

REVIEW OF CONSERVATION AND MANAGEMENT MEASURES RELATING TO TROPICAL TUNAS

PREPARED BY: IOTC SECRETARIAT¹, 14 OCTOBER 2014

PURPOSE

To encourage participants at the Working Party on Tropical Tunas (WPTT16) to review the existing Conservation and Management Measures (CMM) relevant to the three tropical tuna species, noting the CMMs contained in document IOTC–2014–WPTT16–04; and as necessary to 1) provide recommendations to the Scientific Committee on whether modifications may be required; and 2) recommend whether other CMMs may be required.

BACKGROUND

In addition to the CMMs outlined in document IOTC–2014–WPTT16–04, tropical tunas in the Indian Ocean are currently subject to several other CMMs adopted by the Commission, including:

Resolution 13/10 *[On interim target and limit reference points and a decision framework](#)*. This Resolution establishes the general principles that would guide the application of the precautionary approach in the context of IOTC, including the adoption of provisional reference points that would apply until such time as the Commission decides to update the reference points after considering the advice of the Scientific Committee following the management strategy evaluation exercise. The Resolution also considers a decision framework to facilitate management measures that are currently being undertaken by the Commission. This Resolution superseded Recommendation 12/14.

Resolution 13/11 *[On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence](#)*. The Resolution bans the discard of three tropical tuna species, with the exception of fish unfit for human consumption or if no space available to accommodate all fish. This Resolution superseded Recommendation 10/13.

DISCUSSION

As part of best practice, the WPTT is obliged to review existing CMMs and consider whether their science-based components need to be updated. If this is the case, then the WPTT should provide clear, science-based recommendations for the Scientific Committee's consideration.

RECOMMENDATION

That the WPTT **NOTE** paper IOTC–2014–WPTT16–05 which aimed to encourage the WPTT to review the existing Conservation and Management Measures (CMMs) relevant to tropical tunas, and as necessary to 1) provide recommendations to the Scientific Committee on whether modifications may be required; and 2) recommend whether other CMMs may be required.

APPENDICES

Appendix A: Resolution 13/10 *[On interim target and limit reference points and a decision framework](#)*

Appendix B: Resolution 13/11 *[On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence](#)*

¹ Dr. David Wilson (dw@iotc.org)

APPENDIX A

RESOLUTION 13/10

ON INTERIM TARGET AND LIMIT REFERENCE POINTS AND A DECISION FRAMEWORK

The Indian Ocean Tuna Commission (IOTC),

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;

RECALLING that Article 6, paragraph 3, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA), establishes the application of precautionary reference points as a general principle for sound fisheries management;

FURTHER RECALLING that Annex II of UNFSA provides guidelines for the application of precautionary reference points in the conservation and management of straddling fish stocks and highly migratory fish stocks, including the adoption of provisional reference points when information for establishing reference points is absent or poor;

NOTING that Article 7.5.3 of the FAO Code of Conduct for Responsible Fisheries also recommends the implementation of stock specific target and limit reference points, *inter alia*, on the basis of the precautionary approach;

NOTING that recommendations 37 and 38 of the Performance Review Panel, adopted by the Commission as Resolution 09/01, indicate that pending the amendment or replacement of the IOTC Agreement to incorporate modern fisheries management principles, the Commission should implement the precautionary approach including, *inter alia*, precautionary reference points, as set forth in the UNFSA;

NOTING [Resolution 12/01](#) *On the implementation of the precautionary approach* that recommends adoption of provisional reference points, and that the IOTC Scientific Committee proposed provisional values at its 14th Session;

RECALLING ALSO that the IOTC Scientific Committee has initiated a process leading to a management strategy evaluation (MSE) process to improve upon the provision of scientific advice on Harvest Control Rules (HCRs);

ACKNOWLEDGING that continuing dialog between scientists and managers is necessary to define appropriate HCRs for the IOTC tuna and tuna-like stocks;

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

1. When assessing stock status and providing recommendations to the Commission, the IOTC Scientific Committee should apply the following interim target and limit reference points for the species of tuna and tuna-like species listed in **Table 1**. B_{MSY} refers to the biomass level for the stock that would produce the Maximum Sustainable Yield; F_{MSY} refers to the level of fishing mortality that produces the Maximum Sustainable Yield.

Table 1. Interim target and limit reference points.

Stock	Target Reference Point	Limit Reference Point
Albacore	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.40 B_{MSY}; F_{LIM} = 1.40 F_{MSY}$
Bigeye tuna	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.50 B_{MSY}; F_{LIM} = 1.30 F_{MSY}$
Skipjack tuna	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.40 B_{MSY}; F_{LIM} = 1.50 F_{MSY}$
Yellowfin tuna	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.40 B_{MSY}; F_{LIM} = 1.40 F_{MSY}$
Swordfish	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.40 B_{MSY}; F_{LIM} = 1.40 F_{MSY}$

2. These interim target and limit reference points shall be assessed and further reviewed by the IOTC Scientific Committee and the results shall be presented to the Commission for adoption of species-specific reference points. If applicable, the IOTC Scientific Committee should endeavour to apply the interim reference points in the provision of advice on the status of stocks and on recommendations for management measures.
3. The IOTC Scientific Committee shall assess, as soon as possible and more particularly through the management strategy evaluation process (MSE) process, the robustness and the performance of the interim

reference points, specified under paragraph 1 and other reference points based on the guidelines of International agreements taking into account: i) the nature of these reference points – target or limits, ii) the best scientific knowledge on population dynamics and on life-history parameters, iii) the fisheries exploiting them, and iv) the various sources uncertainty.

4. In addition the IOTC Scientific Committee shall develop and assess potential harvest control rules (HCRs) to be applied, considering the status of the stocks against the reference points assessed in paragraph 3 for albacore, bigeye tuna, skipjack tuna, yellowfin tuna and swordfish. Based on the results of the MSE and considering the guidelines set forth in the UNFSA and in Article V of the IOTC Agreement, the IOTC Scientific Committee will recommend to the Commission HCRs for these tuna and tuna-like species, which among other factors, taking account of the following objectives:
 - a) For stocks which assessed status will match with the lower right (green) quadrant of the Kobe Plot, aim at maintaining the stocks in a high probability within this quadrant;
 - b) For stocks which assessed status will match with the upper right (orange) quadrant of the Kobe Plot, aim at ending overfishing with a high probability in as short a period as possible;
 - c) For stocks which assessed status will match with the lower left (yellow) quadrant of the Kobe plot, aim at rebuilding these stocks in as short a period as possible;
 - d) For stocks which assessed status will match with the upper left quadrant (red), aim at ending overfishing with a high probability and at rebuilding the biomass of these stocks in as short a period as possible.
5. Bearing in mind Article 64 of UNCLOS and Article 8 of UNFSA, the entirety of this Resolution is subject to Article XVI (Coastal States' Rights) of the IOTC Agreement for the Establishment of the Indian Ocean Tuna Commission, and Articles 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;
6. This Resolution supersedes Recommendation 12/14 *On interim target and limit reference points*.

APPENDIX B

RESOLUTION 13/11

ON A BAN ON DISCARDS OF BIGEYE TUNA, SKIPJACK TUNA, YELLOWFIN TUNA, AND A RECOMMENDATION FOR NON-TARGETED SPECIES CAUGHT BY PURSE SEINE VESSELS IN THE IOTC AREA OF COMPETENCE

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING the need for action to ensure the achievement of IOTC objectives to conserve and manage bigeye tuna, skipjack tuna and yellowfin tuna in the IOTC area of competence;

RECOGNISING that the international community has recognised both ethical concerns and policy regarding discards of species in several international instruments and statements, including United Nations General Assembly resolutions (A/RES/49/118 (1994); A/RES/50/25 (1996); A/RES/51/36 (1996); A/RES/52/29 (1997); A/RES/53/33 (1998); A/RES/55/8 (2000); and A/RES/57/142 (2002)), United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea (UNCLOS) relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (United Nations Fish Stocks Agreement); The Rome Consensus on World Fisheries adopted by the FAO Ministerial Conference on Fisheries, Rome, 14–15 March 1995; the Code of Conduct for Responsible Fisheries, the FAO International Plan of Action (IPOA) on sharks; the Convention on Biological Diversity (CBD);

RECALLING that the United Nations Fish Stocks Agreement has underlined the importance of ensuring the conservation and optimum utilisation of highly migratory species through the action of regional fishery bodies such as the IOTC, and provides that “*States should minimize ... discards, ..., catch of non target species, both fish and non-fish species, and impacts on associated or dependent species, in particular endangered species ...*”;

RECALLING that The Rome Consensus on World Fisheries adopted by the FAO Ministerial Conference on Fisheries, Rome, 14–15 March 1995, provides that “*States should...reduce bycatches, fish discards ...*”;

RECALLING that the FAO Code of Conduct for Responsible Fisheries provides that “*States should take appropriate measures to minimize waste, discards...collect information on discards ...; ... take account of discards (in the precautionary approach) ...; develop technologies that minimize discards ...; use of selective gear to minimize discards*”;

RECALLING that the Commission adopted [Resolution 12/01](#) on the implementation of the precautionary approach;

CONCERNED about the morally unacceptable waste and the impact of unsustainable fishing practices upon the oceanic environment, represented by the discarding of tunas and non-target species in the purse seine fishery for tunas in the Indian Ocean;

CONSIDERING the important volume of tuna and non-targeted species discarded in the purse seine fishery for tunas in the Indian Ocean;

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

RETENTION OF TUNA SPECIES

1. Contracting Parties and Cooperating Non-Contracting Parties shall require all purse seine vessels to retain on board and then land all bigeye tuna, skipjack tuna, and yellowfin tuna caught, except fish considered unfit for human consumption.
2. Procedures for the implementation of full retention requirements include:
 - a) No bigeye tuna, skipjack tuna, and/or yellowfin tuna caught by purse seine vessels may be discarded after the point in the set when the net is fully pursed and more than one half of the net has been retrieved. If equipment malfunctions affect the process of pursing and retrieving the net in such a way that this rule cannot be complied with, the crew must make efforts to release the tuna as soon as possible.
 - b) The following two exceptions to the above rule shall apply:

- i. Where it is determined by the captain of the vessel that tuna (bigeye tuna, skipjack tuna or yellowfin tuna) caught are unfit for human consumption, the following definitions shall be applied:
 - "unfit for human consumption" are fish that:
 - is meshed or crushed in the purse seine; or
 - is damaged due to depredation; or
 - has died and spoiled in the net where a gear failure has prevented both the normal retrieval of the net and catch, and efforts to release the fish alive;
 - "unfit for human consumption" does not include fish that:
 - is considered undesirable in terms of size, marketability, or species composition; or
 - is spoiled or contaminated as the result of an act or omission of the crew of the fishing vessel.
- ii. Where the captain of a vessel determines that tuna (bigeye tuna, skipjack tuna or yellowfin tuna) was caught during the final set of a trip and there is insufficient well space to accommodate all tuna (bigeye tuna, skipjack tuna or yellowfin tuna) caught in that set. This fish may only be discarded if:
 - the captain and crew attempt to release the tuna (bigeye tuna, skipjack tuna or yellowfin tuna) alive as soon as possible; and
 - no further fishing is undertaken after the discard until the tuna (bigeye tuna, skipjack tuna or yellowfin tuna) on board the vessel has been landed or transhipped.

RETENTION OF SPECIES OTHER THAN THOSE SPECIFIED UNDER PARA 2, A)

3. Contracting Parties and Cooperating Non-Contracting Parties should encourage all purse seine vessels to retain on board and then land all non-targeted species as far as the vessel can ensure appropriate fishing operation (including but not limited to other tunas, rainbow runner, dolphinfish, triggerfish, billfish, wahoo, and barracuda) except fish considered unfit for human consumption (as defined in paragraph 2 b) i). A single exception shall be the final set of a trip, when there may be insufficient well space remaining to accommodate all the non-targeted fish caught in that set.

IMPLEMENTATION

4. The IOTC Scientific Committee, the IOTC Working Party on Tropical Tunas, and the IOTC Working Party on Ecosystems and Bycatch shall annually:
 - a) review the information available on bycatch (retained and discarded) by purse seine vessels; and
 - b) provide advice to the Commission on options to sustainably manage discards in purse seine fisheries.
5. This Resolution shall enter into force on 1 January 2014 and will be revised, according to the advice of the IOTC Scientific Committee resulting from the review of the IOTC Working Party on Tropical Tunas (for bigeye tuna, skipjack tuna and yellowfin tuna) and of the IOTC Working Party on Ecosystems and Bycatch (for non-target species).
6. This Resolution supersedes Recommendation 10/13 *on the implementation of a ban on discards of skipjack tuna, yellowfin tuna, bigeye tuna and non targeted species caught by purse seiners.*