



# 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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## REPORT OF THE SIXTH MEETING OF THE WESTERN INDIAN OCEAN MARINE TURTLE TASK FORCE (WIOMTTF)

Hosted by IOSEA at the Seventh Meeting of the Signatory States, Bonn, Germany

7th September 2014

### **Attendees**

Comores – Mr Anfani Msoili

Kenya – Mr Mohamed Omar

Madagascar – Ms Félicitée Rejo

Mauritius - Mr Devanand Norungee

Mozambique – Mr Anselmo Gaspar

Seychelles – Dr Jeanne Mortimer

South Africa – Dr Ronel Nel

Tanzania – Milali Machumu, Ms Lindsey West (WIOMTTF Vice Chair)

United Kingdom – Dr Peter Richardson (WIOMTTF Chair)

### **Apologies**

France - Mr Stephane Ciccione

### **Agenda**

- Introductions, meeting aims & objectives and adoption of agenda
- Country updates from members: including recent significant marine turtle-associated developments/new activities within member states.
- MTTF WIO socio-economic/cultural research workshops strategic planning: where we are now and the way ahead; identification of project champions; geographic sites; workshop content; outcomes and evaluation measures; agree implementation plan, including timetable and priority tasks.
- Fish Aggregation Devices (FADs) and their impacts on turtles – what do we know and what can we do? (Jeanne Mortimer)
- Summary of actions
- Close

## **Introduction**

On behalf of the Western Indian Ocean Marine Turtle Task Force, the Chair and Vice Chair would like to convey their sincerest thanks to Douglas Hykle of the CMS IOSEA Secretariat for his generous efforts in accommodating this meeting within the IOSEA Signatory States meeting.

## **Country updates of key marine turtle associated events**

### **Comores**

- The monitoring of green turtle nesting in Moheli Marine Park continues in partnership with ADSEI NGO.
- There is collaboration with Kelonia on research and capacity-building with respect to green turtle genetics and satellite tracking.
- The problem with respect to poaching by fishers from other islands (Anjouan) was acknowledged.
- Comores submitted a site proposal to the IOSEA Network of Sites of Importance for Marine Turtles for Moheli Marine Park.

### **Kenya**

- Kenya Wildlife Service (KWS) is collaborating with US researchers on effects of climate change on marine turtle reproduction. Temperature loggers have been deployed at nesting sites to provide insight into the impacts of climate change on nest temperatures.
- The national seagrass and coral reef strategy will be launched in October 2014. This is a collaboration between KWS, Kenya Fisheries Department, Kenya Marine Fisheries Research Institute (KMFRI), Ministry of Environment, Cordio EA, Wildlife Conservation Society, WWF, East Africa Wildlife Society (EAWS). The work is linked to a regional coral reef task force via UNEP and the Western Indian Ocean Marine Science Association (WIOMSA). There will be an awareness campaign leading up to launch, including an essay competition in local schools.
- A bi-lateral meeting with Tanzania will be held in October to discuss a proposed coastal trans-boundary conservation area between Kenya and Tanzania with support from UNEP Nairobi Convention, which will address issues such as illegal fishing at the border including dynamite fishing.
- The Cabinet have approved a national Integrated Coastal Zone Management policy which incorporates issues related to marine turtles.
- There are ongoing habitat and nesting site monitoring programmes in collaboration with NGOs and local communities
- A biodiversity assessment has been completed in Kisite Mpunguti Marine National Park and Reserve.
- There are plans to secure turtle nesting sites with fencing in Malindi, Watamu, Mombasa and Lamu (Kiunga) to restrict access. Funding from Kenya Coastal Development Project (World Bank-funded project).
- KWS will be implementing the MASMA-funded Dugong programme that includes habitats assessments, Socio-economic assessments (by-catch assessment) and aerial census.

## **Madagascar**

- New national strategy for marine turtle conservation (2012-2022) was published this year.
- Ministries and Focal Persons are working together to update sea turtle conservation measures and identify priority areas, with work on the ground targeting national marine parks and with assistance of international NGOs.
- Two sea turtle stakeholder workshops are planned for September (in south of Madagascar) and October (in north) 2014 focusing on biology, ecology and social aspects of turtle conservation.
- The Government is considering to use Vezo communities' approach to sea turtle conservation as a model for replication elsewhere in Madagascar.

## **Mauritius**

- A national committee for conservation of sea turtles has been established to prepare a national action plan. This will be chaired by the Ministry of Fisheries and will involve collaboration between Government, NGOs and private sector.
- National sea turtle work will be funded by the Government and private sector. New work includes surveys to assess sea turtle nesting activity in Mauritius mainland, Agalega and St Brandon.
- Awareness and sensitisation campaigns using TV and radio, targeting public, school pupils and developers are being developed and implemented.
- A programme of beach patrols at potential nesting sites will be implemented through development of Ranger Programme. Private guards will be recruited to assist fishery officers in beach patrols and to collect nesting data.
- Surveys of nesting beaches are being organised for St Brandon through the national committee to collect data on sea turtles, mammals and birds. Survey Forms have been prepared for the collection of data.
- An observer programme on purse seiners is now in place to implement the IOTC Resolution 12/04 on the Conservation of Marine Turtles.

## **Mozambique**

- Mozambique is celebrating 20 years of sea turtle monitoring at Ponto d'Ouro, which supports 80% of national leatherback nesting and 95% of national loggerhead nesting in Mozambique.
- The Ministry of Environment is leading on satellite tracking and genetics studies.
- Awareness programmes have been established with local communities at Bazaruto Archipelago in Inhambane Province.
- A large port development is underway in southern Mozambique close to Ponto d'Ouro.

## **Seychelles**

- Seychelles has implemented long-term monitoring of nesting beaches with 20 programmes in operation in the country carried out by the Islands Conservation Society. The work is currently expanding into southern islands.

- A national marine spatial planning project (funded by The Nature Conservancy) has been established to identify new potential marine protected areas. Currently 50% of land area to be set aside for protection. New MPAs will include nesting beaches on outer islands, with up to 30% of national marine area under negotiation for inclusion in an expanded MPA network.
- Satellite tracking programmes including green and hawksbill post-nesting turtles are underway, and suggest further habitat mapping is needed to identify distribution of seagrass and coral reef habitat.
- A collaboration with IFREMER on green turtle genetics is underway, with a manuscript in preparation. Work with Karl Philips of University of East Anglia on hawksbill genetics was published as a PhD thesis in 2013 – see <https://ueaeprints.uea.ac.uk/48091/>
- The Seychelles' 2<sup>nd</sup> annual sea turtle festival held was held in August 2014 – with extensive outreach activities. This event has now been approved as an annual event with support from the Ministry of Culture.
- Seychelles submitted a site proposal to the IOSEA Network of Sites of Importance for Marine Turtles for Aldabra.

### **South Africa**

- South Africa has submitted a site proposal to the IOSEA Network of Sites of Importance for Marine Turtles for iSimangaliso Wetland Park.
- A spatial planning project is underway coordinated through the Nelson Mandela Metropolitan University developing an IOSEA site network analysis using MARXAN.
- Five more post-nesting leatherbacks have been satellite tagged in Natal, all migrated north into Mozambique Channel and remained in inshore, shallow waters (A leatherback has been tracked by India from the Nicobar islands to WIO region waters). In addition, a sub-adult hawksbill was tracked from Natal to NE Madagascar demonstrating connectivity between sites that was previously unknown.
- Nesting beach monitoring programme is now approximately 50 years old. There are some uncertainties regarding status of the leatherback population. The SA Government will be providing funding to double the monitoring area.
- National management plan for turtles in progress, but not expected to be published within 2 years.
- The IOTC Observer programme in SA has not been functioning for the past two years.
- Ecological Risk Assessment re. fisheries interactions in Indian Ocean was completed by Dr Nel for the IOTC.
- Tucek et al (2014) published the results of the loggerhead hatchling notching programme, which shows that age to maturity in South Africa's breeding loggerhead turtles is a mean of 36 years. See <http://max2.esse.u-psud.fr/epc/conservation/Publi/n023p167.pdf>

### **Tanzania**

- Tanzania is celebrating its third successive season of saturation flipper tagging programme during peak nesting season (April & May) at two nesting sites.

- Four satellite tags have been deployed on post-nesting green turtles by Sea Sense. Three migrated: one to central Somalia, one remained in Tanzania and third migrated to Kenya but turned round and returned to Tanzania.
- A draft national sea turtle and dugong awareness strategy has been produced by the Tanzania Turtle and Dugong Conservation Committee (TTDCC), which is currently being circulated for comments.
- A series of marine legislation seminars were held in 2014 targeting law enforcement authorities, which were designed to sensitise officers on legislation protecting sea turtles.
- Tanzania has submitted a site proposal to the IOSEA Network of Sites of Importance for Marine Turtles for the Rufiji Delta – Mafia Island seascape.
- A bycatch survey is currently being conducted by Sea Sense in two districts involving at-sea observations during setting and hauling of gill nets and questionnaire interviews of fishers.
- The Marine Parks and Reserves Unit has conducted awareness campaigns in MPAs to address widespread consumption of turtle meat, which targeted local fisher communities.
- A flip-flop recycling project was launched in Mafia Island in 2013. The project is helping to clean nesting beaches in Mafia and generate income for local communities through the sale of recycled flip flop handicrafts.
- Sea Sense NGO has begun teaching modules in marine turtle biology and conservation at University of Dar es Salaam and the Fisheries Education and Training Agency (FETA).

### **United Kingdom**

- An updated Conservation Management Framework for the Archipelago will be published later in 2014, and will include measures to further protect natural resources and strengthen enforcement.
- Turtle monitoring on Diego Garcia was revived in March 2011 and is implemented by personnel of the US Naval Support Facility (NSF) Environmental Office in collaboration with Jeanne Mortimer (Seychelles)
- Hays et al (2014) published the results of the first satellite tracking of post-nesting green turtles from the Chagos Archipelago (see <http://onlinelibrary.wiley.com/doi/10.1111/cobi.12325/abstract>). Seven out of 8 turtles tracked migrated away from the Archipelago, with two turtles migrating to Somalia, four turtles migrating to the Seychelles and one turtle migrating to the Maldives. Funding has been sought to expand this programme with more tags.
- Dr Graeme Hays will be returning to the Archipelago this year to continue his monitoring of nesting beach temperature through further data logger deployment at Diego Garcia.

## **MTTF WIO socio-economic/cultural research workshops strategic planning**

Discussions were held regarding the pre-circulated concept note entitled '*Western Indian Ocean Marine Turtle Task Force Socio-Economic & Cultural Workshops*' (see Appendix 1).

The MTTF members present accepted the concept note and proceeded with planning deliberations.

### **Geographical sites**

Delegates identified and offered the following candidate workshop sites.

- Comoros: the ADSEI community-based project at Itsamia in the Moheli Marine Park (see [http://www.ioseaturtles.org/pom\\_detail.php?id=59](http://www.ioseaturtles.org/pom_detail.php?id=59))
- Madagascar: Nosy Hara MPA in the north (MPA action plan currently being finalised), and Blue Ventures community-based fisheries and Locally Managed Marine Area (LMMA) sites in the west (e.g. Velondriake), or Vezo community areas in the south west (e.g. Andavadoaka).
- Tanzania: collaborative fisheries management areas (CFMAs) in the proposed Rufiji and Mafia Seascape 'IOSEA Site of Importance for Marine Turtles'.
- South Africa: Sekhulu community-managed mussel fishery project
- Kenya: some LMMA sites

### **Purpose, expected outcome and evaluation of workshops**

Delegates identified the following turtle conservation threats/issues, an understanding of which could be facilitated through socio-economic and cultural research approaches potentially investigated through the workshops:

- Directed illegal take of turtles and turtle eggs;
- Bycatch and illegal use of accidentally caught turtles;
- Damage and disturbance to foraging grounds and nesting beaches caused by human activities;
- Local impacts of eco-tourism and other alternative livelihood schemes;
- Local impacts of education and outreach programmes.

Delegates identified the following benefits of participating in the workshops.

### **Purpose**

- Share direct experiences of taking account of the 'human dimension' of turtle conservation between MTTF members;
- Showcase cooperation between government and local communities for conservation benefit (e.g. at Moheli Marine Park);

- Assist host nations with reviewing national action plans (e.g. Comoros with their review of the 1998 national turtle conservation action plan);
- Develop an understanding of processes and methods that can lead to strong community stewardship;
- Exposure to 'live experiences' and challenges;
- Gain technical knowledge of socio-economic research approaches and best practices;
- Improved understanding of the socio-economic implications of MPA designation (i.e. denial of access to resources);
- Observe direct experiences of successful MPA management.

### **Expected Outcomes**

- Lessons learned and shared experiences;
- Direct observations and interactions with local communities involved in conservation initiatives;
- Opportunities to take host organisation's approaches home and adapt/replicate in other WIO countries;
- Leverage for additional funding due to increased scope of conservation approaches;
- Develop synergies with other species/ecosystem conservation initiatives and conservation tools;
- Optimisation of conservation effort and development of multi-disciplinary approaches.

### **Evaluation**

- Measurable changes to approaches MTTF and associates are using to implement conservation interventions;
- Direct impact on turtle population indicators, e.g. hatching success, number of nesters;
- Increased funding opportunities, political support and private-sector engagement due to multi-disciplinary approach;
- Number of publications arising from work;
- Greater stakeholder engagement by projects (which may lead to greater compliance to regulations protecting sea turtles and their habitats).

### **Priority tasks**

#### **Project champions and possible dates**

MTTF members identified project champions from candidate locations and earliest proposed dates for hosting workshops.

**Madagascar:** Ms Félicitée Rejo - end April to October 2015

**Comores:** Mr Anfani Msoili - end May/early June 2015

**Kenya:** Mr Mohamed Omar – August 2015

**South Africa:** Dr Ronel Nel – July 2016

MTTF members also identified the following in-country tasks for project champions:

- Liaison with all relevant stakeholders/decision makers/Government;
- Identify venue(s), including site visits for agreed venue;
- Develop budget for costs of flights, accommodation, subsistence, insurance, ground transport etc.
- Develop list of invitees with MTTF Chair/Vice Chair, including local/regional socio-economists;
- Decide first language of workshop and recruit translators where necessary;
- Develop workshop format and programme;
- Source local/regional funding.

MTTF members identified regional coordination tasks for Chair and Vice Chair:

- Coordination between all participants, MTTF and IOSEA Secretariat;
- Coordination of international logistical planning;
- Securing and inviting regional/international socio-economic research experts;
- Sourcing international funding in collaboration with IOSEA Secretariat;
- Chair and/or Vice Chair attendance of workshops where appropriate;
- Coordinate regional and international publicity for initiative in collaboration with IOSEA Secretariat.

***ACTIONS:***

- Chair and Vice Chair to develop proposal before the end of SS7 and circulate to MTTF for comments;
- MTTF comments to be sent to Chair before the end of September 2014;
- MTTF comments incorporated, and proposal finalised by end of October 2014;
- Location of first workshop agreed and costed by 15<sup>th</sup> October in preparation for first submissions to donor agencies/organisations.

**Fish Aggregation Devices (FADs) and their impacts on turtles – what do we know and what can we do?** (presented by Dr Jeanne Mortimer)

Mauritius: 24 anchored FADs in Mauritian waters. No reported problems;

UK: Very limited data available on FADs;



Seychelles: A recommendation should be made to the Secretariat during the sub-regional consultations that FAD entanglement should be acknowledged and investigated through the Secretariat.

Dr Colin Limpus: Need data on numbers and distribution of FADs in the region in order for the issue to be recognised;

UK: Data should be captured in national reports, which are shared during SS7.

South Africa: Suggested adding FAD information to IOSEA website (including Dr Mortimer's presentation) and countries to add as data becomes available. This could create leverage to take issue to the Indian Ocean Tuna Commission and also educate stakeholders in the wider region about FAD design/use etc so that they are more informed and more likely to report them when encountered.

**ACTION:** Chair to incorporate FAD discussion into meeting report, and make a recommendation through the sub-regional consultations during IOSEA SS7 meeting to all members to research FAD status in their country to share on IOSEA website (as agreed with Secretariat).

**Close** - The meeting was closed after a summary of the actions was repeated by the Chair and confirmed with members.

## Appendix 1

### WESTERN INDIAN OCEAN MARINE TURTLE TASK FORCE

#### SOCIO-ECONOMIC & CULTURAL WORKSHOPS

(Draft concept note 28.08.14)

Socio-economic and cultural considerations are absolutely essential for understanding and resolving the many and varied complexities of environmental conservation and management. However, socio-economic and cultural considerations are routinely undervalued and ignored by conservation programmes, hence there is a pressing need to redress this situation.

**Aim:** Enhance marine turtle conservation, especially in the Western Indian Ocean (WIO), through broader acknowledgement and understanding of societal impacts of marine turtle conservation and human-turtle interactions.

#### **Specific objectives:**

- Hold a series of sub-regional workshops to expose interested MTTF members and regional marine turtle conservationists and researchers to socio-economic research and best practice approaches;
- Enhance understanding amongst WIO MTTF members, collaborators and associates of socio-economic approaches to marine turtle conservation;
- Promote a multi-disciplinary approach to marine turtle conservation;
- Improve skills and efficiency of WIO MTTF members, collaborators and associates to design, implement and evaluate marine turtle conservation programmes that incorporate socio-economic and cultural considerations;
- Share experiences amongst WIO MTTF members, collaborators and associates and generate lessons learned to strengthen more effective and efficient marine turtle conservation activities throughout the wider IOSEA region;
- Subsequently, use the experiences and lessons learned to strengthen more effective and efficient marine conservation activities throughout the IOSEA region.
- Establish mechanism for capturing good practice and measuring impact of taking account of socio-economic and cultural considerations in the region.

#### **Projected outcomes:**

- Enhanced capacity of MTTF members and other marine turtle conservationists working in the WIO to integrate socio-economic considerations into conservation programme design, implementation, and evaluation;
- Strengthened regional (WIO) cooperation and skills/knowledge transfer regarding socio-economic research and considerations in marine turtle conservation;
- Effective regional marine turtle conservation integrating and accounting for societal values/considerations of coastal communities and other key stakeholders.

#### **Measures of success:**

- Numbers of marine turtle conservation projects in the WIO region incorporating socio-economic research methodology and best practice into marine turtle conservation/marine resource use projects;
- Improved stakeholder engagement in regional marine turtle conservation programmes;

- Enhanced efficiency in the utilization of personnel, logistic and material support, and financial support in the design and implementation of marine turtle conservation activities and programmes in the WIO;
- More meaningful and lasting alternative and novel conservation approaches and methods for WIO activities and programmes;
- Improved conservation outcomes;
- Growth and expansion in the use and adaptation of the WIO model(s) for strengthening integration and skills in socio-economic considerations throughout the IOSEA region.

**Action:** Develop a series of sub-regional workshops to expose interested MTTF members and regional marine turtle conservationists and researchers to socio-economic research and best practice approaches through participation in ongoing projects, and direct learning of basic socio-economic and cultural studies theory, research methodology and evaluation.

### **Provisional plan**

- Develop by consensus a MTTF strategy for implementing this aspect of the MTTF workplan, before the end of the 7<sup>th</sup> Meeting of the IOSEA Signatory States;
- Primary steps:
  - Draft and develop outline proposal with MTTF members before the 7<sup>th</sup> Meeting of the IOSEA Signatory States meeting;
  - Identify project champions within the WIO, particularly MTTF representatives, with a commitment to implementing the proposal in a timely manner;
  - Finalise, before the end of the 7<sup>th</sup> Meeting of the IOSEA Signatory States:
    - project principles, objectives, outcomes, and evaluation procedures of project;
    - outline of workshops and content;
    - identify geographic units within the WIO for conducting specific workshops (e.g. workshops conducted in English, French, Swahili, etc.);
    - finalise an implementation plan, time table, and priority tasks with project champions.
- Establish methods for measuring and reporting short, medium and longer term impact
- Before the end of 2014, develop advanced plans for the first pilot workshop in 2015 in a selected host nation for sub-regional MTTF participation (e.g. Comores, Madagascar, Tanzania).
  - With the active support of project champions, identify collaborators from projects and practitioners in socio-economic-cultural research and conservation, and identify host workshop location;
  - Develop detailed workshop outline with project champions and project collaborators, host nation and regional experts;
  - Together with key actors identify various types of support (e.g., specialised personnel, travel, lodging, equipment, materials, financial) necessary to carry out the workshop;
  - Together with key actors develop proposals for support and funding, identify potential supporters and funders, and submit proposals for support;
  - Finalise plans and implement workshop with key players;
  - Together with key players write a full report on the results of first workshop, and distribute it to MTTF members, the IOSEA Secretariat, and other key players.
- Review experiences and lessons from first workshop, and develop plans and proposals for second and subsequent workshops in the WIO.