



**SCIENTIFIC COMMITTEE
SIXTH REGULAR SESSION**

Nuku'alofa, Tonga
10-19 August 2010

**JOINT TUNA RFMOS WORKSHOPS IN 2010:
REPORTS AND RECOMMENDATIONS**

WCPFC-SC6-2010/GN-WP-06

Prepared by WCPFC Secretariat

1. INTRODUCTION

In accordance with the decision of the second joint tuna RFMOs in San Sebastian, the following four workshops were convened in 2010:

- a) Meeting of experts to share best practices on the provision of scientific advice (Barcelona, Spain, May 31 to June 2, 2010);
- b) International workshop on improvement, harmonization and compatibility of monitoring, control and surveillance measures, including monitoring catches from catching vessels to markets (Barcelona Spain - June 3 to 5, 2010);
- c) International workshop on tuna RFMO management of issues relating to bycatch and to call on RFMOs to avoid duplication of work on this issue (Brisbane, Australia, June 23-25, 2010); and
- d) International workshop on RFMO management of tuna fisheries (Brisbane, Australia – 29 June to 1 July, 2010).

All workshop reports can be found at <http://www.tuna-org.org/meetings2010.htm> by following the relevant links. Recommendations produced from workshops a), c) and d) above, are tabled below, with proposed actions for consideration by the Scientific Committee. SC6 (including each theme session) may provide its responses to the recommendations in each cell in the second column below. The populated tables from SC6 will be delivered to TCC6, and all compiled information will be provided to the Commission.

a) Workshop on the provision of scientific advice

Recommendations	Responsibilities / For SC action
<i>Routine data collected by year: Catch, effort and size data</i>	
1. All members of t-RFMOs are called upon to give a top priority to the provision of data of good quality in a timely manner, according to the existing mandatory data requirements of tuna RFMOs, in order to facilitate the work of tuna RFMOs scientific bodies in the provision of scientific advice based on the most recent information.	Continue to encourage CCMs to provide complete and accurate data in a timely manner. Comment by ST-Theme
2. Lags in the submission of fishery data should be reduced making a full use of communication technologies (e.g. web based) and efforts should be undertaken that basic data formats are harmonized.	For consideration and comments by ST-Theme and SPC-OFPP
3. Efforts should be undertaken so that basic data used in stock	Consideration and comments by

assessment (catch, effort and sizes by flag and time/area strata) provided by members should be made available via the websites of tuna RFMOs or by other means.	ST-Theme and SPC-OFP
4. Fine scale operational data should be made available in a timely manner to support stock assessment work, and confidentiality concerns should be addressed through RFMOs rules and procedures for access protection and security of data.	Already covered. To be noted by ST-Theme
5. Tuna RFMOs should ensure adequate sampling for catch, effort and size composition across all fleets and especially distant water longliners for which this information is becoming limited.	Already covered. To be noted by ST-Theme
6. Tuna RFMOs should cooperate to improve the quality of data, in particular for methods to estimate: (1) species and size composition of tunas caught by purse seiners and by artisanal fisheries and (2) catch and size of farmed tunas.	For consideration and comments by ST-Theme and SPC-OFP
7. Tuna RFMOs should use alternative sources of data, notably observer and cannery data, to both validate the information routinely reported by Parties and estimate catches from non-reporting fleets.	For consideration and comment by ST-Theme and SPC-OFP
<i>Biological data</i>	
8. Regular large scale tagging programs should be developed, along with appropriate reporting systems, to estimate natural mortality growth and movement patterns by sex, and other fundamental parameters for stock assessments.	Already covered. To be noted by the ST Theme
9. Archival tagging should be an ongoing activity of tagging programs as it provides additional insights into tuna behavior and vulnerability.	Already covered and to be noted by ST-Theme
10. Spatial aspects of assessment should be encouraged within all tuna RFMOs in order to substantiate spatial management measures.	For consideration and comments by SA Theme
11. The use of high-resolution spatial ecosystem modeling frameworks should be encouraged in all tuna RFMOs since they offer the opportunity to better integrate biological features of tuna stocks and their environment.	Consideration and comments by SA and EB Theme
<i>Stock assessment</i>	
12. Tuna RFMOs should promote peer reviews of their stock assessment works.	Already covered. To be noted by SA-Theme
13. Tuna RFMOs should use more than one stock assessment model and avoid the use of assumption-rich models in data-poor situations.	Consideration and comments by SA-Theme
14. Chairs of Scientific Committees should jointly develop checklists and minimum standards for stock assessments.	For consideration by SA-Theme and SC Chair. Develop checklist and minimum standards required for WCPFC assessments
<i>Communication by tuna RFMOs</i>	
15. Standardized executive summaries should be developed for consideration by all tuna RFMOs to summarize stock status and management recommendations. These summaries should be discussed and proposed by the chairs of the Scientific Committees at Kobe 3.	Consideration and comment by SA Theme. Develop a draft template
16. The application of the Kobe 2 strategy matrix should be expanded and applied primarily to stocks for which sufficient	Consideration and comments by SA-Theme. See Attachment A

information is available.	for Kobe 2 strategy matrix
17. Tuna RFMOs should develop mechanisms to deliver timely and adequate information on their scientific outcomes to the public.	All Commission scientific work (papers) is posted on the Commission's website. SC may wish to make further comments
18. All documents, data and assumptions related to past assessments undertaken by tuna RFMOs should be made available in order to allow evaluation by any interested stakeholder.	Currently practiced with papers posted on the Commission website. SC may wish to make further comments.
<i>Enhanced cooperation between tuna RFMOs</i>	
19. Chairs of Scientific Committees should establish an annotated list of common issues that could be addressed jointly by tuna RFMOs and prioritize them for discussion at the Kobe 3 meeting.	SC may identify issues to be discussed with other RFMOs
20. Tuna RFMOs should actively cooperate with programs integrating ecosystem and socio-economic approaches such as CLIOTOP to support the conservation of multi-species resources.	SC may consider any recommendations to the Commission on this
<i>Capacity-building</i>	
21. Where determined by a Tuna RFMO, a review of the effectiveness of capacity-building assistance already provided should be undertaken. Reviews of tuna scientific management capacity in developing countries, within the framework of the respective RFMO may also be conducted at their request.	SC may consider making recommendations to the Commission on this
22. Developed countries should strengthen in a sustained manner their financial and technical support for capacity-building in developing countries, notably small island developing States, on the basis of adequate institutional arrangements in those countries and making full use of local, sub-regional and regional synergies.	SC may consider making recommendations to the Commission on this
23. Tuna RFMOs should have assistance funds that cover various forms of capacity-building (e.g. training of technicians and scientists, scholarships and fellowships, attendance to meetings, institutional building, development of fisheries).	Already covered and noted by the SC
24. Tuna RFMOs, if necessary, should ensure regular training of technicians for collecting and processing of data for developing states, notably those where tuna is landed.	Carried out for SPC member countries, Indonesia, Philippines and Vietnam by SPC-OFP with funding assistance from JTF and WCPFC-SRF i.e. Tuna Data Workshops, TUFMAN software development, training, and tech support. However, the SC may want to further consider this item and develop recommendations for the Commission
25. The structural weaknesses in the receiving mechanism for capacity building within a country should be improved by working closely with Tuna RFMOs.	SC may consider developing recommendations to the Commission on this item

b) Workshop on Bycatch

Participants in the Kobe II Bycatch Workshop support bringing the following recommendations forward to the respective RFMOs as regards bycatch across five taxa (seabirds, sea turtles, finfish, marine mammals, and sharks):

Recommendations	SC's action to be taken
<i>I. Improving assessment of bycatch within T-RFMOs</i>	
1. RFMOs should assess the impact of fisheries for tuna, tuna like and other species covered by the conventions on bycatch by taxon using the best available data.	For consideration and comment by EB-Theme and SA-Theme
2. RFMOs should consider adopting standards for bycatch data collection which, at a minimum, allows the data to contribute to the assessment of bycatch species population status and evaluation of the effectiveness of bycatch measures. The data should allow the RFMOs to assess the level of interaction of the fisheries with bycatch species.	Comments by EB and ST Theme
3. Encourage the participation of appropriate scientists in relevant T-RFMO working groups to conduct and evaluate bycatch assessments and proposed mitigation strategies; and	Consideration and comments by EB, SA Themes and SC
4. Implement/enhance observer and port sampling programs with sufficient coverage to quantify/estimate bycatch and require timely reporting to inform mitigation needs and support conservation and management objectives, addressing practical and financial constraints	Comments by EB, ST Themes and ROP
<i>II. Improving ways to mitigate/reduce bycatch within T-RFMO</i>	
5. RFMO measures should reflect adopted international agreements, tools and guidelines to reduce bycatch, including the relevant provisions of the FAO Code of Conduct, the IPOAs for Seabirds and Sharks, the FAO guidelines on sea turtles, the best practice guidelines for IPOAS for seabirds, and the precautionary approach and ecosystem approaches.	Consideration and comments by EB-Theme and the Commission
6. For populations of concern including those evaluated as depleted, RFMOs should develop and adopt immediate, effective management measures, for example, prohibition as appropriate on retention of such species where alternative effective sustainability measures are not in place.	For consideration and comment by EB-Theme, SC and the Commission
7. Evaluate the effectiveness of current bycatch mitigation measures, and their impact on target species catch and management, and identify priorities for action and gaps in implementation, including enforcement of current measures and capacity building needs in developing states	Consideration and comment by EB and FT-Themes
8. Seek binding measures or strengthen existing mitigation measures, including the development of mandatory reporting requirements for bycatch of all five taxa across all gear types and fishing methods where bycatch is a concern; and	Consideration and comment by EB-Theme, SC and the Commission
9. Identify research priorities, including potential pilot projects to further develop and evaluate the effectiveness of current or proposed bycatch mitigation measures, working with fishers, fishing industry, IGOs and NGOs, universities and others as	Further development of BMIS as a tool for t-RFMOs, requires funding support.

appropriate, and facilitate a full compendium of information regarding mitigation techniques or tools currently in use, e.g. building on the WCPFC Bycatch Mitigation Information System.	Support ISSF initiative on purse seine bycatch mitigation. Further consideration and comment by EB and FT Themes
10. Due to the conservation status of certain populations and in accordance with priorities in the RFMO areas, expedite action on reducing bycatch of threatened and endangered species.	Consideration and comment by EB-Theme and FT-Theme
11. Adopt the following principles as the basis for developing best practice on bycatch avoidance and mitigation measures and on bycatch conservation and management measure. <ul style="list-style-type: none"> • binding, • clear and direct, • measureable, • science-based, • ecosystem-based, • ecologically efficient (reduces the mortality of bycatch), • practical and safe, • economically efficient, • holistic, • collaboratively developed with industry and stakeholders, and • fully implemented. 	Consideration and comment by EB-Theme, and FT-Theme, any recommendations should be forwarded to the Commission for adoption.
<i>III. Improving cooperation and coordination across RFMOs</i>	
12. As a matter of priority, establish a joint T-RFMO technical working group to promote greater cooperation and coordination among RFMOs with the attached Terms of Reference. The RFMOs are encouraged to expedite the formation of the joint working group.	Consideration and comment by EB-Theme and SC
13. Actively develop collaborations between relevant fishing industry, IGOs and NGOs, universities and others as appropriate, and RFMOs to assess the impact of bycatch on the five taxa, study the effectiveness of bycatch mitigation measures, and further the understanding of population dynamics of species of conservation concern; and	Consideration and comment by EB-Theme, SC and the Commission
14. Develop the long-term capacity of T-RFMOs to coordinate and cooperate for data collection, assessment of bycatch, outreach, education, and observer training, including establishing a process to share information on current bycatch initiatives and potential capacity building activities.	Consideration and comment by EB, ST Theme, SC and the Commission
15. RFMOs are encouraged to report progress to Kobe III on the formation and on progress against the recommendations in part I and II of this workshop report.	Secretariat to prepare report for Kobe III
<i>IV. Capacity building for developing countries</i>	
16. Acknowledging the additional or new requirements of bycatch mitigation and the need to build further capacity for implementation, in carrying out the recommendations in I, II, and III above, consider capacity building programs for developing countries to assist in their implementation. Establish a list of existing capacity building programs related	Consideration and comments by SC and FFA

to bycatch issues (see attached Appendix 2 for example) to avoid duplication where possible and facilitate coordination of new capacity building programs.	
------------------------------------------------------------------------------------------------------------------------------------------------------------	--

c) WS on RFMO Management of tuna fisheries

Key themes

- a. The long-term profitability of all tuna fisheries is linked to their sustainability and proper management, and all RFMOs should ensure that all stocks of tunas are maintained at sustainable and optimal levels through science-based measures.
- b. Overcapacity is a symptom of broader management problems, and in developing solutions we need to ensure that we deal with both the problem of overcapacity and the longer-term management issues.
- c. In some areas a high proportion of the world's tuna resources are harvested from the waters of developing coastal states. For some of these countries and many small island developing states they are their only tradable resource, and developing coastal States seek a better return for access to tuna resources. Providing developing coastal States with the assistance to better manage, utilise and trade and market these resources will increase the economic return. In this context, developed fishing countries should work with developing coastal States to build industries that provide a better return, including as appropriate reducing and restructuring fleets.
- d. Rights in RFMOs and under international law come with associated obligations, and these must be honoured by all member and cooperating non-member countries.
- e. Tuna sashimi markets are now world-wide, not just in Japan; e.g. USA, EU, China, Chinese Taipei, and Korea.
- f. Fish-aggregating devices (FADs) increase the catches in purse-seine fisheries for skipjack tuna, but FAD fishing for skipjack also captures juvenile bigeye and yellowfin tunas, lowering the longterm catch rates of those species.
- g. Rights already exist in most tuna fisheries, e.g. participatory rights in RFMOs, allocations in some RFMOs, and states' rights under international law.
- h. Some participants stated that now is not the time to build further purse seiners, unless industry can secure long-term access rights in partnership with developing coastal States.
- i. The issues relating to overcapacity and overfishing in tuna RFMOs do not change; hopefully the players now understand that they must act.

Recommendations

Recommendations	SC's action to be taken
<i>RFMOs should, as a matter of urgency:</i>	
1. Develop publicly available authorised and active vessel ¹ lists for all gears. These lists will include small-scale fishing vessels that are capable of catching significant amounts of fish under the competency of tuna RFMOs.	Covered by RFV, further consideration and comment by TCC and the Commission
2. Encourage secretariats to continue their work on the global list of tuna vessels, including the assignment of a unique vessel identifier.	For consideration and comment by TCC
3. As appropriate, RFMOs include only vessels on their active vessel ¹ register in any scheme for reducing capacity by eliminating vessels.	For consideration and comment by TCC
4. Review existing capacity against the best available scientific	For consideration and comment

¹ The definition of 'active vessel' is to be determined by individual RFMOs

advice on sustainable levels of catch and implement measures to address any overcapacity identified.	by SC, to be forwarded for consideration and comment at TCC
5. Each tuna RFMO consider implementing where appropriate a freeze on fishing capacity on a fishery by fishery basis. Such a freeze should not constrain the access to, development of, and benefit from sustainable tuna fisheries by developing coastal States.	For consideration and comment by FT-theme, TCC and the Commission
6. All RFMOs establish strong requirements for the provision of accurate data and information to secretariats so that the status of tuna stocks can be accurately assessed. All RFMO members and cooperating non-members should make a firm commitment to provide these data on a timely basis, and it should be cross-checked with market, landings and processing establishment data under the competency of tuna RFMOs.	For consideration and comment by ST-Theme. In addition, SC (SPC) may provide comments on CCM's data provision. The SC may consider a plan for the cross-checking of available data.
7. Develop a consistent enforceable regime for sanctions and penalties, to be applied to RFMO members and non-members and their vessels that breach the rules and regulations developed and implemented by RFMOs.	For consideration and comment by TCC and the Commission
8. Ensure that the effectiveness of all conservation and management measures is not undermined by exemption or exclusion clauses.	Noted and for consideration and comment by SC and TCC, if necessary
9. Ensure that all conservation and management measures are implemented in a consistent and transparent manner and are achieving their management goals.	Noted and for consideration and comment by SC and TCC, if necessary
10. Review and strengthen their MCS framework to improve the integrity of their management regime and measures.	For consideration and comment by TCC
<i>RFMOs should, in the medium term:</i>	
11. Develop measures of capacity and, in the absence of an agreed capacity definition, adopt the FAO definition "The amount of fish (or fishing effort) that can be produced over a period of time (e.g. a year or a fishing season) by a vessel or a fleet if fully utilised and for a given resource condition."	For consideration and comment by SC, TCC and the Commission
12. Ensure that all stocks maintained at sustainable and optimal levels through science-based measures.	For consideration and comment by SC
13. Review and develop management regimes, based <i>inter alia</i> on the concept of fishing rights for fisheries under the RFMOs' competence.	For consideration and comment by TCC and the Commission
14. Consider using right-based management approaches and other approaches as part of a 'tool box' to address the aspirations of developing states, overfishing, overcapacity and allocation.	For consideration and comment by SC and TCC
15. The tuna RFMOs should ensure a constant exchange of information with regard to the capacity of fleets operating within their zones as well as the mechanisms to manage this capacity. Kobe III will provide an opportunity for the tuna RFMOs to provide an update on progress with these issues.	For consideration and comment by SC, TCC and the Commission. Secretariat to report on progress.

Attachment 1 to Appendix 1

THE KOBE II STRATEGY MATRIX

At the first global summit of Tuna RFMOs (Kobe, Japan, January 2007), the Course of Actions document included recommendations to standardize the presentation of stock assessments and to base management decisions upon the scientific advice, including the application of the precautionary approach. Regarding standardization, it was agreed that stock assessment results across all five tuna RFMOs should be presented in the “four quadrant, red-yellow-green” format now referred to as the Kobe Plot. This graphical aid has been widely embraced as a practical, user-friendly method for presenting stock status information. The next logical step is a “strategy matrix” for managers that lays out options for meeting management targets, including if necessary, ending overfishing or rebuilding overfished stocks.

The Strategy Matrix would be a harmonized format for RFMO science bodies to convey advice. Based on targets specified by the Commission for each fishery, the matrix would present the specific management measures that would achieve the intended management target with a certain probability by a certain time. The probabilities and timeframes to be evaluated would be determined by the Commission. In the case of fisheries managed under TACs, the outputs would be the various TACs that would achieve a given result. In the case of fisheries managed by effort limitations, the outputs would be expressed as, for example, fishing effort levels or time/area closures, as specified by the Commission. It would also indicate where there are additional levels of uncertainty associated with data gaps. Managers would then be able to base management decisions upon the level of risk and the timeframe they determine are appropriate for that fishery.

Presenting stock assessment results in this format would also facilitate the application of the precautionary approach, by providing Commissions with the basis to evaluate and adopt management options at various levels of probability. Commissions would establish management objectives and reference points, taking into account the precautionary approach and convention objectives. Additional supportive management measures may be necessary to complement the application of the precautionary approach.

The matrix below provides examples of how this information could be presented, for example, when the management target is to end overfishing, rebuild a depleted stock, or maintain a sustainable fishery.

Strategy Matrix for Setting Management Measures

Management Target	Time Frame	Probability of Meeting Target			Data Rich/ Data Poor
		A%	B%	C%	
<Fishing Mortality Target>	In x years				
	In y years				
	In z years				

Management Target	Time Frame	Probability of Meeting Target			Data Rich/ Data Poor
		A%	B%	C%	
<Biomass Target>	In x years				
	In y years				
	In z years				

Management Target	Time Frame	Probability of Maintaining Status Quo			Data Rich/ Data Poor
		A%	B%	C%	
<Status Quo>					

