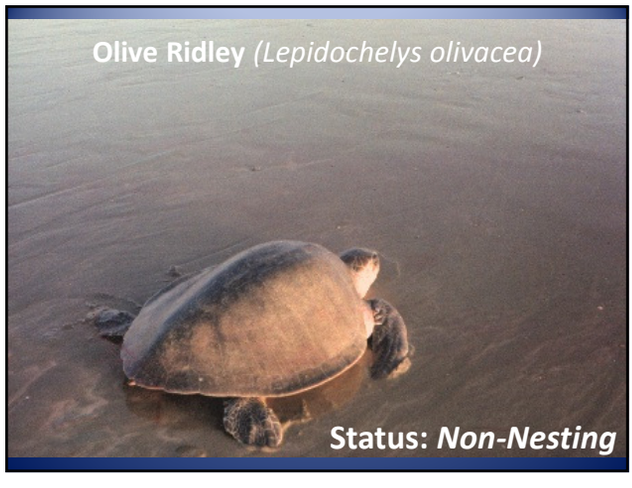
CONSERVATION, PROTECTION, RESEARCH & MANAGEMENT OF MARINE TURTLES IN PAKISTAN

Sub-regional Workshop
To Establish a Northern Indian Ocean Marine Turtle Taskforce , 11 - 12 October 2015, Malé – Maldives

Adnan Hamid Khan
Game Officer / In-charge Marine Turtle Conservation Unit,
Provincial Focal Point of IOSEA Marine Turtle MoU
Government of Sindh, Karachi - Pakistan







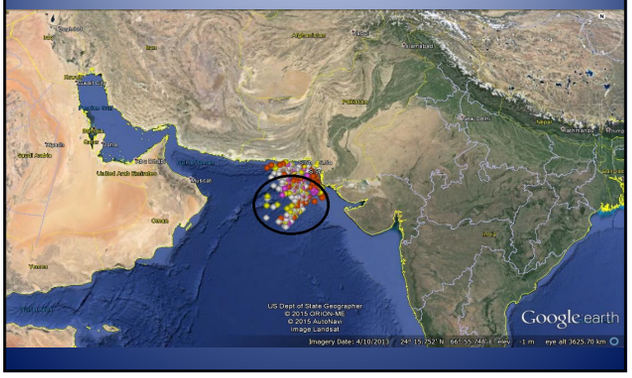
LAWS FOR MARINE TURTLES CONSERVATION

- ❖Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- ❖Convention on Migratory Species (CMS).
- ❖Convention of Bio-diversity (CBD).
- ❖United Nations Convention on the Law of the Sea (UNCLOS).
- ❖Pakistan Trade Control of Wild Fauna and Flora Act 2012.
- ❖The Pakistan Fish Inspection and Quality Control Act, 1997.
- ❖Sindh Wildlife Protection Ordinance 1972, Amended 2002.
- ❖The Balochistan (Wildlife Protection, Preservation, Conservation And Management) Act 2014.

GAPS IN LAW

- ❖Implementation
- ❖Awareness among the implementers

IN WATER RESEARCH



IN WATER RESEARCH

During the study period, 369 marine turtles (306 *Olive Ridley*, 60 *Green turtle* and 3 Hawksbill turtle) were caught as by catch during the observed 15 months.

IN WATER RESEARCH (Cont.)

Dr. A. A. Qureshi

The originator of Turtle Conservation in Pakistan


Good-bye, turtles

By Dr A. A. Quraishy

DURATION OF TURTLE CONSERVATION

Turtle Conservation work was started in late 1979 at Hawkesbay and Sandspit, Karachi and is continued since then on the whole coastal area of Pakistan including Sindh and Balochistan Provinces.

PROJECTS WORKING ON SEA TURTLES

- Sindh Wildlife Department is working on Marine Turtle Conservation Project at Hawkesbay and Sandspit – Karachi
- WWF-P is working on fisheries related turtle conservation work along Balochistan coast
- IUCN-P is working on TED implementation and protection of by-catch along the whole coast

Beach activities

- Declared all marine turtle species protected (capturing, killing, export is prohibited)
- Marine Turtle Research Laboratory established at Hawkes Bay.
- Eggs protected 2.42 million
- Hatchlings released 0.72 million
- Turtles tagged 8221
- Turtles Recovered 650
- Tagged turtles reported 3 (India, Africa and Iran)
- Satellite transmitters 12 *C. mydas*
- Research
- Beach Cleaning Programs
- Guided tours for turtle watching.
- Publicity material for education and awareness.


SINDH WILDLIFE DEPARTMENT, GOVERNMENT OF SINDH
MARINE TURTLE LABORATORY
S - 88, HAWKESBAY
03/21/2015

Guided tours for locals & foreigners

A satellite transmitter on Green Turtle

Beach Cleaning Activity *Photo credit – IUCN Pakistan*

Some International experts visiting the Turtle Conservation Area – Karachi

A stall of marine turtle educational material set by volunteers

In-water activities

- Baseline study during 2011-12, to find out the status of Marine Turtles along Sindh coast by Sindh Wildlife Department
- Strategic Plan for Conservation of Marine Turtles in Pakistan prepared by IUCN Pakistan
- Baseline study on sea turtle mortality in fishing operations conducted by IUCN in 2015
- A manual on TED installation prepared in local languages by IUCN Pakistan in 2014

Installation of TEDs in trawling nets by IUCN Pakistan under a USAID funded Project *Photo credit – IUCN Pakistan*

THREATS IMPACTING NESTS, TURTLES, AND THEIR HABITATS

Ecosystem (Beach /In-water)	Species	Life history stage	Threat	Low impact	Medium impact	High impact
Beach	*C. mydas*	Eggs	Land predators, Sand mining			X
Beach	*C. mydas*	Juveniles	Land & aquatic Predators Pollution, fishing,		X	
Beach	*C. mydas*	Nesting females	Habitat degradation, Pollution, Beach picnickers, coastal fishing		X	

THREATS IMPACTING NESTS, TURTLES, AND THEIR HABITATS

Ecosystem (Beach /In-water)	Species	Life history stage	Threat	Low impact	Medium impact	High impact
Submerged coastal habitat	*C. mydas, L. Olivacea*	Adult and sub adult	Plastic pollution		X	
Submerged coastal habitat	*C. mydas, L. Olivacea*	Adult and sub-adult	Feeding ground degradation	X		

THREATS IMPACTING NESTS, TURTLES, AND THEIR HABITATS

Ecosystem (Beach /In-water)	Species	Life history stage	Threat	Low impact	Medium impact	High impact
Oceanic	*C. mydas, L. olivacea*	Adult and sub-adult	Bycatch in various fishing gears			X
Oceanic	*C. mydas, L. olivacea*	Adult and sub-adult	Deliberate killing by fishers in seine nets (conflict in fishing operation)	X (insignificant)		

Destruction of nesting habitat, Sandspit - Karachi

Entanglement in Gillnets *Photo credit – WWF Pakistan*

Olive Ridley (L. olivacea) hauled in the net.

Photo credit – WWF Pakistan

A fishermen is releasing the turtle

Photo credit – WWF Pakistan

Current actions / involvement of local communities

- Training of local fishermen to implement TED
- Education and awareness programes through print and electronic media at local, national and regional level
- Review of existing laws at provincial and national level
- Involvement of local community in conservation activities
- Exchange of information with organizations involved in turtle research and conservation

Training of local fishermen for TED Monitoring

Photo credit – IUCN Pakistan

Issues not covered above

Tasman Spirit Oil Spill - 2003

MANORA CHANNEL, KARACHI

- Greek ship "Tasman Sprit" grounded off Karachi on July 27th 2003
- It was carrying 67000 tons of crude oil
- 14 Km area along Clifton beach which is about 10 Km from turtle beach (Sandspit) was effected
- Study on Natural Resource Damage Assessment is being carried out to analyze the impact of TSOS
- Turtle eggs, tissues, hatchlings and blood samples were collected during and after the spill for Hydrocarbon analysis and other related pollutants

SINDH WILDLIFE DEPARTMENT

YoT THEME

COOPERATING TO CONSERVE
MARINE TURTLES:
OUR OCEAN'S AMBASSADORS

ACKNOWLEDGMENT

- IOSEA Secretariat
- Government of Maldives
- Ministry of Climate Change
- Sindh Wildlife Department
- Baluchistan Forest & Wildlife Department
- Marine Fisheries Department
- National Institute of Oceanography
- Sindh Fisheries Department
- University of Karachi
- WWF – Pakistan
- IUCN - Pakistan

Future actions required

- Declaration of Turtle Protected Areas
- Strict implementation of existing legislation
- Studies to check the impact of climate change / global warming on sea turtles
- Research on modern techniques required for field staff in order to observe the genetic diversity in sea turtle population
- Enhance education and awareness programme

Future actions required

- Strict scientific and administrative measures should be adopted for finding out the actual causes of Olive Ridley's non-nesting on the beaches of Pakistan
- Exchange of information is required regarding eco-regional trans-boundary migration of marine turtle species.
- IOSEA Secretariat is requested to extend financial and technical assistance for marine turtle conservation in Pakistan

There could be no great once if there were no little ones

Thanks

Turtle Conservation in Sri Lanka

H.D.Ratnayake
Director General
Department of Wildlife Conservation (DWC)
Sri Lanka.

MARINE TURTLES OF SRI LANKA

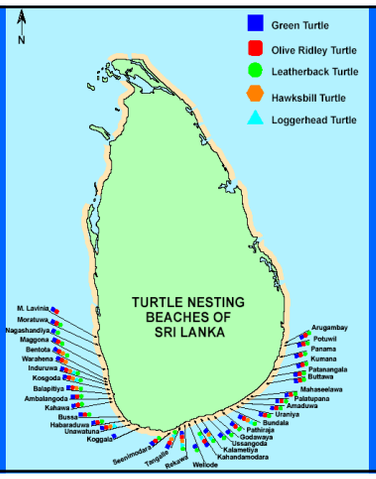
Green turtle

Olive ridley turtle

Hawksbill turtle

Loggerhead turtle

Leatherback turtle



Legislation

- Sea turtles are protected in Sri Lanka under government legislation since 1972 by Fauna and Flora Protection Ordinance (amendments1993 and 2009) .

Punishments

- A fine US $ 750 or
- Two year impressments or
- Both

Conservation – past & present

Two ways - *in-situ* and *ex-situ*.

In-situ Conservation

In 1995 DWC initiated an *in-situ* nest protection programme in collaboration with the Heritage Foundation along 4 km stretch of beach in Bundala National Park

In 1996 Turtle Conservation Project (TCP) initiated its pioneering community-based *in-situ* sea turtle nest protection programme at Rekawa.

A similar programme at Kosgoda in 2003

In-situ Marine turtle nest protection programme

In-situ conservation

- In-situ conservation is operated by DWC.
- Turtle conservation programme in Bundala National Park, DWC-TCP collaborative project in Rekawa, and TCP's turtle conservation programme in Kosgoda are playing the significant role in turtle conservation in Sri Lanka.

Ex-situ Conservation

- **The first *ex-situ* sea turtle conservation programme or the turtle hatchery was initiated in 1956 at Yala National Park by the Department of Wildlife Conservation**
- **Then in 1969 the first private hatchery was initiated by Wildlife and Nature Protection Society**

  The only purpose of these hatcheries was the conservation of the sea turtles
- **However, commercial hatcheries began to initiate in 1970's.**
- **At present over ten turtle hatcheries are well established along the southern and southwestern coast of Sri Lanka.**

Wildlife Protected Areas
with Marine Turtle Habitats

- Bundala National Park (nesting and feeding)
- Yala National Park (nesting and feeding)
- Wilpattu National Park (nesting and feeding)
- Hikkaduwa National Park (nesting and feeding)
- Ussangoda-Godawaya-Kalametiya Sanctuary (nesting and feeding)
- Rekawa Sanctuary (nesting and feeding)
- Bar Reef Sanctuary (feeding)
- Kumana National Park (nesting and feeding)
- Chundikulam Sanctuary (nesting and feeding)

Sanctuaries

The first two sea turtle sanctuaries in Sri Lanka were declared by Department of Wildlife Conservation in 2006 at Rekawa (4.5 km stretch) and at Godawaya (3.8 km stretch).

The area bounded 500 meters towards the sea and 100 meters towards the land from the high tide level in both sites.

Declaration of Sanctuaries

- The Department of Wildlife Conservation has declared Rekawa and Godawaya Sanctuaries on 25th of May 2006 by a special gazette with the assistance of TCP, CCD, and IUCN.
- Six Green turtles with satellite transmitters were released on the same day.

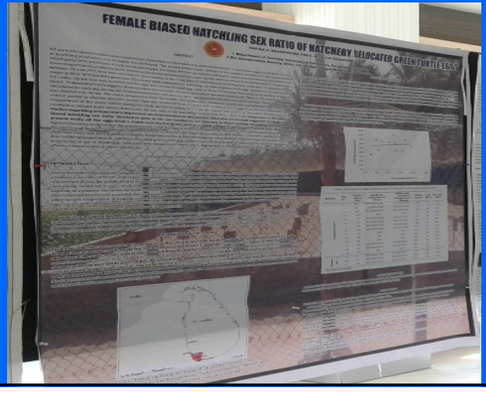
Projects working on sea turtles in Sri Lanka

1. *Turtle Conservation Project (TCP)*
2. *Bio Conservation Society (BCS)*
3. *Sea Turtle hatcheries*
4. *Department of Zoology, University of Peradeniya*

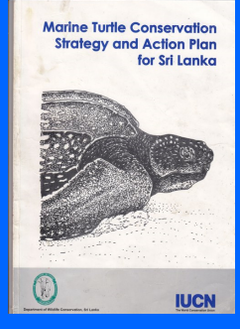
The Bio Conservation Society (BCS) is a new NGO working on sea turtle and coastal biodiversity Conservation in Sri Lanka. The BCS has conducted below projects on sea turtle conservation since 2013.

- Awareness programmes on sea turtles and coastal biodiversity conservation for the coastal communities in southern and eastern coast of Sri Lanka
- Awareness programme for the fishermen in the Kalpitiya peninsular, Sri Lanka on sea turtle conservation and by-catch reduction
- Fishermen attitudinal survey on sea turtle conservation and by-catch reduction at Northwestern coast

Department of Zoology, university of Peradeniya conducting research on sex determination and nest temperature variation in sea turtle hatcheries (ex-situ condition).



Policies on Marine Turtles



- Global Action Plan
- Regional Action Plan for the Northern Indian Ocean (NIO)
- Sri Lanka National Marine Turtle Action Plan
- IOSEA-Sri Lanka MoU

Research & Surveys

- DWC, NARA, TCP and IUCN have conducted various surveys on nesting sites, hatcheries, tortoiseshell trade, Turtle by-catch etc.

Research & surveys con...

- Satellite tracking programmes were conducted by DWC and TC P in Rekawa, Bundala and Kosgoda in collaboration with Marine Conservation Society and Wildlife Institute of India.

Research & Surveys con...

- NARA and University of Peradeniya have conducted genetic studies
- TCP has conducted research such as turtle tagging, measuring and weighing in Rekawa.

Capacity Development of DWC Officers

Training on Sea Turtle Biology, Research, Conservation & Management for the Officials of the Directorate of Wildlife Conservation (DWC), Sri Lanka

Venue: Auditorium, Bundala National Park
Dates: 11th and 12th February 2010

Organized by Wildlife Institute of India, DWC Sri Lanka & Turtle Conservation Project (TCP), Sri Lanka

Wildlife Institute of India

Community Participation

- Community members are actively involved in turtle nest protection in Rekawa, Kosgoda and Bundala.

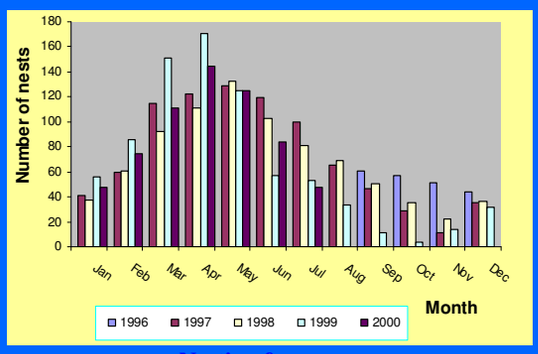
Ecosystem (Beach /In-water)	Species	Life history stage	Threat	Low impact	Medium impact	High impact
Beach	All five	Adult	Egg poaching			X
In water	All five species	Both adult & juveniles	By-catch			x
Beach	All five	adult	tourism		x	

The number of nests laid by the five species of turtles from September 1996 to July 2000 at Rekawa

Species	Number	Percentage
Green turtle	3218	96.70
Olive ridley	42	1.26
Leatherback	55	1.65
Hawksbill	6	0.18
Loggerhead	7	0.21
Total	3328	100

- 3328 nests were recorded from five species
- Average 4 nests per season (green turtles)

- Maximum 172 and minimum 4 nests per month were observed
- Average 70 nests per month



Nesting frequency

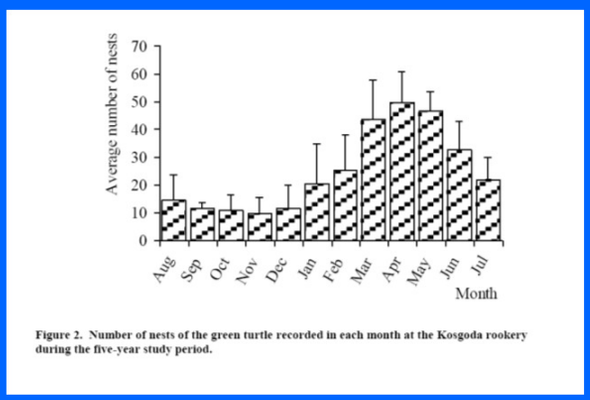


Figure 2. Number of nests of the green turtle recorded in each month at the Kosgoda rookery during the five-year study period.

- Species data

Turtle Night Watch Tourism

- Turtle watches take place in Rekawa and Kosgoda and locals have been trained as tourist guides.
- TCP has won several global awards for their turtle watch programme

Current activities

Regulating the present turtle hatcheries manage by the private owners

Conduct awareness programme for the school kids and coastal community

Nesting beach survey

By-catch survey

Upgrading the legal status of current turtle nesting & foraging habitats (sea grass beds, coral reefs)

Hatchery survey

Expansion of turtle conservation activities in new areas

Future Activities

- Continuation of current activities
- In-water surveys on turtle behaviors
- Monitoring of activities mentioned in National Marine Turtle Action Plan
- Increase public awareness
- Involve more communities in conservation
- Regulate turtle hatcheries
- Develop integrated management plan with other relevant agencies
- Establishment of new unit for marine conservation in the Department of Wildlife Conservation
- Expansion of turtle related tourism activities and benefit sharing with local communities

Thank You

Department of Wildlife Conservation - Sri Lanka.

www.dwc.gov.lk

Statement of the Northern Indian Ocean Marine Turtle Meeting

We, delegates from Bangladesh, India, the Maldives, Pakistan and Sri Lanka and representatives of non-governmental and scientific organisations met from 11-12 October 2015 in Malé to discuss measures for the comprehensive protection, conservation, replenishment and recovery of marine turtles and their habitats in the Northern Indian Ocean region.

To this end, we –

1. *Acknowledge* that the five species of marine turtles occurring in the Northern Indian Ocean, namely, Green, Hawksbill, Leatherback, Loggerhead and Olive Ridley turtle are listed on the IUCN Red List as critically endangered, endangered or vulnerable;

2. *Recognise* the continuing human-induced pressures on all species and their habitats and the urgency to counter these pressures;

3. *Reconfirm* our commitment to implement the provisions of the Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia, and its Conservation and Management Plan, in particular to

    - enact and enforce legislation that strictly prohibits the killing, poaching, trafficking and catching of marine turtles, as well as the collection and consumption of their derivatives, in particular their eggs;

4. *Establish* a Northern Indian Ocean Marine Turtle Task Force (NIOMTTF) to strengthen our regional cooperation in addressing:

    - Fisheries bycatch
    - Ghost gear
    - Standardized monitoring protocols
    - Collaborative research
    - Sustainable eco-tourism
    - Head-starting practices
    - Coastal development
    - Socio-economic and cultural issues
    - Impact of climate change
    - Marine pollution
    - Citizen science
    - Sustainable use
    - Illegal, unregulated and unreported (IUU) fishing

5. *Stress* the important role and unique opportunity of the NIOMTTF in:

    - sharing scientific data and information among task force members on pressures and threats to marine turtles and their habitats as well as conservation successes;
    - sharing norms, standards and guidelines to address pressures and threats to marine turtles and their habitats;

- exchanging best practices for the conservation and management of marine turtles and their habitats;
- jointly embarking on regional awareness-raising and education campaigns related to the protection of marine turtles and their habitats;
- cooperating closely with governmental and non-governmental organisations, academic institutions as well as civil society in conserving, protecting, replenishing and restoring marine turtles and their habitats;

6. *Commit* to implement the Joint Work Programme for the NIOMTTF and to review its implementation by the task force members on an annual basis at meetings or through the electronic reporting to the IOSEA Secretariat.

We *extend* our sincere thanks to the Government of the Maldives for organising and hosting and to the donors for facilitating this meeting.

List of Participants
Subregional Workshop to establish a Northern Indian Ocean Marine Turtle Taskforce, Male, Maldives, 11-12 October 2015

Government representatives	
Dr. Md. Mohiuddin (Mr.) Deputy Secretary Ministry of Environment and Forests Government of Bangladesh Building # 6 Level # 13 Bangladesh Secretariat Dhaka Bangladesh Email: dr.mohiuddin2011@gmail.com	Satya Prakash Vashishth (Mr.) Deputy Inspector General of Forests (Wildlife) Ministry of Environment, Forest, and Climate Change 6 Dharam Colony Nagloi India Email: vashsatya@gmail.com
Khadeeja Ali (Ms.) Senior Research Officer Marine Research Centre H.Whitewaves, Moonlight Hingun-20025, Malé Maldives Email: kali@mrc.gov.mv IOSEA MoU Focal Point	Dr. M. Shiham Adam (Mr.) Director General Marine Research Centre H.Whitewaves, Moonlight Hingun-2002 Malé Maldives Email: msadam@mrc.gov.mv
Adnan Hamid Khan (Mr.) Game Officer/In-charge Marine Turtle Conservation Unit Marine Turtle Laboratory Provincial Government Sindh 88/S, Hawkesbay Karachi Pakistan Email: khanadnan_khi@hotmail.com	Hitibandarale Dayawan Ratnayake (Mr.) Director General, Department of Wildlife Conservation, Government of Sri Lanka, No. 5811/A Jayanthipura Road Battaramulla Western Sri Lanka Email: dayawanratnayake@yahoo.com IOSEA MoU Focal Point
NGO Representatives	
Hassan Ahmed (Mr.) Chief Executive Save the Beach Maldives V.Sailfish, Boakeyo Goalhi, K.Villingili, Maldives Email: Savethebeach.villingili@gmail.com	Dr. Lalith Ekanayake (Mr.) Executive Secretary Turtle Conservation Project (TCP) 389 Godagama Kosgoda Sri Lanka Email: lalitheml@yahoo.com
Mohammad Zahirul Islam (Mr.)	Bijaya Kumar Kabi (Mr.)

Executive Director Marine Life Alliance (MLA) Judge Building, Sayeman Road Baharchara Cox's Bazar 4700 Bangladesh Email: marinelife.al@gmail.com, marinelife_al@yahoo.com	Director Action for Protection of Wild Animals (APOWA), Kendrapara, Odisha India Email: apowa1999@yahoo.co.in
Dr. Annie Kurian (Ms.) Co-Founder and Programme Director Sea Turtles, Coastal- Marine Resources and Livelihoods Terra Marine Research Institute #1, R.B.I Colony, H.A Farm Post Bangalore, 24, Karnataka India Email: anniekurian@msn.com, terramarineinstitute@gmail.com	M Muralidharan (Mr.) Programme Officer Dakshin Foundation A-001, Samriddhi Gardenia Apartments 88/3, Byatarayanapura, Near Sahakaranagar, 'A' Block Bangalore-560 092 India Email: muralim86@gmail.com
Rebecca Regnery (Ms.) Deputy Director Wildlife Humane Society International (HSI) 2100 L Street, NW Washington, DC 20037 USA Email: rregnery@hsi.org	Umair Shahid (Mr.) North Indian Ocean Coordinator, Smart Fishing Initiative, WWF-Pakistan 46/K Main PECHS Block-6 Karachi Pakistan Email: ushahid@wwf.org.pk
Martin Stelfox (Mr.) Founde/Director Olive Ridley Project 11 Dane Close Bramhall, Stockport Cheshire, SK7 3LF UK Email: oliveridleyproject@yahoo.com	
Experts, Resource persons and IOSEA Secretariat	
Clara Nobbe (Ms.) IOSEA Coordinator IOSEA Marine Turtle MoU Secretariat c/o UNEP/CMS Secretariat Platz der Vereinten Nationen 1 53113 Bonn Germany Email: Clara.nobbe@cms.int	Dr. Manjula Tiwari (Ms.) Research Biologist NOAA Fisheries Southwest Fisheries Science Center Marine Turtle Ecology and Assessment Program, 901 La Jolla Shores Drive LA JOLLA, CA 92037 USA Email: Manjula.Tiwari@noaa.gov
Dr. Andrea Phillott (Ms.) Professor Faculty of Science Asian University for Women 20/G M.M. Ali Road	Lindsey West (Ms.) Vice-chair of WIO-MTTF Director Sea Sense PO BOX 105044

Chittagong 4000 Bangladesh Email: andrea.phillott@auw.edu.bd	Dar es Salaam United Republic of Tanzania Email: lindsey@seasense.org
Observers	
Dr. Ameer Abdullah (Mr.) Chief of Party/Chief Technical Officer, Maldives-USAID-IUCN-Project REGENERATE, Malé Maldives Email: ameer.abdulla@iucn.org	Thomas La Berre (Mr.) Seamarc Pvt. Ltd. Malé Maldives Email: thomas@seamarc.com
Jamie Fisher (Ms.) Turtle Biologist Four Seasons Kuda Huraa Kaafu Atoll Maldives Email: turtlebiologist.MAL@fourseasons.com	Mohamed Niyaz (Mr.) Director of Ocean Paradise Maldives P.O. Box 2135 Malé Maldives Email: mohan.niyaz@gmail.com

TERMS OF REFERENCE OF THE NORTHERN INDIAN OCEAN - MARINE TURTLE TASK FORCE

Membership:

Current Signatory States to the IOSEA Marine Turtle Memorandum of Understanding (MoU) from the Northern Indian Ocean region, consisting of Bangladesh, India, Maldives, Pakistan and Sri Lanka, selected experts from nongovernmental organizations and scientific institutions from these countries, as well as observers from other relevant organizations contributing to or affecting marine turtle conservation, as required.

Objectives:

The objective of the Task Force is to serve explicitly to facilitate implementation of the IOSEA Marine Turtle MoU (including its Conservation and Management Plan) in the Northern Indian Ocean sub-region and, in particular, the regional work programme decided by the Task Force.

The objective of the IOSEA MoU is to protect, conserve, replenish and recover marine turtles and their habitats, based on the best scientific evidence, taking into account the environmental, socio-economic and cultural characteristics of the signatory States.

The NIO MTTF is therefore a technical committee spanning both scientific and management expertise.

Nomination and Appointment

The NIO-IOSEA Marine Turtle MoU Task Force shall be comprised of:

- One country representative from each of the five signatory States of the NIO region, who can be the IOSEA Focal Point or an alternate, depending on the expertise required under the work programme of the Task Force;
- One expert from a selected nongovernmental organization or scientific institution, appointed by the IOSEA signatory State;
- Observers from other relevant organizations and institutions contributing to or affecting marine turtle conservation, as proposed by the Chair of the Task Force in consultation with the Task Force members or the IOSEA Secretariat.

The Task Force members should serve for three years and are eligible for re-nomination and reappointment pending Government approval.

The Task Force shall elect its own Chair and Vice-Chair from among its members on a three-year rotational basis. The Chair and Vice-chair are eligible for re-election for a maximum of two consecutive terms. The Chair and Vice-Chair shall be the principal point of contact between the Task Force, IOSEA Secretariat and other Stakeholders.

Rules of Procedure

The Task Force shall decide its own regional work programme in line with the priorities identified by the latest signatory States Meeting with the support of the IOSEA Advisory Committee, if necessary.

The Task Force shall organise its own business and strive to reach all decisions by consensus.

A quorum shall be complete when at least one member from each country is present in a meeting.

The members of the Task Force shall communicate the implementation of the regional work programme to the Chair of the Task Force, who shall provide annual updates on the activities and implementation of the regional work programme of the Task Force to the IOSEA Secretariat as well as to each of the Meetings of signatory States.

Meetings and communications

To minimise costs, the Task Force should conduct as much of its activity as possible through electronic communication on a regular basis.

The Task Force should meet annually.

The Task Force should strive to meet in conjunction with the Meeting of IOSEA Signatory States or in conjunction with meetings of other international and regional bodies to review progress, confirm funding and decide on a regional work programme.

The Chair and/or Vice Chair should endeavour to participate in the relevant meetings of the IOSEA Signatory States and may also participate on behalf of the Task Force in the meetings of related regional and international instruments and networks. Wherever possible, the other members of the Task Force should also participate in the meetings of the IOSEA Signatory States.

Mandate

<u>Strengthen regional cooperation and coordination</u>

- Serve as the coordinating and advisory body to Signatories from the NIO sub-region on marine turtle conservation.
- Develop linkages and dialogue between the conservation sector and other sectors and industries, such as development, tourism, planning, economy, fisheries, protected areas etc., and encourage National Committees to make these linkages.
- Advocate and direct collaborative efforts for marine turtle conservation among stakeholders, including governments, management authorities, the private sector, coastal communities and non-governmental organisations.
- Ensure good relations are maintained among Governments, NGOs, regional, national and local groups and individuals interested in marine turtle conservation, by conveying information to support ideas, goals, achievements and lessons learned.

<u>Review and Reporting</u>

- Develop and standardize protocols for data collection, management and data sharing for research and monitoring programmes.
- Develop methods to regionally review the collective implementation of national commitments to the IOSEA Marine Turtle MoU, making use of the standardised IOSEA National Report template.

- Review and recommend best practice principles for activities requiring the interaction with turtles such as monitoring, education facilities, such as rehabilitation centres and hatcheries, filming and ecotourism ventures.
- Promote both biophysical and socio-economic monitoring and more effective coordination with regional and international monitoring programmes.

Planning, Conservation and Management

- Collaborate with National Committees, NGO's, regional, national and local groups and individuals interested in marine turtle conservation to recommend coherent sub-regional priorities for marine turtle conservation, based on the IOSEA CMP**.**
- Encourage signatories and non-signatories to the MoU to develop national marine turtle conservation action plans or strategies within the context of the regional framework of the IOSEA CMP.
- Work with National Committees to ensure national planning is compatible with marine turtle conservation planning across the region.
- Obtain government endorsement for a regional strategy.
- Collaborate with National Committees to prioritise future work for the implementation of the IOSEA MoU with individual respect given to each countries situation.
- Solicit funds for activities to be undertaken by the NIO-IOSEA Marine Turtle MoU Task Force and assist in fundraising for other marine turtle conservation activities/projects that will benefit the region and individual countries.
- Assist National Committees to solicit funding for national conservation activities.

Capacity Building

- Support the development of local capacity in research, management and governance by identifying capacity needs, implementing exchange programmes or (where possible) seeking resources to conduct research and monitoring programmes.
- Facilitate the creation or strengthening of National Committees in all countries.
- Encourage National Governments to recognise local issues and establish national legislation or enforcement to further protect marine turtles.

Facilitate Communication

- Provide and facilitate access to technical advice. Act as a reference body and provide advice on proposals for marine turtle conservation projects in the region. Encourage proposals to have a regional perspective and provide linkages between local, national and regional networks where possible.
- Facilitate linkages and collaboration with regional organisations such as IOTC, BOBP-IGO, SACEP, BOBLME Project, SRCWPP, IUCN, WWF, relevant SAARC Centres, etc.
- Facilitate communication and the dissemination of information for the purposes of scientific and public awareness.
- Facilitate and support communication at the national level and serve as a platform to coordinate local initiatives (where required in the absence of national committees).
- Encourage active participation in sub-/regional meetings by institutions and relevant parties in order to raise awareness about priority and emerging issues concerning marine turtles.

Considering the current level of implementation, it is clear that the sub-region has very limited resources for implementation. It is therefore expected that the responsibilities and activities should not be reliant on many additional resources from governments. All of the NIO-MTTF activities will take place in consultation with the IOSEA Secretariat, and will seek additional resources, opportunities and frameworks.