



Australian Government
Bureau of Rural Sciences

**Review of International Instruments Relevant to
Ecologically Related Species: updates since the sixth
meeting of the Ecologically Related Species Working
Group**

by

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Discussion paper CCSBT-ERS/0707/10 presented at the Seventh Meeting of
the Ecologically Related Species Working Group of the Commission for the
Conservation of Southern Bluefin Tuna

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Table of Contents

Abstract	2
Introduction	3
The Joint Meeting of Tuna Regional Fisheries Management Organisations in Kobe, Japan, January 22-26, 2007	3
United Nations General Assembly (UNGA) Official Records, Sixty-first Session, 12 September – 22 December 2006	5
The Twenty-seventh Session of UNFAO-COFI in Rome, Italy, 5-9 March 2007	5
Recent Resolutions of relevant Regional Fisheries Management Organisations	6
Indian Ocean Tuna Commission	6
Western and Central Pacific Fisheries Commission	7
International Commission for the Conservation of Atlantic Tunas	9
Reference List	10
Web addresses for the Recommendations, Resolutions and Conservation and Management Measures for each of the RFMOS described in this paper.	10
Appendices	11
Appendix 1 - Meeting of Joint Tuna RFMOs, Kobe, Japan	11
Appendix 2 - United Nations General Assembly	14
Appendix 3 - United Nations Committee on Fisheries	16
Appendix 4 - Indian Ocean Tuna Commission	17
Appendix 5 - Western and Central Pacific Fisheries Commission	21
Appendix 6 - International Commission for the Conservation of Atlantic Tunas	27

Abstract

This paper has been prepared for the seventh meeting of the Commission for the Conservation of Southern Bluefin Tuna's Ecologically Related Species Working Group (ERSWG) as an update to a previous submission which reviewed international instruments relevant to ecologically related species (ERS), particularly data requirements and recommendations for sharks and seabirds (CCSBT-ERS/-6-2/04). It summarises recent international agreements/obligations that are of relevance to the ERSWG, including:

- The Kobe Meeting of Joint Tuna Regional Fisheries Management Organisations (RFMOs) in Kobe, Japan, January 26, 2007, which agreed on a Course of Actions for RFMOs that identifies key areas and challenges to be urgently addressed to improve RFMO performance, including;
 - Improvement, sharing and dissemination of data and stock assessments and all other relevant information in an accurate and timely manner.
 - Implementation of the precautionary approach and an ecosystem-based approach to fisheries management including improved data collection on incidental by-catch and non-target species and establishment of measures to minimize the adverse effect of fishing for highly migratory fish species on ecologically related species, particularly sea turtles, seabirds and sharks.
 - Development of data collection, stock assessment and appropriate management of shark fisheries under the competence of tuna RFMOs.

The Kobe meeting also agreed that the five tuna RFMOs should have their performance reviewed, commencing as soon as practicable. This review would include criteria covering the relevant provisions of international instruments.

- The sixty-first session of the United Nations General Assembly's passed Resolutions (10, 62, 96) that made explicit mention of the impact of fishing (particularly longline techniques) on ERS and encouraged data collection and management measures to address these impacts.
- The twenty-seventh session of United Nations Food and Agriculture Organisation -Committee on Fisheries (UNFAO-COFI), which discussed the implementation of the Code of Conduct for Responsible Fisheries, implementation of the Ecosystem Approach to Fisheries and strengthening RFMOs.
- Recent measures adopted by RFMOs that relate to ERS. In 2006 the Western and Central Pacific Fishery Commission (WCPFC) and the Indian Ocean Tuna Commission (IOTC) adopted binding resolutions/conservation and management measures relating to reducing seabird bycatch in longline fisheries. These included the mandatory use of mitigation measures. The WCPFC resolution recognises the need to use multiple mitigation measures. The WCPFC also adopted a binding resolution on sharks, which includes measures on data collection and ensuring full utilization of retained shark. The IOTC and WCPFC measures for sea turtles are also provided. In 2006, the International Commission for the Conservation of Atlantic Tuna (ICCAT) updated their 2005 resolution on sharks to require annual reporting of progress and implementation.

This paper is intended to assist discussion and progress recommendations by the ERSWG to the Extended Commission for the Conservation of Southern Bluefin Tuna regarding ecologically related species.

Introduction

This paper has been prepared for the seventh meeting of the Commission for the Conservation of Southern Bluefin Tuna Ecologically Related Species Working Group (ERSWG) on the 3-6th July, 2007. It provides an update to Stewardson *et al.*, (2006) presented as a discussion paper (CCSBT-ERS/-6-2/04) at the sixth meeting of the ERSWG in Taiwan, February, 2006. This paper highlights recent international agreements/obligations that are relevant to the management of interactions between fishing activities and ecologically related species (ERS) that were not available in the original document.

The paper reviews the agreements from the Joint Meeting of Tuna Regional Fisheries Management Organisations (RFMOs) in Kobe, Japan (January 22-26, 2007), and the resolutions agreed at the sixty-first meeting of the United Nations General Assembly (UNGA) relating to seabirds, sharks and turtles. The relevant talking points from the twenty-seventh session of United Nations Food and Agriculture Organisation - Committee on Fisheries (UNFAO-COFI) are also presented.

An overview is also provided (with exact text as appendicis) of recent additional measures that address ERS in other RFMOs. These include measures adopted by the Indian Ocean Tuna Commission (IOTC), the Western and Central Pacific Fisheries Commission (WCPFC) and the International Commission for the Conservation of Atlantic Tunas (ICCAT).

This detail is provided to encourage further discussion around the interactions between fishing activities and ERS and the resulting mitigation measures in operation in other RFMOs, with the view to assisting the ERSWG to make recommendations to the Extended Commission for the Conservation of Southern Bluefin Tuna regarding management of interactions with ecologically related species.

The Joint Meeting of Tuna Regional Fisheries Management Organisations in Kobe, Japan, January 22-26, 2007

The Joint Meeting of Tuna Regional Fisheries Management Organisations (RFMOs) in Kobe, Japan, brought together 54 members and co-operating non-members from five tuna RFMOs from around the world. The members and co-operating non-members recognised the need to stop any further decline of depleted stocks and the need to maintain or rebuild tuna stocks to sustainable levels and deal effectively with overfishing, overcapacity and IUU fishing activities. The members and co-operating non-members of the five RFMOs jointly committed to take action to co-operate through respective RFMOs in accordance with their obligations under international law.

It was recognised that there may be different priorities and management pressures amongst the five RFMOs. However, the meeting developed a 'Course of Actions' for greater cooperation on a broad range of issues to increase their effectiveness and efficiency and improve the management of tuna resources. The Course of Actions identifies 14 key areas and challenges to be urgently addressed. There are a number of broad issues that have implications for the management ecologically related species (ERS) that are addressed in the Course of Actions, however the key areas and challenges that are directly relevant are (exert from text):

1. Improvement, sharing and dissemination of data and stock assessments and all other relevant information in an accurate and timely manner including development of research methodologies.

10. Implementation of the precautionary approach and an ecosystem-based approach to fisheries management including improved data collection on incidental by-catch and non-target species and establishment of measures to minimize the adverse effect of fishing for highly migratory fish species on ecologically related species, particularly sea turtles, seabirds and sharks, taking into account the characteristics of each ecosystem and technologies used to minimize adverse effect.

11. Development of data collection, stock assessment and appropriate management of shark fisheries under the competence of tuna RFMOs

The Kobe meeting also agreed that the five tuna RFMOs should have their performance reviewed in accordance with a common methodology and a common set of criteria. The goal of the reviews is to assist the RFMOs in improving their effectiveness and efficiency in fulfilling their mandates. The performance criteria would be based on the common elements of the tuna RFMO charters, best practices of each tuna RFMO and relevant provisions of applicable international instruments. The draft framework and criteria developed by Japan, Australia and the United States of America includes Conservation and Management criteria for ERS, particularly seabirds, sharks and turtles.

At the culmination of the Kobe meeting, participants requested that Japan report the results to the 2007 Food and Agriculture Organisation Committee on Fisheries (FAO-COFI) and that attending RFMO members should implement the Course of Actions from the Kobe meeting at 2007 meetings of the individual RFMOs as a matter of priority.

A full version of the Course of Actions for RFMOs from the Kobe meeting can be found in Appendix 1.

**United Nations General Assembly (UNGA) Official Records, Sixty-first Session,
12 September – 22 December 2006**

Resolutions on Seabirds, Marine Turtles and Sharks

At the sixty-first session of the United Nations General Assembly (UNGA) a number of resolutions were passed that made explicit mention of the impact of fishing (particularly longline techniques) on ERS. Mention was made of the continued losses of seabirds (particularly albatrosses and petrels) as well as other ERS, including sharks and marine turtles, through incidental mortality due to fishing.

Resolution **10** urges States, including those working through RFMOs, to implement in full, the *International Plan of Action for the Conservation and Management of Sharks*. It is recommended that this be done through the “collection of scientific data regarding shark catches and the adoption of conservation and management measures” in order to ensure the long-term sustainable use of sharks. Particular mention is made of the ban on fisheries directed at shark finning and taking measure to maximise the use of dead sharks.

Resolution **62** requests states and RFMOs implement the measures recommended in the *Guidelines to Reduce Sea Turtle Mortality in Fishing Operations* and the *International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries* in order to prevent the decline of these wildlife groups and increase post-release survival. This may be done through the research and development of gear and bait alternatives, the promotion of the use of bycatch mitigation technology, and the promotion and strengthening of data collection programmes to obtain standardized information to develop reliable estimates of the by-catch of these species.

Resolution **96** reiterates the crucial importance of cooperation by States through regional and subregional RFMOs and by other international organizations such as the FAO. This resolution also encourages cooperation with agreements, international plans of action and guidelines related to seabirds, marine turtles and sharks as well as financial and/or technical assistance.

The exact text of these resolutions can be found in Appendix 2.

The Twenty-seventh Session of UNFAO-COFI in Rome, Italy, 5-9 March 2007

Although the final report from the Twenty-seventh Session of the United Nations Food and Agriculture Organisation - Committee on Fisheries (UNFAO-COFI) had not been released upon publication of this paper, the publicly available agenda for that meeting identifies a number of agenda items that addressed the importance of managing the interactions between fisheries and ERS. These included:

- Implementation of the Code of Conduct for Responsible Fisheries and the related International and National Plans of Action;
- Implementing the Ecosystem Approach to Fisheries, including deep-sea fisheries, marine debris and lost and abandoned gear;

- Strengthening Regional Fishery Management Organizations (RFMOs) and their performances including the outcome of the 2007 Tuna RFMOs Meeting.

The inclusion of these agenda items at this meeting indicates the importance of these issues to UNFAO-COFI and its member nations and highlights the importance of addressing these issues at an RFMO level. The UNFAO-COFI also discussed that the FAO, in collaboration with Birdlife International and other relevant organisations should develop best practice guidelines to assist RFMOs and flag States in the implementation of National Plans of Action – Seabirds.

The full agenda for the Twenty-seventh Session of UNFAO-COFI in Rome, Italy, 5-9 March 2007 can be found in Appendix 3.

Recent Resolutions of relevant Regional Fisheries Management Organisations

Indian Ocean Tuna Commission

The Indian Ocean Tuna Commission (IOTC) is an intergovernmental organization that was established to manage tuna and tuna-like species in the Indian Ocean and adjacent seas. The objective of the IOTC is to promote conservation through optimum utilization, encourage and coordinate research, development and transfer of technology, review economic and social aspects and conduct scientific analyses of stocks.

The IOTC decisions are passed in the form of 'resolutions' that are binding on the Commission Contracting Parties and Cooperating non-Contracting Parties (CPCs), unless there is specific objection on the part of the CPCs, or 'recommendations' that are not binding for CPCs, they rely on voluntary adoption.

In 2006 the IOTC agreed to an additional resolution (*Resolution 06/04 On Reducing Incidental Bycatch of Seabirds in Longline Fisheries*) to those detailed in Stewardson *et al.*, (2006). This resolution is an update to *Recommendation 05/09 on incidental mortality of seabirds* that had been adopted in 2005. The change from a recommendation to a resolution means that the measures contained within *Resolution 06/04* are binding for IOTC CPCs.

Resolution 06/04 recognises the need to strengthen mechanisms to protect seabirds in the Indian Ocean and the concern that some species, notably albatross and petrels, are threatened with global extinction. This resolution will see the IOTC, within one year, develop effective mechanisms to enable CPCs to record and exchange data on seabird interactions, collect and provide all available information to the Secretariat on interactions with seabirds; including incidental catches by their fishing vessels. The resolution also commits CPCs to achieving reductions in levels of seabird bycatch across all fishing areas, seasons, and fisheries through the use of effective mitigation measures. All vessels are required to carry and use tori lines when operating south of 30°S and encouraged to use a second tori pole at times of high bird abundance or activity. Observed in the new resolution is the scaling up of language from sentiments such as 'CPC's should' and 'CPC's are encouraged' to 'CPC's shall', making it a requirement that CPC's to adopt the measures described.

Resolution 06/04 does have an exemption to the tori line requirement for surface longline vessels targeting swordfish utilising the American longline system (2) and equipped with a line-throwing device. The resolutions also requires the IOTC to consider and if appropriate, refine the 30°S in relation to tori line use and consider adopting additional measures to address incidental catch of seabirds, including those tested and applied in the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) at its 2007 meeting.

Other IOTC resolutions relevant to ERS are *Resolution 05/05 concerning the conservation of sharks caught in association with fisheries managed by IOTC*, and *Recommendation 05/08 on sea turtles*, adopted in 2005. *Resolution 05/05* was discussed by Stewardson *et al.*, (2006) and therefore will not be explored further as part of this paper. *Recommendation 05/08* was not discussed as part of Stewardson *et al.*, (2006) and will be explored further here.

Recommendation 05/08 on sea turtles, recognises the adoption of the *Guidelines to Reduce Sea Turtle Mortality* at the 26th FAO-COFI Session in March 2005 and acknowledges activities undertaken to conserve marine turtles and their habitats within the framework of the *Indian Ocean South-East Asian Marine Turtle Memorandum of Understanding* (IOSEA MoU). The recommendation encourages CPC's to implement the FAO Guidelines for vessels fishing for tuna and tuna-like species in the IOTC. In addition, CPC's are encouraged to adopt appropriate handling techniques for hooked or entangled turtles and the retention of equipment to do so, minimise the impact of purse seine fishing activities and the use of Fish Aggregation Devices (FADs) and the implementation of appropriate hook design, baiting techniques and fishing practices when longline fishing. The Commission also encourages all CPC's to collect and voluntarily provide all available information to the IOTC Scientific Committee. The recommendation encourages CPC's to coordinate their respective IOTC and IOSEA implementation measures and support developing countries in the implementing of their IOTC and IOSEA measures.

The full text version of these resolutions and recommendation can be found in Appendix 4.

Western and Central Pacific Fisheries Commission

The objective of the Western and Central Pacific Fisheries Commission (WCPFC) is to ensure, through effective management, the long-term conservation and sustainable use of highly migratory fish stocks in the western and central Pacific Ocean. The *Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean* was opened for signature at Honolulu in 2000 and came in force in 2004. The WCPFC is the regional body that represents the Convention.

In the WCPFC 'resolution' describes the non-binding statements and recommendations addressed to Members of the Commission and Cooperating non-Members (CCMs), whereas 'conservation and management measures' describe

binding decisions. The WCPFC has binding conservation and management measures relating to seabirds, sharks and turtles.

In 2006 the WCPFC established a *Conservation and Management Measure to mitigate the impact of fishing for highly migratory fish stocks on seabirds (CMM 2006/02)*. Noting advice from CCAMLR that, together with illegal, unreported and unregulated fishing (IUU), the greatest threat to Southern Ocean seabirds is mortality in longline fisheries in waters adjacent to its Convention Area, the WCPFC introduced *CMM 2006-02*. This requires all CCMs to implement the International Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries and report on this to the WCPFC. The conservation and management measure recognises that seabird mitigation is more effective when multiple mitigation measures are used. The *CMM 2006-02* specifies that vessels shall use at least two mitigation measures in areas south of 30°S and north of 23°N. The measures need to include at least one of the following: side setting with a bird curtain and weighted branch lines, night setting with minimum deck lighting, a tori line or weighted branch lines. For the exact text of these seabird mitigation measures, see Appendix 5.

The WCPFC *CMM 2006/02* also encourages research to further develop and refine mitigation measures and prescribes an annual review to update the suite of prescribed mitigation measures or area of application. The *CMM 2006/02* also requires CCMs to provide the Commission with all available information on interactions with seabirds, to enable the Scientific Committee to estimate seabird mortality and refers to the need to obtain detailed information on seabird interactions and this is linked to the inter-sessional working group for the regional observer programme of the WCPFC.

In 2006 the WCPFC also agreed to the *Conservation and Management Measure for Sharks in the Western and Central Pacific Ocean (CMM 2006/05)* which will enter into force on 1st January 2008 and in the interim be applied as a resolution. This conservation and management measure recognises the ecological and cultural significance of sharks in the Western and Central Pacific Ocean and the FAO *International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks)*. The *CMM 2006/05* establishes 17 individual measures which include: the implementation of the IPOA-Sharks, inclusion of data on shark species in annual catch and effort statistics and that CCMs take measures to require fishers fully utilize retained shark catches. The conservation and management measure requires vessels to have on board fins that total no more than 5% of the weight of sharks onboard, up to the first point of landing or that sharks are landed with fins attached to the carcass or with the corresponding carcass. The effectiveness of the specified measures will be reviewed and the application of additional measures included as appropriate.

These conservation and management measures for seabirds and sharks are the first of their kind for the WCPFC and thus are a notable addition to the measures described in Stewardson *et al.*, (2006).

As sea turtles were not addressed in Stewardson *et al.*, (2006), the *Resolution to Mitigate the Impact of Fishing for Highly Migratory Fish Species on Sea Turtles (2005/04)* is briefly discussed here. In recognition of the adoption of the *Guidelines to*

Reduce Sea Turtle Mortality at the 26th FAO-COFI Session in March 2005 and noting the gains that can be made in the use of circle hooks and sea turtle and/or recovery rates, this resolution describes 12 measures to mitigate the impact of fishing for highly migratory species on sea turtles. These measures include the encouragement of CCMs to implement the FAO Guidelines, the collection and provision of data to the WCPFC relating to interactions between turtles and fishing operations, activities and/or considerations that mitigate the impact of purse seine fisheries on sea turtles and requirements for the carriage of appropriate equipment for the prompt release of turtles caught in or by fishing gear. The resolution also recommends that the development of the regional observer programme considers the need to ensure appropriate information on sea turtle interactions is collected.

The full text version of these conservation and management measures and resolution can be found in Appendix 5.

International Commission for the Conservation of Atlantic Tunas

The International Commission for the Conservation of Atlantic Tunas is responsible for the conservation of tunas and tuna-like species in the Atlantic Ocean and adjacent seas. The organization was established in 1966. After a ratification process, the Convention entered formally into force in 1969. The objective of the ICCAT is to undertake a range of work required for the study and management of tunas and tuna-like fishes in the Atlantic. There is a regular meeting of the Commission annually, along with a number of scientific and stock based meetings each year.

The most recent additions to the management of wildlife bycatch in the ICCAT deals with the management of sharks caught in association with fisheries managed by ICCAT. In addition to the information provided in Stewardson *et al.*, (2006), ICCAT agreed to the (05-05) *Recommendation by ICCAT to amend Recommendation (Rec. 04-01) Concerning the Conservation of Sharks Caught in Association with Fisheries Managed by ICCAT. Recommendation 05-05* requires that CPC's shall annually report on the implementation of 04-01 recommendation and CPC's that have not yet implemented measures related to North Atlantic Short Fin Mako (*Isurus oxyrinchus*) shall do so and report to the Commission.

The full text version of this recommendation can be found in Appendix 6.

Reference List

Stewardson, C., Findlay, J. and Bensley, N. (2006). Review of international instruments relevant to ecologically related species; data requirements and recommendations for sharks and seabirds (CCSBT-ERS/0602/04-Australia). Paper prepared for the Ecologically Related Species Working Group of the CCSBT, Sixth Meeting, Taiwan, 20-23 February 2006. 32pp.

Web addresses for the Recommendations, Resolutions and Conservation and Management Measures for each of the RFMOS described in this paper.

1. The Joint Meeting of Tuna Regional Fisheries Management Organisations in Kobe, Japan, January 22-26, 2007
http://www.iccat.es/Documents/Other/FinalReport_ENG.pdf
2. United Nations General Assembly 61st Session, Resolutions and Decisions
<http://daccessdds.un.org/doc/UNDOC/GEN/N07/295/65/PDF/N0729565.pdf?OpenElement>
3. The Twenty-seventh Session of UNFAO-COFI in Rome, Italy, 5-9 March 2007
<ftp://ftp.fao.org/docrep/fao/meeting/0111/j8725e.pdf>
4. Indian Ocean Tuna Commission
<http://www.iotc.org/English/resolutions.php>
5. Western and Central Pacific Fisheries Commission <http://www.wcpfc.int/>
6. International Commission for the Conservation of Atlantic Tunas
<http://www.iccat.es/RecsRegs.asp>

Appendices

Appendix 1 - Meeting of Joint Tuna RFMOs, Kobe, Japan

Course of Actions for RFMOs from the Kobe Meeting of Joint Tuna RFMOs in Kobe, JAPAN, January 26, 2007.

The assembled members and cooperating non members of the five tuna RFMOs present at the Joint Meeting of Tuna RFMOs, recognizing the critical need to arrest further stock decline in the case of depleted stocks, maintain and rebuild tuna stocks to sustainable levels and deal effectively with overfishing, overcapacity and IUU fishing activities, jointly commit to take urgent actions to co-operate through tuna RFMOs in accordance with their obligations under international law.

While noting that tuna RFMOs have different characteristics, pressures on their individual stocks, and management arrangements, it was agreed that enhanced cooperation among tuna RFMOs on a broad range of issues can increase their effectiveness and efficiency and provide improved management of all tuna stocks.

I. Key areas and challenges

Recognizing that priorities may vary from tuna RFMO to tuna RFMO, the following are identified as key areas and challenges to be urgently addressed through effective cooperation and coordination among the five tuna RFMOs to improve their performance:

1. Improvement, sharing and dissemination of data and stock assessments and all other relevant information in an accurate and timely manner including development of research methodologies
2. Development, where appropriate, and application of equitable and transparent criteria and procedures for allocation of fishing opportunities or level of fishing effort, including provisions to allow for new entrants
3. Controls, including capacity reduction as appropriate, to ensure that actual total catch, fishing effort level and capacity are commensurate with available fishing opportunities in order to ensure resource sustainability of tuna stocks while allowing legitimate fishery development of developing coastal states, particularly small island developing states and territories.
4. Ensuring that management measures are based on the best scientific advice available and consistent with the precautionary approach, particularly, with respect to establishment of effective stock rebuilding measures and other measures to maintain stocks at sustainable levels.
5. Ensuring compliance through establishment of integrated MCS (monitoring, control and surveillance) measures that could include VMS, observers, boarding and inspection schemes, port state controls, market state measures, stronger controls on transshipment, and monitoring of bluefin tuna farming, and the harmonization of those measures across the five tuna RFMOs where appropriate to avoid duplication and increase cost efficiency.
6. Application of penalties and sanctions of adequate severity to deter IUU fishing by both non-members and members.
7. Development and implementation of stronger measures to prevent, deter and eliminate IUU fishing including, mechanisms to identify and quantify IUU activities based on trade and other relevant information, a system to exchange information on IUU fishing among RFMOs and among flag states, port states and market states and coastal states, consolidation of the positive and negative lists as described in section II below, effective control over nationals in accordance with their duties under international law, identification of beneficial ownership and demonstration of "genuine link" and dissemination of relevant information to the public.
8. Establishment and implementation of a system to monitor catches from catching vessels to markets.
9. Reviewing the performance of tuna RFMOs in accordance with ANNEX I
10. Implementation of the precautionary approach and an ecosystem-based approach to fisheries management including improved data collection on incidental by-catch and non-target species and establishment of measures to minimize the adverse effect of fishing for highly migratory fish species on ecologically related species, particularly sea turtles, seabirds and sharks,

taking into account the characteristics of each ecosystem and technologies used to minimize adverse effect.

11. Development of data collection, stock assessment and appropriate management of shark fisheries under the competence of tuna RFMOs.
12. Research and development of techniques to reduce incidental take of juvenile tunas during tuna fisheries, in particular FAD operations.
13. Provision of adequate capacity building assistance, including human resource development, for developing coastal states, particularly small island developing states and territories, towards responsible fishery development, including participation in RFMO and scientific meetings, fisheries data collection and stock assessment and implementation of MCS measures.
14. 14. Enhancement of cooperation among scientists, relevant experts and with other relevant fisheries organizations possibly through organization of symposia or working groups on appropriate topics of common interest. Coordination of timing of annual meetings and scientific meetings with a view to avoiding their overlap as well as allowing an adequate interval between scientific and annual meetings and between proposal submission and annual meetings.

Technical work to cooperate across RFMOs will commence by addressing the following challenges.

1. Harmonization and improvement of the trade tracking programs and, as appropriate, development of catch documentation including tagging systems as required.
2. Creation of a harmonized list of tuna fishing vessels that is as comprehensive as possible (positive list) including use of a permanent unique identifier for each vessel such as an IMO number. The positive list should include support vessels. Creation of a global list of IUU vessels.
3. Harmonization of transshipment control measures
4. Standardization of presentation form of stock assessment results

Follow-up actions

1. Report to 2007 FAO Committee on Fisheries (COFI)
2. Participants request Japan to report the results of this Meeting to the 2007 COFI.
3. Implementation at each RFMO in 2007 Members shall commence implementing the measures foreseen in this Course of Actions at the 2007 annual meeting of each tuna RFMO as a matter of priority, consistent with the respective convention.
4. Establishment of a follow-up mechanism (ANNEX II)
 - (1) Policy level An ad-hoc tuna RFMO Chairs' meeting should be held in January or February 2008 in the United States to discuss follow-up actions by each tuna RFMO. The meeting should be held with the participation of the appropriate representation from the tuna RFMOs secretariats, as well as representation from the FAO.
 - (2) Technical level A technical working group (WG) consisting of appropriate experts from tuna RFMOs is established to consider technical issue 1 in section II of this Course of Actions. The first WG meeting will be held in July 2007 in the United States in conjunction with the ICCAT intersessional meetings and the tuna RFMOs will consider the results of such work during the 2008 annual meetings. The 5 tuna RFMO secretariats will jointly consider the technical issues 2 and 3 in section II on the occasion of the meeting of FAO COFI in 2007. Technical issue 4 will be considered by the scientific chairs of the 5 tuna RFMOs. The results on the 4 technical issues should be reported to the next joint RFMO meeting.
5. Next joint RFMO meeting. The next joint RFMO meeting is expected to be held in January/February 2009 in the European Community. It is desirable to hold the following joint meetings every two years but such frequency of meetings should be subject to a decision by the 2nd joint RFMO meeting.

Attachment on RFMO Performance Review

- The five tuna RFMOs should have reviews of their performance conducted in accordance with a common methodology and a common set of criteria. The goal of the performance reviews shall be to assist the RFMOs, through these evaluations, in improving their effectiveness and efficiency in fulfilling their mandates.
- As decided by each tuna RFMO, the reviews should be conducted by a team of individuals drawn from the RFMO secretariat, members of that RFMO and outside experts, with a view to ensuring objectivity and credibility.
- The results of the performance reviews should be presented in the first instance to the tuna RFMO in question for consideration and possible action. The results of the reviews should also be made public on the respective RFMO website, and may be considered as well at future meetings of the five tuna RFMOs, COFI, and other relevant bodies.
- The first performance reviews should commence as soon as practicable, following the development of a performance review framework through electronic means which is subject to the approval of the tuna RFMOs. The performance standards (criteria) contained in the framework should be based on the common elements of the tuna RFMO charters, best practices of each tuna RFMO and relevant provisions of applicable international instruments.
- Each tuna RFMO should decide on the precise timing of its first performance review and on follow-up performance reviews, with a view to having performance reviews undertaken every 3-5 years.

ANNEX II: Future Work Plan

Appendix 15

Full recognition of the special requirements of developing States, particularly small-island developing States and of territories, including through the provision of assistance.

- To enhance their ability to conserve and manage fish stocks, including through special funds and capacity building assistance, towards *inter alia* collection and verification of data, scientific research and stock assessment and in MCS and enforcement;
- To facilitate their effective participation in the work of tuna RFMOs; and
- To enhance their ability to develop their own fisheries for such stocks, as well as enabling them to participate in, and have access to, high seas fisheries for such stocks.
In establishing conservation and management measures tuna RFMOs must consider the vulnerability and dependence on tuna fisheries of developing States, particularly small-island developing States and territories, and such measures must not directly or indirectly transfer a disproportionate burden on developing States.

Appendix 2 - United Nations General Assembly

Official Records, Sixty-first Session, 12 September – 22 December 2006

Volume I Resolutions

12 September – 22 December 2006

Expressing concern over reports of continued losses of seabirds, particularly albatrosses and petrels, as well as other marine species, including sharks, fin-fish species and marine turtles, as a result of incidental mortality in fishing operations, particularly longline fishing, and other activities, while recognizing considerable efforts to reduce by-catch in longline fishing by States and through various regional fisheries management organizations and arrangements,

62. *Requests States and regional fisheries management organizations and arrangements to urgently implement, as appropriate, the measures recommended in the Guidelines to Reduce Sea Turtle Mortality in Fishing Operations and the International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries of the Food and Agriculture Organization of the United Nations in order to prevent the decline of sea turtles and seabird populations by reducing bycatch and increasing post-release survival in their fisheries, including through research and development of gear and bait alternatives, promoting the use of available by-catch mitigation technology, and promotion and strengthening of data-collection programmes to obtain standardized information to develop reliable estimates of the by-catch of these species;*

96. *Reiterates the crucial importance of cooperation by States directly or, as appropriate, through the relevant regional and subregional organizations, and by other international organizations, including the Food and Agriculture Organization of the United Nations through its FishCode programme, including through financial and/or technical assistance, in accordance with the Agreement, the Compliance Agreement, the Code, the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, the International Plan of Action for the Conservation and Management of Sharks, the International Plan of Action for the Management of Fishing Capacity, the International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries, and the Guidelines to Reduce Sea Turtle Mortality in Fishing Operations of the Food and Agriculture Organization of the United Nations, to increase the capacity of developing States to achieve the goals and implement the actions called for in the present resolution;*

Recognizing further the economic and cultural importance of sharks in many countries, the biological importance of sharks in the marine ecosystem, the vulnerability of certain shark species to overexploitation, some of which are threatened with extinction, and the need for measures to promote the long-term sustainability of shark populations and fisheries, and the relevance of the International Plan of Action for the Conservation and Management of Sharks, adopted by the Food and Agriculture Organization of the United Nations in 1999, in providing development guidance of such measures,

Reaffirming its support for the initiative of the Food and Agriculture Organization of the United Nations and relevant regional and subregional fisheries management organizations and arrangements on the conservation and management of sharks, while noting with concern that only a small number of countries have implemented the International Plan of Action for the Conservation and Management of Sharks,

Expressing concern over reports of continued losses of seabirds, particularly albatrosses and petrels, as well as other marine species, including sharks, fin-fish species and marine turtles, as a result of incidental mortality in fishing operations, particularly longline fishing, and other activities, while recognizing considerable efforts to reduce by-catch in longline fishing by States and through various regional fisheries management organizations and arrangements,

10. *Urges States, including those working through subregional or regional fisheries management organizations and arrangements, to implement fully the International Plan of Action for the Conservation and Management of Sharks,*

notably through the collection of scientific data regarding shark catches and the adoption of conservation and management measures, particularly where shark catches from directed and non-directed fisheries have a significant impact on vulnerable or threatened shark stocks, in order to ensure the conservation and management of sharks and their long-term sustainable use, including by banning directed shark fisheries conducted solely for the purpose of harvesting shark fins and by taking measures for other fisheries to minimize waste and discards from shark catches, and to encourage the full use of dead sharks;

Appendix 3 - United Nations Committee on Fisheries

Agenda-COMMITTEE ON FISHERIES Twenty-seventh Session Rome, Italy, 5 - 9 March 2007

Provisional Agenda and Timetable

Monday, 5 March 2007

Morning: 09.30 hours

1. Opening of the Session¹
2. Adoption of the Agenda and arrangements for the Session
3. Election of the Chairperson and Vice-Chairpersons, and designation of Drafting Committee: *for decision*
4. Progress in the Implementation of the Code of Conduct for Responsible Fisheries, Related International Plans of Action and Strategy

Afternoon: 14.30 hours

4. Continued

Tuesday, 6 March 2007

Morning: 09.00 hours

5. Rehabilitation and Reconstruction of Livelihoods in the Fisheries and Aquaculture Sector in Countries affected by the Tsunami in 2004
FAO will make a presentation of the State of World Fisheries and Aquaculture (SOFIA) 2006 before the official opening of the Session.

Afternoon: 14.30 hours

6. Decisions and Recommendations of the Tenth Session of the COFI Sub-Committee on Fish Trade
7. Decisions and Recommendations of the Third Session of the COFI Sub-Committee on Aquaculture

Wednesday, 7 March 2007

Morning: 09.00 hours

8. Social issues in small-scale fisheries
9. Combating Illegal, Unreported and Unregulated (IUU) fishing through monitoring, control and surveillance, port States measures and other means

Afternoon: 14.30 hours

10. Implementing the Ecosystem Approach to Fisheries, including deep-sea fisheries, marine debris and lost and abandoned gear
11. Strengthening Regional Fishery Management Organizations (RFMOs) and their performances including the outcome of the 2007 Tuna RFMOs Meeting

Thursday, 8 March 2007

Morning: 09.00 hours

12. FAO's Programme of Work in Fisheries and Aquaculture

Afternoon: 14.30 hours

12. 12 Continued
13. Any other matters
14. 14 Date and Place of the next Session

Friday, 9 March 2007

Morning:

Free

Afternoon: 14.30 hours

15. Adoption of the Report

Appendix 4 - Indian Ocean Tuna Commission

Resolution 06/04. On Reducing Incidental Bycatch of Seabirds in Longline Fisheries

RECALLING *Recommendation 05/09 On Incidental Mortality of Seabirds*;

RECOGNISING the need to strengthen mechanisms to protect seabirds in the Indian Ocean;

TAKING INTO ACCOUNT the United Nations Food and Agriculture Organisation (FAO) International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds), and the IOTC Working Party on Bycatch objectives;

ACKNOWLEDGING that to date some Contracting Parties and Cooperating non-Contracting Parties (hereinafter referred to as "CPCs") have identified the need for, and have either completed or are near finalising, their National Plan of Action on Seabirds;

RECOGNISING the concern that some species of seabirds, notably albatross and petrels, are threatened with global extinction;

NOTING that the Agreement on the Conservation of Albatrosses and Petrels, which opened for signatures at Canberra on 19 June 2001, has entered into force;

NOTING that the ultimate aim of the IOTC and the CPCs is to achieve a zero bycatch of seabirds, especially threatened albatross and petrel species, in longline fisheries;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. The Commission shall, within a year, develop effective mechanisms to enable CPCs to record and exchange data on seabird interactions, including regular reporting to the Commission, and seek agreement to implement all mechanisms as soon as possible thereafter.
2. CPCs shall collect and provide all available information to the Secretariat on interactions with seabirds, including incidental catches by their fishing vessels.
3. CPCs shall seek to achieve reductions in levels of seabird bycatch across all fishing areas, seasons, and fisheries through the use of effective mitigation measures.
4. All vessels fishing south of 30°S shall carry and use bird-scaring lines (tori poles):
 - Tori poles shall be in accordance with agreed tori pole design and deployment guidelines (provided for in Annex 1);
 - Tori lines are to be deployed prior to longlines entering the water at all times south of 30°S;
 - Where practical, vessels are encouraged to use a second tori pole and bird-scaring line at times of high bird abundance or activity;
 - Back-up tori lines shall be carried by all vessels and be ready for immediate use.
5. Surface longline vessels, whilst targeting swordfish, utilising the "American longline system"² and equipped with a line-throwing device, shall be exempted from the requirements of paragraph 4 of this Resolution.
6. The Commission shall, upon receipt of information from the Scientific Committee, consider, and if necessary, refine, the area of application of the mitigation measures specified in paragraph 4.
7. The Commission shall consider adopting additional measures for the mitigation of any incidental catch of seabirds (including those applied and tested by the Convention on the Conservation of Antarctic Marine Living Resources) at its annual meeting in 2007.

**Recommendation 05/09. On incidental mortality of seabirds
(Recommendation adopted in 2005)**

The Indian Ocean Tuna Commission (IOTC),

TAKING INTO ACCOUNT the FAO International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries;

RECOGNISING the need to evaluate the incidental mortality of seabirds during longline fishing operations for tunas and tuna-like species;

NOTING that fisheries other than longline fisheries targeting tuna and tuna-like species may also contribute to the incidental mortality of seabirds;

FURTHER NOTING that other factors, such as swallowing marine debris, are also responsible for seabird mortality.

RECOMMENDS, in accordance with paragraph 8 of Article IX of the Agreement, that:

1. Contracting Parties and Cooperating non-Contracting Parties (hereinafter referred to as "CPCs") should inform the Scientific Committee, if appropriate, and the Commission of the status of their National Plans of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries. The Commission should urge CPCs to implement, if appropriate, the International Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries if they have not yet done so.
2. CPCs should be encouraged to collect and voluntarily provide the Scientific Committee with all available information on interactions with seabirds, including incidental catches in all fisheries under the purview of IOTC.
3. When feasible and appropriate, the Scientific Committee should present to the Commission an assessment of the impact of incidental catch of seabirds resulting from the activities of all the vessels fishing for tunas and tuna-like species, in the IOTC Area.
4. CPCs are encouraged to support developing countries in their implementing the FAO International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries.

Resolution 05/05 concerning the conservation of sharks caught in association with fisheries managed by IOTC (Resolution adopted in 2005)

The Indian Ocean Tuna Commission (IOTC):

RECALLING that the United Nations Food and Agriculture Organisation (FAO) International Plan of Action of Sharks calls on States, within the framework of their respective competencies and consistent with international law, to cooperate through regional fisheries organisations with a view to ensuring the sustainability of shark stocks as well as to adopt a National Plan of Action for the conservation and management of sharks (defined as elasmobranchs);

CONSIDERING that many sharks are part of pelagic ecosystems in the IOTC area, and that tunas and tuna-like species are captured in fisheries targeting sharks;

RECOGNISING the need to collect data on catch, effort, discards and trade, as well as information on the biological parameters of many species, in order to conserve and manage sharks;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement that:

1. Contracting Parties, Cooperating non-Contracting Parties (CPCs) shall annually report data for catches of sharks, in accordance with IOTC data reporting procedures, including available historical data.

2. In 2006 the Scientific Committee (in collaboration with the Working Party on Bycatch) provide preliminary advice on the stock status of key shark species and propose a research plan and timeline for a comprehensive assessment of these stocks.
3. CPCs shall take the necessary measures to require that their fishermen fully utilise their entire catches of sharks. Full utilisation is defined as retention by the fishing vessel of all parts of the shark excepting head, guts and skins, to the point of first landing.
4. CPCs shall require their vessels to not have onboard fins that total more than 5 percent of the weight of sharks onboard, up to the first point of landing. CPCs that currently do not require fins and carcasses to be offloaded together at the point of first landing shall take the necessary measures to ensure compliance with the 5 percent ratio through certification, monitoring by an observer, or other appropriate measures.
5. The ratio of fin-to-body weight of sharks described in paragraph 4 shall be reviewed by the scientific committee and reported back to the Commission in 2006 for revision, if necessary.
6. Fishing vessels are prohibited from retaining on board, transshipping or landing any fins harvested in contravention of this Resolution.
7. In fisheries that are not directed at sharks, CPCs shall encourage the release of live sharks, especially juveniles and pregnant sharks, to the extent possible, that are caught incidentally and are not used for food and/or subsistence.
8. CPCs shall, where possible, undertake research to identify ways to make fishing gears more selective (such as the implications of avoiding the use of wire traces).
9. CPCs shall, where possible, conduct research to identify shark nursery areas.
10. The Commission shall consider appropriate assistance to developing CPCs for the collection of data on their shark catches.
11. This resolution applies only to sharks caught in association with fisheries managed by the IOTC.
12. This provision to apply without prejudice to many artisanal fisheries which traditionally do not discard carcasses.

Recommendation 05/08 On sea turtles (Recommendation adopted in 2005)

The Indian Ocean Tuna Commission (IOTC),

NOTING the need to improve the collection of scientific data regarding all sources of mortality for sea turtle populations, including but not limited to, data from fisheries within the IOTC Area to enhance the proper conservation of sea turtles;

RECOGNISING that at the 26th FAO-COFI Session in March 2005, the Guidelines to Reduce Sea Turtle Mortality in Fishing Operation (hereinafter referred to as "the Guidelines") was adopted,

ACKNOWLEDGING the activities undertaken to conserve marine turtles and the habitats on which they depend, within the framework of the Indian Ocean – South-East Asian Marine Turtle Memorandum of Understanding (IOSEA MoU); noting the decision of the 22 IOSEA Signatory States to establish a voluntary reporting mechanism to monitor implementation of the Guidelines; and noting further IOSEA MoU Resolution 3.1 regarding collaboration with IOTC on marine turtle by-catch issues;

RECOMMENDS, in accordance with paragraph 8 of Article IX of the IOTC Agreement, that:

1. The Commission encourages Contracting Parties and Cooperating non-Contracting Parties (hereinafter referred to as "CPCs") to implement the Guidelines, inter alia, the necessary measures for vessels fishing for tuna and tuna-like species in the IOTC Area to mitigate the impact of fishing operations on sea turtles:
 - A. General**
 - i) Requirements for appropriate handling, including resuscitation or prompt release of all bycaught or incidentally caught (hooked or entangled) sea turtles.
 - ii) Retention and use of necessary equipment for appropriate release of bycaught or incidentally caught sea turtles.
 - B. Purse seine**
 - i) Avoid encirclement of sea turtles to the extent practical.
 - ii) Develop and implement appropriate gear specifications to minimize bycatch of sea turtles.
 - iii) If encircled or entangled, take all possible measures to safely release sea turtles.

iv) 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.

C. Longline

- 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.
 - ii) 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.
2. The Commission encourages CPCs to collect and voluntarily provide the Scientific Committee with all available information on interactions with sea turtles in fisheries targeting the species covered by the IOTC Agreement, including successful mitigation measures, incidental catches and other impacts on sea turtles in the IOTC Area, such as the deterioration of nesting sites and swallowing of marine debris.
 3. Encourages CPCs to coordinate their respective IOTC and IOSEA implementation measures, where applicable; and urges the respective secretariats to intensify their collaboration and exchange of information in this area.
 4. CPCs are encouraged to support developing countries in their implementing the Guidelines.

Appendix 5 - Western and Central Pacific Fisheries Commission

THIRD REGULAR SESSION, Apia, Samoa 11-15 December 2006 CONSERVATION AND MANAGEMENT MEASURE TO MITIGATE THE IMPACT OF FISHING FOR HIGHLY MIGRATORY FISH STOCKS ON SEABIRDS

Conservation and Management Measure 2006-02

The Commission For The Conservation And Management Of Highly Migratory Fish Stocks In the Western And Central Pacific Ocean

Concerned that some seabird species, notably albatrosses and petrels, are threatened with global extinction.

Noting advice from the Commission for the Conservation of Antarctic Marine Living Resources that together with illegal, unreported and unregulated fishing, the greatest threat to Southern Ocean seabirds is mortality in longline fisheries in waters adjacent to its Convention Area.

Noting scientific research into mitigation of seabird bycatch in surface longline fisheries has showed that the effectiveness of various measures varies greatly depending on the vessel type, season, and seabird species assemblage present.

Noting the advice of the Scientific Committee that combinations of mitigation measures are essential for effective reduction of seabird bycatch.

Resolves as follows:

1. Commission Members, Cooperating Non Members and participating Territories (CCMs) shall, to the extent possible, implement the International Plan of Action for Reducing Incidental Catches of Seabirds in Longline fisheries (IPOA-Seabirds) if they have not already done so.
2. CCMs shall report to the Commission on their implementation of the IPOA-Seabirds, including, as appropriate, the status of their National Plans of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries.

Adopts, in accordance with Article 5 (e) and 10(i)(c) of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean the Commission the following measure to address seabird by-catch:

1. CCMs shall require their longline vessels to use at least two of the mitigation measures in Table 1, including at least one from Column A in areas South of 30 degrees South and North of 23 degrees North.

Table 1: Mitigation measures

<i>Column A</i>	<i>Column B</i>
<i>Side setting with a bird curtain and weighted branch lines¹</i>	<i>Tori line²</i>
<i>Night setting with minimum deck lighting</i>	<i>Weighted branch lines</i>
<i>Tori line</i>	<i>Blue-dyed bait</i>
<i>Weighted branch lines</i>	<i>Deep setting line shooter</i>
	<i>Underwater setting chute</i>
	<i>Management of offal discharge</i>

2. In other areas, where necessary, CCMs are encouraged to employ one or more of the seabird mitigation measures listed in Table 1.

¹ This measure can only be applied in the area north of 23 degrees north until research establishes the utility of this measure in waters south of 30 degrees south. If using side setting with a bird curtain and weighted branch lines from column A this will be counted as two mitigation measures.

² If tori line is selected from both Column A and Column B this equates to simultaneously using two (i.e. paired) tori lines.

3. The Commission will at its 2007 Annual Meeting adopt minimum technical specifications for the mitigation measures, based on the advice and recommendations of SC3 and TCC3.
4. Guidelines for measures described in Column A, until future research suggests otherwise, are provided in Attachment 1.
5. Guidelines for technical specifications when applying mitigation measures in Column B are provided in Attachment 2.
6. For research and reporting purposes, CCMs that fish in the area south of 30°S and north of 23°N shall submit, to the Commission by 30 November 2007, the specifications of the mitigation measures listed in Columns A and B, that they will require their vessels to employ.
7. CCMs are encouraged to undertake research to further develop and refine measures to mitigate seabird bycatch including mitigation measures for use during the hauling process. Research should be undertaken in the fisheries and areas to which the measure will be used.
8. The SC and TCC will annually review any new information on new or existing mitigation measures or on seabird interactions from observer or other monitoring programmes. Where necessary an updated suite of mitigation measures, specifications for mitigation measures, or recommendations for areas of application will then be provided to the Commission for its consideration and review as appropriate.
9. CCMs are encouraged to adopt measures aimed at ensuring that seabirds captured alive during longlining are released alive and in as good condition as possible and that wherever possible hooks are removed without jeopardizing the life of the seabird concerned.
10. The inter-sessional working group for the regional observer programme (IWG-ROP) will take into account the need to obtain detailed information on seabird interactions to allow analysis of the effects of fisheries on seabirds and evaluation of the effectiveness of by-catch mitigation measures.
11. CCMs shall provide the Commission with all available information on interactions with seabirds, including by-catches and details of species, to enable the Scientific Committee to estimate seabird mortality in all fisheries to which the WCPF Convention applies.
12. Paragraph 1 of this Conservation and Management Measure shall be implemented by CCMs in the following manner:
 - In areas south of 30 degrees South, no later than 1st January 2008 in relation to large scale longline vessels of 24 meters or more in overall length and no later than 31 January 2009 in relation to smaller longline vessels of less than 24 meters in overall length.
 - In areas North of 23 degrees North, and in relation to large scale longline vessels of 24 meters or more in overall length, no later than 30 June 2008.
13. CCMs shall as of 1 January 2007 initiate a process to ensure that vessels flying their flag will be able to comply with the provisions of paragraph 1 within the deadlines referred to in paragraph 12.
14. This Conservation and Management measure replaces Resolution 2005-01 which is hereby repealed.

Attachment 1: Guidelines for Column A mitigation measures.

Tori Lines:

Minimum length: 100m

Minimum aerial coverage: 90m

Must be attached so that the aerial extent is maintained over the sinking baited hooks.

Streamers must be less than 5m apart and be using swivels.

Streamers must be long enough so that they are as close to the water as possible.

If the tori line is less than 150m in length, must have a drogue attached to the end that will create enough drag to meet the 90 meter coverage requirement.

Side setting with bird curtain and weighted branch lines:

Mainline deployed from port or starboard side as far from stern as practicable (at least 1m), and if mainline shooter is used, must be mounted at least 1m forward of the stern.

When seabirds are present the gear must ensure mainline is deployed slack so that baited hooks remain submerged.

Bird curtain must be employed:

Pole aft of line shooter at least 3m long;

Min of 3 main streamers attached to upper 2m of pole;

Main streamer diameter min 20mm;
Branch streamers attached to end of each main streamer long enough to drag on water (no wind) –
min diameter 10 mm.

Night setting:

No setting between local sunrise and one hour after local sunset; and
Deck lighting to be kept to a minimum, noting requirements for safety and navigation.

Weighted branch lines:

Weights attached to all branch lines:
minimum of 45 grams weight attached to all branch lines;
less than 60 grams weight must be within 1 meter of the hook;
greater than 60 grams and less than 98 grams must be within 3.5 meters of the hook; and
greater than 98 grams must be within 4 meters of the hook.

Attachment 2: Guidelines for Column B mitigation measures.

Weighted branch lines:

Weights attached to all branch lines:
minimum of 45 grams weight attached to all branch lines;
less than 60 grams weight must be within 1 meter of the hook;
greater than 60 grams and less than 98 grams must be within 3.5 meters of the hook; and
greater than 98 grams must be within 4 meters of the hook.

Blue dyed bait:

The Commission Secretariat shall distribute a standardized colour placard.
All bait must be dyed to the shade shown in the placard.

Management of Offal Discharge:

Either:

No offal discharge during setting or hauling; or
Strategic offal discharge from the opposite side of the boat to setting/hauling to actively encourage
birds away from baited hooks.

**THIRD REGULAR SESSION (Apia, Samoa 11-15 December 2006)
CONSERVATION AND MANAGEMENT MEASURE FOR SHARKS IN THE
WESTERN AND CENTRAL PACIFIC OCEAN**

Conservation and Management Measure 2006-05

The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the
Western and Central Pacific Ocean;

In accordance with the Convention on the Conservation and Management of Highly Migratory Fish
Stocks in the Western and Central Pacific Ocean;

Recognizing the ecological and cultural significance of sharks in the western and central Pacific
Ocean (WCPO);

Recalling that the United Nations Food and Agriculture Organization (FAO) International Plan of Action
for the Conservation and Management of Sharks calls on FAO members, within the framework of their
respective competencies and consistent with international law, to cooperate through regional fisheries
organizations with a view to ensuring the sustainability of shark stocks as well as to adopt a National

Plan of Action for the conservation and management of sharks;

Recognizing the need to collect data on catch, effort, discards, and trade, as well as information on the
biological parameters of many species, as part of shark conservation and management;

Recognizing further that certain species of pelagic sharks, such as basking shark and great white shark, have been listed on Appendix II of the Convention on International Trade and Endangered Species of Wild Fauna and Flora (CITES).

Resolves as follows:

1. Commission Members, Cooperating non-Members, and participating Territories (CCMs) shall implement the FAO International Plan of Action for the Conservation and Management of Sharks.
2. CCMs shall advise the Commission annually on their implementation of the IPOA Sharks, including, as appropriate, results of their assessment of the need for a National Plan of Action and/or the status of their National Plans of Action for the Conservation and Management of Sharks.
3. National Plans of Action or other relevant policies for sharks should include measures to minimize waste and discards from shark catches and encourage the live release of incidental catches of sharks.
4. Each CCM shall include key shark species, to be identified by the Scientific Committee, in their annual reporting to the Commission of annual catches and catch and fishing effort statistics by gear type, including available historical data, in accordance with the WCPF Convention and agreed reporting procedures;
5. The Commission shall consider appropriate assistance to developing CCMs for the implementation of the IPOA and collection of data on shark catches.

And adopts, in accordance with Articles 5 and 10 of the Convention, that:

6. CCMs shall take measures necessary to require that their fishers fully utilize any retained catches of sharks. Full utilization is defined as retention by the fishing vessel of all parts of the shark excepting head, guts, and skins, to the point of first landing or transshipment;
7. CCMs shall require their vessels to have on board fins that total no more than 5% of the weight of sharks onboard, up to the first point of landing. CCMs that currently do not require fins and carcasses to be offloaded together at the point of first landing shall take the necessary measures to ensure compliance with the 5% ratio through certification, monitoring by an observer, or other appropriate measures. CCMs may alternatively require that their vessels land sharks with fins attached to the carcass or that fins not be landed without the corresponding carcass.
8. The specification of the ratio of fin weight to shark weight described in paragraph 7 above shall be reviewed by the Scientific Committee in 2007 (and occasionally there after) and the Committee will recommend any appropriate revisions to the Commission for its consideration.
9. CCMs shall take measures necessary to require fishing vessels are prohibited from retaining on board, transship, landing, or trade in any fins harvested in contravention of this Conservation and Management Measure;
10. In fisheries for tunas and tuna-like species that are not directed at sharks, CCMs shall take measures to encourage the release of live sharks that are caught incidentally and are not used for food or other purpose.
11. Nothing in this measure shall prejudice the sovereign rights of coastal States to apply alternative measures for the purpose of exploring, exploiting, conserving and managing sharks, including any national plan of action for the conservation and management of sharks, within areas under their national jurisdiction.
12. CCMs shall advise the Commission annually on the implementation of this conservation measure and any alternative measures adopted under paragraph 11 above.
13. On the basis of advice from the SC, the TCC and the Commission, CCMs shall review the implementation and effectiveness of this measure, and any alternative measures applied under paragraph 11 above, and shall consider the application of additional measures for the management of shark stocks in the Convention Area, as appropriate.
14. CCMs are encouraged to co-operate in the development of stock assessments for key shark species within the Convention Area.
15. This decision shall apply to sharks caught in association with fisheries managed under the WCPF Convention, and to sharks listed in Annex 1 of the 1982 Convention occurring in the Convention Area.
16. At the initial stage this Measure shall apply to vessels greater than 24m overall length.

17. This Measure shall enter into force on 1st January 2008 and in the interim shall be applied as a resolution.

RESOLUTION TO MITIGATE THE IMPACT OF FISHING FOR HIGHLY MIGRATORY FISH SPECIES ON SEA TURTLES 2005-04

The Commission For The Conservation And Management Of Highly Migratory Fish Stocks In The Western And Central Pacific Ocean

In accordance with the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean:

Recognizing the ecological and cultural significance of all species of sea turtles in the Western and Central Pacific Ocean (WCPO);

Recognizing that the FAO adopted Guidelines to Reduce Sea Turtle Mortality in Fishing Operations at its Twenty-sixth Session of the Committee on Fisheries, held in March 2005, and recommended their implementation by regional fisheries bodies and management organizations;

Noting that the recent international scientific studies on circle hooks show a statistically significant decrease in sea turtle bycatch when such hooks are used in shallow set pelagic longline fishing but that studies and trials continue in different geographic areas;

Further noting that scientific studies indicate that, with the use of circle hooks, the hooking location can lead to a decrease in post-release mortality of incidentally caught species;

Taking into account Article 5 of the WCPF Convention, resolves as follows:

1. Commission Members, Cooperating non-Members, and participating Territories (called CCMs) shall, as appropriate, implement the FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations (the Guidelines) in order to reduce the incidental catch of sea turtles and to ensure the safe handling of all turtles that are captured, in order to improve their survivability.
2. The WCPFC shall encourage CCMs to collect, and provide to the WCPFC, all available information on interactions with sea turtles in fisheries managed under the WCPF Convention.
3. The Commission encourages CCMs to enhance the implementation of their respective turtle mitigation measures that are already in place (using best available scientific information on mitigation techniques) and urges them to foster collaboration with other CCMs in the exchange of information in this area.
4. The Commission urges CCMs to require that purse seine vessels flying their flags:
 - i. Avoid encirclement of sea turtles to the extent practicable and, if encircled or entangled, take all practicable measures to safely release sea turtles.
 - ii. Take all reasonable efforts whenever a sea turtle is sighted in the net to rescue the turtle before it becomes entangled in the net, including if necessary, the deployment of a speedboat.
 - iii. Stop net roll, if a turtle is entangled in the net, as soon as the turtle comes out of the water and, to the extent practicable, assist the recovery of the turtle before returning it to the water.
 - iv. Take necessary measures to monitor fish aggregating devices (FADs) to the extent practicable to release any sea turtles that become entangled and consider FAD designs and use that reduce the likelihood of sea turtle entanglement.
5. The Commission urges CCMs to:
 - i. Undertake research trials of appropriate-size circle hooks in commercial pelagic longline fisheries.
 - ii. Undertake research and trials on the use of circle hooks in recreational and artisanal fisheries;
 - iii. Require longline vessels flying their flags to carry on board and, when sea turtle interactions occur, employ the necessary equipment (e.g. de-hookers, line cutters, and scoop nets) for the prompt release of incidentally caught sea turtles.

6. The Commission shall consider measures related to the use of circle hook gear technology in longline fisheries at its annual Session in 2006, taking into account the results of research and trials.
7. The Commission urges cooperation with the Inter-American Tropical Tuna Commission in order to share data on sea turtle bycatch and to develop and apply compatible bycatch reduction measures given the migration patterns of many species of sea turtles.
8. As the Commission develops its regional observer program and considers improving observer coverage in the Convention Area, existing observer programs should be reviewed to ensure that the appropriate information on sea turtle interactions is being collected (e.g. species identification, fate and condition at release, relevant biological information and gear configuration).
9. The Commission decides that resources available in the Special Requirements Fund may be used to assist developing State Members and territories in implementing the FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations.
10. The Commission encourages CCMs to contribute to the Special Requirements Fund to support eligible small-island developing States, territories, and possessions in implementing this resolution, or to do so through bilateral arrangements.
11. Beginning in 2006, CCMs shall include in their Annual Report to the Commission (Part II) a report on the steps taken to implement this resolution.
12. The Commission, through the Technical and Compliance Committee, shall monitor the progress of CCMs in applying this resolution and develop relevant strategies for the further consideration of the Commission in 2007.

Appendix 6 - International Commission for the Conservation of Atlantic Tunas

International Commission for the Conservation of Atlantic Tuna's

[05-05] RECOMMENDATION BY ICCAT TO AMEND RECOMMENDATION [REC. 04-10] CONCERNING THE CONSERVATION OF SHARKS CAUGHT IN ASSOCIATION WITH FISHERIES MANAGED BY ICCAT

RECALLING that the SCRS concluded that measures to reduce fishing mortality are necessary to improve the status of the North Atlantic shortfin mako shark population;

THE INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS (ICCAT) RECOMMENDS THAT:

In point 7 of the 2004 *Recommendation by ICCAT Concerning the Conservation of Sharks Caught in Association with Fisheries Managed by ICCAT* [Rec. 04-10], a new paragraph is added:

"Contracting Parties, Cooperating non-Contracting Parties, Entities or Fishing Entities (CPCs) shall annually report on their implementation of this Recommendation. CPCs that have not yet implemented this recommendation to reduce North Atlantic shortfin mako shark (*Isurus oxyrinchus*) mortality, shall implement it and report to the Commission."

2004-10 RECOMMENDATION BY ICCAT CONCERNING THE CONSERVATION OF SHARKS CAUGHT IN ASSOCIATION WITH FISHERIES MANAGED BY ICCAT

RECALLING that the United Nations Food and Agriculture Organization (FAO) International Plan of Action for Sharks calls on States, within the framework of their respective competencies and consistent with international law, to cooperate through regional fisheries organizations with a view to ensuring the sustainability of shark stocks as well as to adopt a National Plan of Action for the conservation and management of sharks;

CONSIDERING that many sharks are part of pelagic ecosystems in the Convention area, and that tunas and tuna-like species are captured in fisheries targeting sharks;

RECOGNIZING the need to collect data on catch, effort, discards, and trade, as well as information on the biological parameters of many species, in order to conserve and manage sharks;

THE INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS (ICCAT) RECOMMENDS THAT:

1. Contracting Parties, Cooperating non-Contracting Parties, Entities or Fishing Entities (CPCs) shall annually report Task I and Task II data for catches of sharks, in accordance with ICCAT data reporting procedures, including available historical data.
2. CPCs shall take the necessary measures to require that their fishermen fully utilize their entire catches of sharks. Full utilization is defined as retention by the fishing vessel of all parts of the shark excepting head, guts and skins, to the point of first landing.
3. CPCs shall require their vessels to not have onboard fins that total more than 5% of the weight of sharks onboard, up to the first point of landing. CPCs that currently do not require fins and carcasses to be offloaded together at the point of first landing shall take the necessary measures to ensure compliance with the 5% ratio through certification, monitoring by an observer, or other appropriate measures.
4. The ratio of fin-to-body weight of sharks described in paragraph 3 shall be reviewed by the SCRS and reported back to the Commission in 2005 for revision, if necessary.
5. Fishing vessels are prohibited from retaining on board, transshipping or landing any fins harvested in contravention of this Recommendation.
6. In fisheries that are not directed at sharks, CPCs shall encourage the release of live sharks, especially juveniles, to the extent possible, that are caught incidentally and are not used for food and/or subsistence.

7. In 2005, the SCRS shall review the assessment of shortfin mako sharks (*Isurus oxyrinchus*) and recommend management alternatives for consideration by the Commission, and reassess blue shark (*Prionaca glauca*) and shortfin mako no later than 2007.
8. CPCs shall, where possible, undertake research to identify ways to make fishing gears more selective.
9. CPCs shall, where possible, conduct research to identify shark nursery areas.
10. The Commission shall consider appropriate assistance to developing CPCs for the collection of data on their shark catches.
11. This recommendation applies only to sharks caught in association with fisheries managed by ICCAT.

Executive Summary on bycatch (10/2005):

Recommendations reported by the Sub-Committee on By-catches in 2005.

- i) The Sub-Committee recommends that the Commission hire a *By-catch Coordinator* at the Secretariat and to encourage Contracting Parties and Cooperating non-Contracting Parties, Entities or Fishing Entities to enhance their scientific delegations to include experts in seabird and turtle biology and population dynamics
- ii) Given that improvements in the ICCAT shark database can only be achieved if the Parties *increase infrastructure investment* into monitoring the overall catch composition and disposition of the overall catch of **sharks and other by-catch species**, the Sub-Committee recommends that, should the Commission wish improved advice on the status of these and **other by-catch species**, larger research investment should be made. This investment should include, as a minimum, *participation in Working Group meetings by national scientists* who have knowledge of the fleets impacting on these species.
- iii) The Sub-Committee recommends that Contracting Parties and Cooperating non-Contracting Parties, Entities or Fishing Entities continue to develop and *conduct observer programs* for their own fleets to collect accurate data on shark and other catches on species, including discards. It is important to provide a basis for quantifying by-catch levels.
- iv) The Commission has started to take measures to *reduce fishing capacity*, which may indirectly help reduce the magnitude of by-catch species such as sharks, turtles and birds. The Sub-Committee recommends that mitigation measures which have been demonstrated to reduce or eliminate interactions of by-catch species with tuna fisheries should be instituted by CPCs. The Sub-Committee also encourages further research into fishing gear modifications that can lead to reductions in by-catch. The following is a list of additional recommendations pertinent to the conduct of the Sub-Committee's business:
- v) The Sub-Committee recommends that data reporting *include total catches* (landings and discards).
- vi) Due to the uncertainties in the basic catch information, more *research into stock assessment methodologies that fully utilise the available data, including the tagging data*, such as proposed in Col. Vol. Sci. Pap. ICCAT, (58(3): 1073-1086 (2005) is recommended. These efforts should make use of the all of the available tagging study results. The Sub-Committee noted that the available shark tagging data from several Parties is already held at the Secretariat, but that results of one large-scale tagging study (Col. Vol. Sci. Pap. ICCAT, 58(3): 1171-1178 (2005) have yet to be incorporated into the ICCAT shark tagging database. The Sub-Committee recommends that the Secretariat request these data from the appropriate source.
- vii) In addition to making use of the tagging data, *better use of historic effort patterns from the tuna fisheries* might be useful in improving advice on the status of these and other by-catch species. The Sub-Committee recommends that the Sub-Committee on Statistics review the available data and develop a method to raise the nominal reported effort statistics to the reported Task I catch data for the range of tuna fleets in the ICCAT area of responsibility.
- viii) The Sub-Committee also recommends that Parties be encouraged to conduct *data mining research to estimate historical catch (including discarded catch) and size/sex frequency of the catches* from the full range of fleets impacting these species.
- ix) The Sub-Committee further recommends that *standardized CPUE patterns from major fishing fleets*, such as those of the EC-Spain, EC-Portugal, etc., be provided.
- x) The Sub-Committee also recommends *making broader use of trade statistics (fins, etc.)* to extend the historical time series of estimates of removals. If using trade statistics, the Sub-

- Committee recommends use of species- and fleet-specific fin to weight conversion ratios as stated in the response to the Commission on Recommendation 04-10.
- xj) The Sub-Committee further recommends continued *research into the use of historic measures of relative abundance*, such as those potentially available from exploratory fishing surveys conducted in the 1950s.
 - xii) Information available on movement patterns for blue and other sharks in the South Atlantic is relatively sparse. *Increased tagging efforts* (including the application of electronic tags) throughout the Atlantic, but *especially in the southern hemisphere*, are recommended. Cooperative research between ICCAT Parties and other Regional Fisheries Management Organisations with interest in shark and other by-catch species is especially needed because of the wide-ranging and highly migratory nature of these stocks. Such cooperative research might best be coordinated through ICCAT, and the Sub-Committee recommends the Commission again consider funding a by-catch coordinator position at the Secretariat to deal with shark and other by-catch issues.
 - xiii) A number of uncertainties remain regarding basic life-history characteristics of blue shark and shortfin mako. There remain questions on the reproductive cycle for blue sharks which, if addressed through research, may result in more certain stock evaluations into the future. For shortfin mako, our understanding of life history traits is much less refined than for blue sharks and considerable improvement in understanding of mako shark biology should result from intensified research on this species. The Sub-Committee thus recommends increased research into the life history of these species.