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## STATUS OF DEVELOPMENT AND IMPLEMENTATION OF NATIONAL PLANS OF ACTION FOR SEABIRDS AND SHARKS

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### PURPOSE

To provide participants at the Working Party on Ecosystems and Bycatch the opportunity to update and comment on the current status of development and implementation of National Plans of Action for seabirds and sharks, for provision to the Scientific Committee.

### BACKGROUND

In 1999, member countries of the United Nations Food and Agriculture Organisation of the United Nations (FAO) developed the International Plan of Action for the Conservation and Management of Sharks (IPOA–Sharks; FAO 1999).

The IPOA–Sharks suggests that members develop a National Plan of Action if their vessels conduct targeted fishing for sharks or if they regularly catch sharks in fisheries targeting other species.

The IPOA–Sharks (FAO) 1999) has the objective, “to ensure the conservation and management of sharks and their long-term sustainable use” and prescribes the following aims:

- Ensure that shark catches from directed and non-directed fisheries are sustainable.
- Assess threats to shark populations, determine and protect critical habitats and implement harvesting strategies consistent with the principles of biological sustainability and rational long-term economic use.
- Identify and provide special attention, in particular to vulnerable or threatened shark stocks.
- Improve and develop frameworks for establishing and coordinating effective consultation involving all stakeholders in research, management and educational initiatives within and between States.
- Minimize unutilized incidental catches of sharks.
- Contribute to the protection of biodiversity and ecosystem structure and function.
- Minimize waste and discards from shark catches in accordance with article 7.2.2.(g) of the *Code of Conduct for Responsible Fisheries* (for example, requiring the retention of sharks from which fins are removed).
- Encourage full use of dead sharks.
- Facilitate improved species-specific catch and landings data and monitoring of shark catches.
- Facilitate the identification and reporting of species-specific biological and trade data.

The IPOA Sharks requires each member nation that take shark in their fisheries to prepare a shark assessment report (SAR) with the aim of identifying conservation, management and any other issues associated with the shark catch. If necessary, these issues can then be addressed in a NPOA–Sharks. The SAR is to be updated regularly to report the status of shark stocks as assessments are made and to identify gaps in knowledge. The NPOA–Sharks requires collection and ongoing synthesis of compatible data at the appropriate resolution, including *inter alia* commercial data and data leading to improved species identification and, eventually, abundance indices.

The shark data collected by IOTC CPCs for trans-boundary, highly migratory and high seas shark stocks should be done through international collaboration and data sharing systems and all shark data should be made available to relevant subregional and regional fisheries organisations, and the FAO (IPOA–Sharks 1999).

### DISCUSSION

Prior to the 15<sup>th</sup> Session of the Scientific Committee, the Secretariat circulated the table adopted by the previous Scientific Committee for comment and updating by each of the 33 CPCs (31 Members and 2 Cooperating Non-Contracting Parties). Comments and updates were received from 23 CPCs, for the consideration of the SC.

At the 15<sup>th</sup> Session of the SC, the SC **NOTED** the following:

(para. 34) The SC **NOTED** the adoption of an *Action Plan for reducing incidental catches of seabirds in fishing gears* by the EU in 2012 (IOTC–2012–SC15–INF07). The new Plan focuses on longline and gillnet fisheries where seabird bycatch are known to be highest, although other gears such as trawls and purse seines are also covered by the plan. It entails a wide range of elements under 30 recommended actions that are a combination of binding and non-binding measures. The rules will apply to EU fishing vessels inside and outside EU waters as well as non-EU vessels operating in EU waters. A copy of the Plan may be obtained from the EU or the IOTC Secretariat.

(para. 35) The SC **NOTED** that the original purpose of the FAO National Plans of Action for Seabirds (NPOA-Seabirds) in 1998 was to address concerns about longline fishing. However, recent information has shown significant concerns about seabird bycatch in several other capture fisheries, especially gillnet fishing. The 2009 FAO Best Practice Technical Guidelines, developed to assist in the preparation of NPOA-Seabirds, explicitly includes advice on longline, trawl and gillnet fisheries.

(para. 36) The SC **NOTED** that species such as cormorants and migratory shearwaters (which are common in coastal waters of many IOTC coastal states), are known to be especially vulnerable to bycatch in gillnet fisheries. CPCs operating gillnet fisheries were strongly **ENCOURAGED** to go through an NPOA-Seabirds assessment exercise. BirdLife International has previously offered assistance to CPCs wishing to assess the impacts of gillnet fishing in their national fisheries.

(para. 37) The SC **NOTED** the current status of development and implementation of Nation Plans of Action for sharks and **RECOMMENDED** that all CPCs without an NPOA-Sharks expedite the development and implementation of their NPOA-Sharks, and to report progress to the WPEB in 2013, recalling that NPOA-Sharks are a framework that should facilitate estimation of shark catches, and development and implementation of appropriate management measures, which should also enhance the collection of bycatch data and compliance with IOTC Resolutions.

In August 2013, the Secretariat circulated the table adopted by the Scientific Committee for further comment and updating by each of the 33 CPCs. Comments and updates were received from 5 CPCs [as of 22 August 2013], which have been incorporated into the table provided at Attachment A, for the consideration of the WPEB.

Text in RED and CPCs highlighted in YELLOW had not provided an update as of 22 August 2013, and thus, the text is from the 2012 SC report.

### **Marine turtles**

In 2012, the Commission adopted Resolution 12/04 on the conservation of marine turtles. Contained within Resolution 12/04, is a requirement to report on progress in the implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations, as follows:

*Para 5: CPCs shall report to the Commission in the annual implementation report, in accordance with Article X of the IOTC Agreement, their progress of implementation of the FAO Guidelines and this Resolution.*

The WPEB may wish to request that the Secretariat include this requirement, as part of the annual preparation of the current working paper, specifically within [Appendix A](#).

For information, the current tabulated requirements of Resolution 12/04, including the FAO guidelines are provided in [Appendix B](#).

### **RECOMMENDATION/S**

That the WPEB:

- 1) **NOTE** the current status of development and implementation of National Plans of Action for sharks and seabirds, by each CPC.
- 2) **RECOMMEND** that the IOTC Secretariat incorporate CPC progress in the implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations, as required in Resolution 12/04, into an annual WPEB and SC paper titled, *Status of development and implementation of national plans of action for seabirds and sharks, and implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations*.

**APPENDICES**

**Appendix A:** [2013: Progress on the development and implementation of National Plans of Action for sharks and seabirds](#)

**Appendix B:** Reporting of progress of implementation of the FAO Guideline to Reduce Sea Turtle Mortality in Fishing Operation and on the implementation of Resolution 12/04 *On the conservation of marine turtles*.

FAO 1999. [The international plan of action for the conservation and management of sharks](#). United Nations Food and Agriculture Organisation, Rome.

## APPENDIX A

## 2013 : PROGRESS ON THE DEVELOPMENT AND IMPLEMENTATION OF NATIONAL PLANS OF ACTION FOR SHARKS AND SEABIRDS

CPC	Sharks	Date of Implementation	Seabirds	Date of implementation	Comments
<b>MEMBERS</b>					
Australia		14-Apr-2004		2006	Sharks: 2 <sup>nd</sup> NPOA-Sharks (Shark-plan 2) was released in July 2012, along with an operational strategy for implementation: <a href="http://www.daff.gov.au/fisheries/environment/sharks/sharkplan2">http://www.daff.gov.au/fisheries/environment/sharks/sharkplan2</a> Seabirds: Has implemented a Threat Abatement Plan [TAP] for the Incidental Catch (or Bycatch) of Seabirds During Oceanic Longline Fishing Operations since 1998. The present TAP took effect from 2006 and largely fulfills the role of an NPOA in terms of longline fisheries. The 2006 TAP is currently under review. Also currently undertaking an assessment of seabird bycatch in trawl, gillnet and purse seine fisheries, and will develop an NPOA to bring together fisheries plans and actions to reduce the incidental catch of seabirds in longline, trawl and gillnet fisheries.
Belize					Sharks: No information received by the Secretariat. Seabirds: No information received by the Secretariat.
China		–		–	Sharks: Development has not begun. Seabirds: Development has not begun.
–Taiwan,China		May 2006		May 2006	Sharks: No revision currently planned. Seabirds: No revision currently planned.
Comoros		–		–	Sharks: Development has not begun. Seabirds: Development has not begun.
Eritrea					Sharks: No information received by the Secretariat. Seabirds: No information received by the Secretariat.
European Union		5 Feb 2009		16-Nov-2012	Sharks: Approved on 05-Feb-2009 and it is currently being implemented. Seabirds: The EU adopted on Friday 16 November an Action Plan to address the problem of incidental catches of seabirds in fishing gears.
France (territories)					Sharks: Approved on 05-Feb-2009 but not yet implemented. Seabirds: No information received by the Secretariat.
Guinea					Sharks: No information received by the Secretariat. Seabirds: No information received by the Secretariat.
India					Sharks: Currently being drafted with the assistance of BOBP-IGO Seabirds: India has determined that seabird interactions are not a problem for their fleets.
Indonesia		–		–	Sharks: NPOA guidelines developed and released for public comment among stakeholders in 2010 (funded by ACIAR Australia—DGCF). Training to occur in 2011, including data collection for sharks based on forms of statistical data to national standards (by DGCF (supported by ACIAR Australia). Implementation expected late 2011/early 2012. Seabirds: Development has not begun.
Iran, Islamic Republic of		–		–	Sharks: Have communicated to all fishing cooperatives the IOTC resolutions on sharks. Have in place a ban on the retention of live sharks. Seabirds: I.R. Iran determined that seabird interactions are not a problem for their fleet as

					they consist of gillnet vessels only.
<b>Japan</b>		03-Dec-2009		03-Dec-2009	Sharks: NPOA–Shark assessment implementation report submitted to COFI in July 2012 Seabirds: NPOA–Seabird implementation report submitted to COFI in July 2012.
<b>Kenya</b>			n.a.	–	Sharks: The Ministry has plans to begin development of NPAO sharks during the 213/14 planning year. The Secretariat shall be posted on the progress of this activity from time to time. Seabirds: Kenya does not have any flagged longline vessels on its registry. There is no evidence of any gear seabird interaction with the current fishing fleet. Kenya does not therefore consider developing NPOA seabirds as necessary.
<b>Korea, Republic of</b>		–		–	Sharks: Approved on 18/08/2011 and is currently being implemented. Seabirds: Early stages of development.
<b>Madagascar</b>		–		–	Sharks: Development has not begun. Seabirds: Development has not begun. Note: A fisheries monitoring system is in place in order to ensure compliance by vessels with the IOTC’s shark and seabird conservation and management measures.
<b>Malaysia</b>		2006	n.a.	–	Sharks: A review of the NPOA-Shark (2006) is in the final stages, with stakeholder consultation due to be completed in September 2013. A revised NPOA-Sharks is expected to be published by the end of 2013. Seabirds: Malaysia has carried out a review and determined that an NPOA-Seabirds is not necessary as no longline vessels flagged to Malaysia fish south of 20 degrees south.
<b>Maldives, Republic of</b>		–	n.a.	–	Sharks: An earlier draft of the NOPA is available: Gaps/issues that arose following the total shark ban have been identified through support from the Bay of Bengal Large Marine Ecosystem (BOBLME) Project. Presently Maldives is seeking further support from BOBLME Project to finalize the plan and associated regulation to be published in Government Gazette. Seabirds: Article 12 of IPOA states that if a ‘problem exists’ CPCs adopt an NPOA. IOTC Resolution 05/09 suggests CPCs to report on seabirds to the IOTC Scientific Committee if the issue is appropriate’. Maldives considers that seabirds are not an issue in Maldives fisheries, both in the pole-and-line fishery and in the longline fishery. The new longline fishing regulations has provision on mitigation measures on seabird bycatch. Maldives will be reporting on seabirds to the appropriate technical Working Party meetings of IOTC.
<b>Mauritius</b>					Sharks: Currently being drafted. Seabirds: Drafting will commence upon completion of NPOA–Sharks. In the meantime fishing companies have been requested to implement all mitigation measures as provided in the IOTC Resolutions.
<b>Mozambique</b>		–		–	Sharks: Development has not begun. Seabirds: Development has not begun.
<b>Oman, Sultanate of</b>					Sharks: No information received by the Secretariat. Seabirds: No information received by the Secretariat.
<b>Pakistan</b>					Sharks: No information received by the Secretariat. Seabirds: No information received by the Secretariat.
<b>Philippines</b>		Sept. 2009		–	Sharks: Under periodic review. Shark catches for 2010 provided to the Secretariat. Seabirds: Development has not begun. No seabird interactions recorded.
<b>Seychelles, Republic of</b>		Apr-2007		–	Sharks: NPOA-sharks to be reviewed in 2012. Seabirds: Development has not begun.
<b>Sierra Leone</b>					Sharks: No information received by the Secretariat. Seabirds: No information received by the Secretariat.

<b>Sri Lanka</b>					Sharks: An NPOA-sharks is planned for development in 2012 and an update will be provided at the next SC meeting. Seabirds: Sri Lanka has determined that seabird interactions are not a problem for their fleets.
<b>Sudan</b>					Sharks: No information received by the Secretariat. Seabirds: No information received by the Secretariat.
<b>Tanzania, United Republic of</b>		–		–	Sharks: Initial discussions have commenced. Seabirds: Initial discussions have commenced. Note: Terms and conditions related to protected sharks and seabirds contained within fishing licenses.
<b>Thailand</b>		23-Nov-2005		–	Sharks: Second NPOA-sharks currently being drafted. Seabirds: Development has not begun.
<b>United Kingdom</b>	n.a.	–	n.a.	–	Not applicable: British Indian Ocean Territory (Chagos Archipelago) waters are a Marine Protected Area closed to fishing except recreational fishing around Diego Garcia. For sharks, UK is the 24 <sup>th</sup> signatory to the Convention on Migratory Species 'Memorandum of Understanding on the Conservation of Migratory Sharks' which extends the agreement to UK Overseas Territories including British Indian Ocean Territories; Section 7 (10) (e) of the <i>Fisheries (Conservation and Management) Ordinance</i> refers to recreational fishing and requires sharks to be released alive. No seabirds are caught in the recreational fishery.
<b>Vanuatu</b>					Sharks: No information received by the Secretariat. Seabirds: No information received by the Secretariat.
<b>Yemen</b>					Sharks: No information received by the Secretariat. Seabirds: No information received by the Secretariat.
<b>COOPERATING NON-CONTRACTING PARTIES</b>					
<b>Senegal</b>		25-Sept-2006		–	Sharks: The Sub-Regional Fisheries Commission supported the development of a NPOA-sharks for Senegal in 2005. Other activities conducted include the organization of consultations with industry, the investigation of shark biology and social -economics of shark fisheries). The NPOA is currently being revised. Consideration is being made to the inclusion of minimum mesh size, minimum shark size, and a ban on shark finning. Seabirds: The need for a NPOA-seabirds has not yet been assessed.
<b>South Africa, Republic of</b>		–		2008	Sharks: The gazetting of the draft NPOA-sharks for public comment has been approved by the Minister of the Department of Agriculture, Forestry and Fisheries (6 July 2012). Seabirds: Published in August 2008 and fully implemented. The NPOA-seabirds has been earmarked for review.

Colour key	
NPOA Completed	
Drafting being finalised	
Drafting commenced	
Not begun	

## APPENDIX B

## RESOLUTION 12/04 – ON MARINE TURTLES

**Reporting of progress of implementation of the FAO Guideline to Reduce Sea Turtle Mortality in Fishing Operation and on the implementation of Resolution 12/04 On the conservation of marine turtles**  
**(Paragraph 5)**

## DEADLINE

With the implementation report, 60 days before the meeting of the Commission - annually

Reporting year: [Click here to enter text.](#)

Date of reporting: [Click here to enter text.](#)

Reporting flag CPC: [Click here to enter text.](#)

Progress of implementation of the measures of the resolution 12/04	Action undertaken
<ul style="list-style-type: none"> <li>• Collect (through logbooks and observer programs) and provide to the Scientific Committee all data on their vessels interactions with marine turtles,</li> <li>• Furnish information to the Scientific Committee on successful mitigation measures and other impacts on marine turtles (such as the deterioration of nesting sites &amp; swallowing of marine debris).</li> </ul>	
<ul style="list-style-type: none"> <li>• Require fishermen to bring aboard, if practicable, any captured hard shelled turtle that is comatose or inactive as soon as possible and foster its recovery, including aiding in its resuscitation, before safely returning it to the water.</li> <li>• Ensure that fishermen are aware of and use proper mitigation and handling techniques and keep on board all necessary equipment for the release of turtles</li> </ul>	
<ul style="list-style-type: none"> <li>• For gillnet vessels               <ul style="list-style-type: none"> <li>• Require vessel to record all incidents involving marine turtles in the logbooks and report incidents to authorities of the CPC</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• For longline vessels               <ul style="list-style-type: none"> <li>• (a) Ensure that longline vessels carry line cutters &amp; de-hookers to facilitate the handling and release of marine turtles caught or entangled</li> <li>• Ensure that operators of such vessels are required to carry &amp; use dip-nets</li> <li>• (b) Encourage use of whole finfish bait;</li> <li>• (c) Require vessel to record all incidents involving marine turtles in the logbooks and report incidents to authorities of the CPC.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• For purse seine vessels:               <ul style="list-style-type: none"> <li>(a) Ensure that vessels:                   <ul style="list-style-type: none"> <li>(i) Avoid encirclement of marine turtles, if a marine turtle is encircled/ entangled, take measures to safely release the turtle.</li> <li>(ii) Release all marine turtles observed entangled in fish aggregating devices (FADs) or fishing gear.</li> </ul> </li> </ul> </li> </ul>	

<ul style="list-style-type: none"> <li>• (iii) If a marine turtle is entangled in the net, stop net roll as soon as the turtle comes out of the water; disentangle the turtle without injuring it before resuming the net roll; and assist the recovery of the turtle before returning it to the water.</li> <li>• (iv) Carry and employ dip nets to handle turtles.</li> <li>(b) Encourage vessel to adopt FAD designs which reduce the incidence of entanglement of turtles;</li> <li>(c) Require vessel to record incidents involving marine turtles in the logbooks and report incidents to authorities of the CPC</li> </ul>	
<ul style="list-style-type: none"> <li>• CPCs to undertake research trials of circle hooks, use of whole finfish for bait, alternative FAD designs, alternative handling techniques, gillnet design and fishing practices and other mitigation methods which may improve the mitigation of adverse effects on turtles</li> </ul>	
<ul style="list-style-type: none"> <li>• CPCs continue to undertake research and development to improve the mitigation of adverse affects on marine turtles &amp; provide research outcomes to the Scientific Committee.</li> </ul>	
<ul style="list-style-type: none"> <li>• Collaborate with the IOSEA and take into account the IOSEA MoU</li> </ul>	

<b>Progress of implementation of the Guidelines to Reduce Sea Turtle Mortality in Fishing Operations</b>	<b>Actions undertaken</b>
Legal framework	
<p><b>1. Fishing operations / A. Appropriate handling and release.</b> In order to reduce injury and improve chances of survival:</p> <ul style="list-style-type: none"> <li>(i) Requirements for appropriate handling, including resuscitation or prompt release of all bycaught or incidentally caught (hooked or entangled) sea turtles.</li> <li>(ii) Retention and use of necessary equipment for appropriate release of bycaught or incidentally caught sea turtles.</li> </ul>	
<p><b>1. Fishing operations / B. Coastal trawl</b></p> <ul style="list-style-type: none"> <li>(i) In coastal shrimp trawl fisheries, promote the use of turtle excluder devices (TEDs) or other measures that are comparable in effectiveness in reducing sea turtle bycatch or incidental catch and mortality.</li> <li>(ii) In other coastal trawl fisheries, collect data to identify sea turtle interactions and conduct where needed research on possible measures to reduce sea turtle bycatch or incidental catch and mortality.</li> <li>(iii) Implementation of successful methodologies developed as a result of B(ii).</li> </ul>	
<p><b>1. Fishing operations / C. Purse seine</b></p> <ul style="list-style-type: none"> <li>(i) Avoid encirclement of sea turtles to the extent practical.</li> <li>(ii) If encircled or entangled, take all possible measures to safely release sea turtles.</li> <li>(iii) For fish aggregating devices (FADs) that may entangle sea turtles, take necessary measures to monitor FADs and release entangled sea turtles, and recover these FADs when not in use.</li> <li>(iv) Conduct research and development of modified FADs to reduce and eliminate entanglement.</li> <li>(v) Implementation of successful methodologies developed as a result of C(iv).</li> </ul>	
<p><b>1. Fishing operations / D. Longline</b></p> <ul style="list-style-type: none"> <li>(i) Development and implementation of appropriate combinations of hook design, type of bait, depth, gear specifications and fishing practices in order to minimize bycatch or incidental catch and mortality of sea turtles.</li> <li>(ii) Research should include consideration of the impact of various mitigation measures on sea turtles, target species and other bycaught or incidentally caught species, such as sharks and seabirds.</li> <li>(iii) Retention and use of necessary equipment for appropriate release of bycaught and incidentally caught sea turtles, including de-hooking, line cutting tools and scoop nets.</li> </ul>	
<p><b>1. Fishing operations / E. Other fisheries</b></p> <ul style="list-style-type: none"> <li>(i) Assessment and monitoring of sea turtle bycatch or incidental catch and mortality in relevant fishing operations.</li> <li>(ii) Research and development of necessary measures for reducing bycatch or incidental catch or to control mortality in other fisheries with a priority on reducing bycatch or incidental catch in gillnet fisheries.</li> <li>(iii) In other setnet fisheries, collect data to identify sea turtle interactions and conduct when needed research on possible measures to reduce sea turtle bycatch or incidental catch and mortality.</li> <li>(iv) Implementation of successful methodologies developed as a result of E (ii) and (iii).</li> </ul>	
<p><b>1. Fishing operations / F. Other measures as appropriate for all fishing practices</b></p> <ul style="list-style-type: none"> <li>(i) Spatial and temporal control of fishing, especially in locations and during periods of high concentration of sea turtles.</li> <li>(ii) Effort management control especially if this is required for the conservation and management of target species or group of target species.</li> </ul>	



(iii) Development and implementation, to the extent possible, of net retention and recycling schemes to minimize the disposal of fishing gear and marine debris at sea, and to facilitate its retrieval where possible.	
<p><b>2. Research, monitoring and sharing of information / A. Collection of information and data, and research</b></p> <p>(i) Collection of data and information on sea turtle interactions in all fisheries, directly or through relevant RFBs, regional sea turtle arrangements or other mechanisms.</p> <p>(ii) Development of observer programmes in the fisheries that may have impacts on sea turtles where such programs are economically and practically feasible. In some cases financial and technical support might be required.</p> <p>(iii) Joint research with other states and/or the FAO and relevant RFBs.</p> <p>(iv) Research on survival possibilities of released sea turtles and on areas and periods with high incidental catches.</p> <p>(v) Research on socio-economic impacts of sea turtle conservation and management measures on fishers and fisheries industries and ways to improve communication.</p> <p>(vi) Use of traditional knowledge of fishing communities about sea turtle conservation and management.</p>	
<p><b>2. Research, monitoring and sharing of information / B. Information exchange</b></p> <p>(i) Sharing and dissemination of data and research results, directly or through relevant RFBs, regional sea turtle arrangements or other mechanisms.</p> <p>(ii) Cooperation to standardize data collection and research methodology, such as fishing gear and effort terminology, database development, estimation of sea turtle interaction rates, and time and area classification.</p>	
<p><b>2. Research, monitoring and sharing of information / C. Review of the effectiveness of measures</b></p> <p>(i) Continuous assessment of the effectiveness of measures taken in accordance with these guidelines.</p> <p>(ii) Review of the implementation and improvement of measures stipulated above.</p>	
<p><b>3. Ensuring policy consistency</b></p> <p>A. Maintaining consistency in management and conservation policy at national level, among relevant government agencies, including through inter-agency consultations, as well as at regional level.</p> <p>B. Maintaining consistency and seeking harmonization of sea turtle management and conservation-related legislation at national, sub-regional and regional level.</p>	
<p><b>4. Education and training</b></p> <p>A. Preparation and distribution of information materials such as brochures, manuals, pamphlets and laminated instruction cards.</p> <p>B. Organization of seminars for fishers and fisheries industries on:</p> <ul style="list-style-type: none"> <li>– Nature of the sea turtle-fishery interaction problem</li> <li>– Need to take mitigation measures</li> <li>– Sea turtles species identification</li> <li>– Appropriate handling and treatment of bycaught or incidentally caught sea turtles</li> <li>– Equipment to facilitate rapid and safe release</li> <li>– Impacts of their operations on sea turtles</li> <li>– Degree to which the measures that are requested or required to adopt will contribute to the conservation, management and recovery of sea turtle population.</li> <li>– Impacts of mitigation measures on profitability and success of fishing operations</li> <li>– Appropriate disposal of used fishing gear</li> </ul> <p>C. Promotion of awareness of the general public of sea turtle conservation and management issues, by government as well as other organizations</p>	
<p><b>5. Capacity building</b></p> <p>A. Financial and technical support for implementation of these guidelines in developing countries.</p> <p>B. Cooperation in research activities such as on status of sea turtle incidental catch in coastal and high seas fisheries and research at foraging, mating and nesting areas.</p> <p>C. Establishment of a voluntary support fund.</p> <p>D. Facilitation of technology transfer.</p>	
<p><b>6. Socio-economic and cultural considerations</b></p> <p>A. Taking into account :</p> <p>(i) socio-economic aspects in implementing sea turtle conservation and management measures.</p> <p>(ii) cultural aspects of sea turtles interactions in fisheries as well as integration of cultural norms in sea turtle conservation and management efforts.</p> <p>(iii) sea turtle conservation and management benefits to fishing and coastal communities, with particular reference to</p>	

<p>small-scale and artisanal fisheries.  B. Promotion of the active participation and, where possible, cooperation and engagement of fishing industries, fishing communities and other affected stakeholders.</p>	
<p><b>8. Consideration of other aspects of sea turtle conservation and management</b>  Fishers, research institutions, management authorities and other interested parties dealing with fisheries conservation and management should collaborate with relevant conservation and management bodies, at national, sub-regional and regional level, in the following subject matters:</p> <p>A. Collection and sharing of information on sea turtles relative to:  (i) Biology and ecology (population dynamics, stock identification, behaviour, diet selection, habitats, breeding, nesting, foraging, migration patterns/areas, nursery grounds, etc).  (ii) Sources of mortality other than fisheries.  (iii) Status of sea turtle populations, including human-related threats.</p> <p>B. Improvement and development of conservation and management measures applied throughout the sea turtle life cycle (habitat/ nesting beach protection, enhancement of sea turtle populations).</p> <p>C. Promotion, as appropriate, of participation in regional sea turtle conservation and management arrangements with a view to cooperate on sea turtle conservation and management.</p>	

