

OUTCOMES OF THE FOURTEENTH SESSION OF THE SCIENTIFIC COMMITTEE AND THE SIXTEENTH SESSION OF THE COMMISSION

PREPARED BY: IOTC SECRETARIAT, 4 OCTOBER, 2012

PURPOSE

To inform the Working Party on Methods (WPM) of the recommendations arising from the Fourteenth Session of the Scientific Committee (12–17 December, 2011), and the Sixteenth Session of the Commission (22–26 April, 2012) specifically related to the work of the WPM.

BACKGROUND

Scientific Committee:

At the 14th Session of the Scientific Committee (SC14), the following recommendations on Management Strategy Evaluation and CPUE standardisation were agreed to:

Dedicated workshop on CPUE standardisation

- 1) Noting the combined recommendations from the WPB, WPTmT and WPTT to hold a dedicated workshop on CPUE standardization in 2012, the SC **RECOMMENDED** that a dedicated, informal workshop on CPUE standardization, including issues of interest for other IOTC species, should be carried out before the next round of stock assessments in 2013, and that where possible it should include a range of invited experts, including those working on CPUE standardisation in other ocean/RFMOs, in conjunction with scientists from Japan, Republic of Korea and Taiwan, China, and supported by the IOTC Secretariat... (para. 110)

Management Strategy Evaluation

- 1) The SC **NOTED** that the Commission, at its 15th Session endorsed the development of a Management Strategy Evaluation (MSE) in the framework of IOTC and requests that this process be continued in 2011 (para. 43 of the S15 report). (para. 146)
- 2) Noting that the development of an MSE process will require management objectives to be specified, the SC **RECOMMENDED** that the Commission provide clear guidance in this regard, noting that the adoption of the Precautionary Approach, as defined in the Fish Stocks Agreement, may be the first step. (para. 146)
- 3) The SC **RECOMMENDED** that interim target and limit reference points be adopted and a list of possible provisional values for the major species is listed in Table 5. These values should be replaced as soon as the MSE process is completed. Provisional target reference points would be based on the MSY level of the indicators, and on different multipliers for the limit reference points. (para. 149)

Table 5. Interim target and limit reference points.

Stock	Target Reference Point	Limit Reference Point
Albacore	$B_{MSY}; F_{MSY}$	$0.4*B_{MSY}; 1.4*F_{MSY}$
Bigeye tuna	$B_{MSY}; F_{MSY}$	$0.5*B_{MSY}; 1.3*F_{MSY}$
Skipjack tuna	$B_{MSY}; F_{MSY}$	$0.4*B_{MSY}; 1.5*F_{MSY}$
Yellowfin tuna	$B_{MSY}; F_{MSY}$	$0.4*B_{MSY}; 1.4*F_{MSY}$
Swordfish	$B_{MSY}; F_{MSY}$	$0.4*B_{MSY}; 1.4*F_{MSY}$

- 4) The SC **ENDORSED** the roadmap presented for the implementation of MSE in the Indian Ocean in IOTC–2011–SC14–36 and **RECOMMENDED** the Commission agree to initiate a consultative process among managers, stakeholders and scientists to begin discussions about the implementation of MSE in IOTC. (para. 157)

DISCUSSION**Commission:**

At the 16th Session of the Commission (S16), the following recommendations on Management Strategy Evaluation and CPUE standardisation were agreed to:

Management Strategy Evaluation (MSE)

- 1) The Commission **NOTED** the SC request to develop management objectives to guide the MSE process. No additional guidance is provided by the Commission at this time, outside of the IOTC Agreement. (para. 26 of the S16 report).
- 2) The Commission **NOTED** the presentation by Dr Iago Mosqueira on the development of an MSE process for the IOTC and **ENDORSED** the roadmap presented for the implementation of MSE in the Indian Ocean and **AGREED** to initiate a consultative process among managers, stakeholders and scientists to begin discussions about the implementation of MSE in IOTC. (para. 27 of the S16 report).

Proposals for Conservation and Management Measures adopted by the Commission

At the 16th Session, the Commission **CONSIDERED** and **ADOPTED** 12 proposals as Conservation and Management Measures and renewed a further 3 existing Resolutions (15 in total consisting of 13 Resolutions and 2 Recommendations). Two of these have direct relevance to the WPM:

1) Resolution 12/01 *On the implementation of the precautionary approach*

The Commission **ADOPTED** Resolution 12/01 *On the Implementation of the Precautionary Approach* ([Appendix A](#)). This Resolution establishes the general principles that would guide the application of the precautionary approach in the context of the IOTC. The basic tenet being: do not take actions that would have an unacceptably high risk of compromising the health of the resource or its environment in the long term. The provisions also include ecosystem considerations in the form of impacts on non-target and associated or dependent species and their environment, or the effects of unanticipated environmental events.

2) Recommendation 12/14 *On Interim Target and Limit Reference Points for the Major IOTC Species*

The Commission **ADOPTED** Recommendation 12/14 *On Interim Target and Limit Reference Points for the Major IOTC Species* ([Appendix B](#)). This Recommendation establishes provisional target reference points that are compatible with the attainment of the Maximum Sustainable Yield (MSY). The limit reference points (that indicate high risk to the conditions of the stocks) are set at a biomass reduction to 40%–50% of the MSY level, or a fishing pressure that exceeds by 30–50% the level that would produce the MSY.

RECOMMENDATION

That the Working Party on Methods **NOTE** the recommendations of the Fourteenth Session of the Scientific Committee and the Sixteenth Session of the Commission, relevant to the WPM, and consider how to progress these issues at the present meeting.

APPENDICES

Appendix A: [Resolution 12/01 *On the Implementation of the Precautionary Approach*](#)

Appendix B: [Recommendation 12/14 *On Interim Target and Limit Reference Points for the Major IOTC Species*](#)

APPENDIX A**RESOLUTION 12/01
ON THE IMPLEMENTATION OF THE PRECAUTIONARY APPROACH****The Indian Ocean Tuna Commission (IOTC),**

RECALLING that Article 5, paragraph c, 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 the precautionary approach as a general principle for sound fisheries management;

FURTHER RECALLING that Article 6, and Annex II, of UNFSA provide guidelines for the implementation of the precautionary approach, including the adoption of provisional reference points when information for establishing reference points is absent or poor;

NOTING that Article 7.5 of the FAO Code of Conduct for Responsible Fisheries also recommends the implementation of the precautionary approach, *inter alia*, on the basis of stock-based target and limit reference points;

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 as set forth in the UNFSA;

MINDFUL that Paragraph 29.6 of the FAO Guidelines for the Eco-labelling of Fish and Fishery Products from Marine Capture Fisheries, revision 1, 2009, and other eco-certification initiatives highlight the implementation of the precautionary approach as an important criterion to assess the sustainability of a fishery;

RECALLING the time–area closure adopted by the Commission towards the conservation of tropical tuna stocks, described in Resolution 10/01;

RECALLING that the IOTC Scientific Committee has initiated a process of management strategy evaluation to focus the provision of scientific advice on the information needs of the Commission;

RECOGNISING the need to ensure the sustainability of fisheries for tunas and tuna-like species for food security, livelihoods, economic development, multispecies interactions and environmental impacts in its decisions;

AGREES, in accordance with paragraph 1 of Article IX of the IOTC Agreement, to the following:

1. To apply the precautionary approach, in accordance with relevant internationally agreed standards, in particular with the guidelines set forth in the UNFSA, and to ensure the sustainable utilization of fisheries resources as set forth in Article V of the IOTC Agreement.
2. In applying the precautionary approach, the Commission shall adopt, after due consideration of the advice supplied by the Scientific Committee,
 - a) stock-specific reference points (including, but not necessarily limited to, target and limit reference points¹), relative to fishing mortality and biomass, and
 - b) associated harvest control rules², that is, management actions to be taken as the reference points for stock status are approached or if they are breached

¹ Target Reference Points corresponds to a state of a fishery and / or a resource which is considered desirable; Limit Reference Points indicates the limit beyond which the state of a fishery and / or a resource is not considered desirable. Source: <http://www.fao.org/fi/glossary> (accessed 25 April 2012).

² Harvest Control Rule: A rule that describes how harvest is intended to be controlled by management in relation to the state of some indicator of stock status. Source: <http://www.fao.org/fi/glossary> (accessed 25 April 2012).

Reference points and harvest control rules shall be determined so that, according to the best available science, the risk of a negative impact on the sustainability of Indian Ocean resources of tuna and tuna-like species is minimized.

3. In the determination of appropriate reference points and harvest control rules, consideration must be given to major uncertainties, including the uncertainty about the status of the stocks relative to the reference points, uncertainty about biological, environmental and socio-economic events and the effects of fishing activities on non-target and associated or dependent species.
4. If an unanticipated event, such as a natural phenomenon has a significant adverse impact on the status of a stock or its associated environment, the Commission shall adopt conservation and management measures on an emergency basis to ensure that fishing activity does not exacerbate such adverse impacts.
5. Initially and as an interim measure, the Commission may adopt provisional reference points and harvest control rules, taking into account the advice of the Scientific Committee; such measures would remain current until such time as the Commission chooses to update them.
6. Instruct the Scientific Committee to assess, through the management strategy evaluation process, the performance of reference points, including any interim reference points, and of potential harvest control rules to be applied as the status of the stocks approaches the reference points.
7. After completion of the management strategy evaluation, the Scientific Committee should provide the Commission with recommended reference points for all major stocks, and cast future advice on the status of the stocks relative to the adopted reference points, on the basis of the best available scientific evidence.
8. The Scientific Committee will report on the progress of the management strategy evaluation process at the Commission Session in 2014, with a view to confirming or updating any interim reference points and associated harvest control rules.

APPENDIX B
**RECOMMENDATION 12/14
ON INTERIM TARGET AND LIMIT REFERENCE POINTS**
The Indian Ocean Tuna Commission (IOTC),

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 Scientific Committee proposed provisional values at its 14th Session;

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

1. When assessing stock status and providing recommendations to the Commission, the 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 tuna	B_{MSY} ; F_{MSY}	40% of B_{MSY} ; 40% above F_{MSY}
Bigeye tuna	B_{MSY} ; F_{MSY}	50% of B_{MSY} ; 30% above F_{MSY}
Skipjack tuna	B_{MSY} ; F_{MSY}	40% of B_{MSY} ; 50% above F_{MSY}
Yellowfin tuna	B_{MSY} ; F_{MSY}	40% of B_{MSY} ; 40% above F_{MSY}
Swordfish	B_{MSY} ; F_{MSY}	40% of B_{MSY} ; 40% above F_{MSY}

2. These interim target and limit reference points shall remain in effect until the Commission adopts updated, species-specific reference points and harvest control rules, considering the scientific advice supplied by the Scientific Committee.
3. In implementing harvest control rules, the Commission, taking into account the advice of the Scientific Committee, shall act to ensure that there is a high probability of target reference points being reached and a low probability of limit reference points being breached. This may be achieved by managing fishing mortality at levels which will allow stock biomass to be maintained above its limit reference points and around its target reference points.