



# Report on the Joint tuna RFMOs MSE working group meeting

Seattle 13-15 June, 2018

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# Contents

Abstract..... ii

1 Introduction ..... 1

2 Discussion ..... 2

3 Summary of Recommendations ..... 3

References..... 5

# Abstract

The ICCAT secretariat facilitated the preparation of a meeting of the Joint Tuna Regional Fisheries Management Organisations (RFMOs) Management Strategy Evaluation (MSE) Working Group, in June 2018. This was the second meeting of the group. Several CCSBT Scientific Committee members were present. The SBT Management Procedure (MP) is well established relative to other tuna RFMOs who may have only recently adopted a Harvest Control Rule (HCR), or Harvest Strategy (HS), or are in the process of developing MPs and testing these through Management Strategy Evaluation (MSE). There are increasing links between tuna RFMOs, with managers, stakeholders, Commissioners and scientists attending meetings in multiple RFMOs and there is an identified need to ensure communication and terminology are consistent. The report of the joint tuna RFMOs MSE working group meeting has not yet been finalised, but the recommendations from the working group are now available. The recommendations from the meeting are briefly discussed here, and a link to the report and recommendations will be provided to the scientific Committee members when it becomes available.

# 1 Introduction

The ICCAT secretariat facilitated the preparation of a meeting of the Joint Tuna Regional Fisheries Management Organisations (RFMOs) Management Strategy Evaluation (MSE) Working Group, held just prior to the CCSBT OMMP meeting, from the 13-15 June 2018, at the University of Washington in Seattle, USA. This was the second meeting of the joint Tuna RFMO MSE group. The first meeting of this working group was held in Madrid, November 1-3, 2016 (see <http://www.tuna-org.org/mse.htm>). Attendance of some participants was supported by the GEF-FAO-WWF sustainable tuna in the Areas Beyond National Jurisdiction project.

The objectives of the 2016 meeting were to:

- Review current MSE practice, successes, failures and potential areas for collaboration.
- Discuss progress on MSE.
- Identify future actions focusing on areas for collaboration.

The 2018 meeting agenda ([http://www.tuna-org.org/Documents/2018/MSE\\_Working\\_Group.pdf](http://www.tuna-org.org/Documents/2018/MSE_Working_Group.pdf)) followed the 2016 format with an additional agenda item for discussion of 'Provisions for exceptional circumstances', and aimed to include outcomes from other relevant meetings.

The 2018 meeting agenda was organised around six themes:

1. The MSE process and stakeholder dialogue
2. Conditioning operating models
3. Albacore case study currently underway across tuna RFMO's
4. Provision for exceptional circumstances
5. Computational aspects
6. Dissemination of results.

This paper summarises discussions and items of interest to the CCSBT ESC. The report of the 2018 Joint tuna-RFMO MSE working group is not yet available but the recommendations from the meeting have been finalised (we will provide links when they become available). Several SBT scientists were present: Ann Preece, Campbell Davies and Rich Hillary attended from CSIRO; Hilario Murua, Ana Parma, Jim Ianelli and Doug Butterworth also participated. Scientists from most tuna RFMOs and some non-tuna RFMOs (International Whaling Commission, Halibut Commission, and South Pacific RFMO) were participants in the meeting.

## 2 Discussion

There are increasing links between tuna RFMOs, with managers, stakeholders, Commissioners and scientists attending meetings in multiple RFMOs and an identified need to ensure Management Strategy Evaluation (MSE) related communication and terminology are consistent. The SBT Management Procedure (MP) is one of only a few Harvest Strategies (HS) that are operational in the tuna RFMOs but there is substantial progress and work underway on MSE, and MP, HS, and Harvest Control Rule (HCR) development and stakeholder dialogue. Clarification of MSE and MP related terminology was the starting point for discussions and is a recurring theme in MSE meetings. Succinct summaries of the differences between MPs, HCR and HS were made during the meeting that assisted in general agreement of terms across the tuna RFMOs. Several participants were involved in a meeting held in San Diego (January, 2018) on MSE communication, from which the organising committee has developed a brief non-technical glossary of key MSE terms, specifically targeted at stakeholders (Miller et al, in press). Comments on this were received at the tuna RFMO MSE working group meeting. Further work to specify these in more detail and clarify a broader range of technical terms is still needed.

The structure of tuna RFMO committees and communication between them was of interest for facilitating technical and non-technical review of MSE, MPs and HCRs. Dedicated meetings on MSE, similar to both the technical OMMP working groups and the non-technical Strategy and Fisheries Management Working group at CCSBT, do not occur across all tuna RFMOs but it was recommended that these be established to facilitate dialogue between scientists and between scientists managers and other stakeholders.

Key questions were raised that require further explanation across tuna RFMOs at technical and non-technical levels, in order to facilitate adoption of MPs:

1. The role of stock assessments and separation from management advice. The separation of the roles of: 1) regularly updated stock assessments for current stock status advice, from 2) fully pre-specified MPs for management advice, as conducted by CCSBT, is not widely recognised or adopted across the tuna RFMOs. Management advice (TAC or TAE) in some tuna RFMOs is based on a best assessment approach, and projections using harvest control rules, rather than MSE tested fully specified feedback management procedures.
2. The role of reference points in stock assessment, in contrast to performance statistics for MSE testing. There may not be a common understanding that reference points (target or limit) do not necessarily need to be included explicitly in the HCR of an MP.

The Marine Stewardship Council (MSC) criteria for certification was discussed. A workshop to clarify MSC requirements in relation to forms of harvest strategies has been proposed.

It was noted that stock structure is a key uncertainty in the conditioning of operating models and the development of robust MP, but there is often limited data available for conditioning operating models. Spatial issues in operating models and multi-stock/species structures were recognised as important research areas need to be addressed. Some work is underway on multispecies MSEs.

## 3 Summary of Recommendations

The recommendations from the meeting have recently been finalised. The following is a brief summary of the recommendations.

### MSE process and stakeholder dialogue

1. Avoid assigning the technical MSE development process to a single individual – it is an iterative process that should involve a consistent, core group of experts that regularly reports on progress to other scientists, managers and other stakeholders and implements their feedback.
2. Clarify the role and input of all stakeholders within their MSE process.
3. Include use of other experts (e.g. managers, industry and/or conservation representatives) with experience of the MSE implementation process, to provide capacity building workshops for managers.
4. Set up small technical task groups to discuss and advance key aspects of the MSE process that are of common interest to the Tuna RFMOs
5. Set up the review process for MSE early in the process. To review: 1) the overall MSE process (i.e. the rationale, framework and work plan); 2) specific MSE components e.g. operating models (OMs) and conditioning; and 3) validation of the final technical code for operating models and selected MP.
6. Set up dialogue with the MSC to discuss their criteria for certification in an MSE context.

### Conditioning operating models

7. Consider a range of plausible scenarios for OMs which is sufficiently broad so that tested MPs or HCRs do not require amendment or retesting too often.
8. Ensure all OMs are adequately conditioned i.e. ensure that they are sufficiently consistent with the historical data to be considered plausible.
9. Consider stock structure as a potential major source of uncertainty with strong conservation and management implications. Focus on the research needed to provide the necessary data to develop and parametrize the OMs.
10. Consider at a future meeting how to weight the scenarios in OMs relative to plausibility.
11. In multispecies MSE, focus initial OM developments on technical interactions.

### Computational aspects

12. Document and validate code. Ensure the mathematical specifications for all code developed for MSE purposes is fully documented, code is validated and made publicly available.

## Dissemination of results

13. Trial visualization approaches for presenting MSE results on focus groups to check their suitability for each forum/stakeholder group.
14. Use 'GitHub' or similar site for code and graphical presentations of results to facilitate sharing of code across RFMOs.

## Further Work

15. Refine a broader glossary of terms.
16. Continue to discuss the topic of 'Exceptional Circumstances'; to be coordinated by Ann Preece and David Die.
17. Further consider the relative merits of model-based vs empirical MPs.
18. Develop a comprehensive joint TRFMO MSE WG website and link to each RFMO's MSE webpages.
19. Develop an agenda for the next meeting and work plan and priorities for further activities.

The items of specific interest to the CCSBT scientific committee members potentially include: the joint tuna RFMO initiatives to discuss commonalities and differences in approaches; validation of code, documentation and transparency; spatial stock structure as a potential source of uncertainty in OMs and MPs; trials of visualisation of MSE results; sharing of methods and code across tuna RFMOs; further work on a broader glossary of terms; and contributions to work plans and future activities of the joint tuna RFMO MSE working group.



# References

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