



TECHNICAL AND COMPLIANCE COMMITTEE
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**PNA'S DRAFT CONSERVATION AND MANAGEMENT MEASURE ON A
TARGET REFERENCE POINT FOR SKIPJACK TUNA.**

WCPFC-TCC10-2014-DP06
23 September 2014

Submitted by PNAMembers and Tokelau



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Date: 23 September 2014

Professor Glenn Hurry
Executive Director
Western and Central Pacific Fisheries Commission
PO Box 2356
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Dear Executive Director,

Re: CMM on a Target Reference Point for Skipjack Tuna

I write in my capacity as the Chair of the Parties to the Nauru Agreement on behalf of the 8 members of the PNA, and Tokelau. Please find attached a draft Conservation and Management Measure on a Target Reference Point for Skipjack Tuna prepared by PNA members and Tokelau.

Please distribute this text as a Delegation Paper to TCC10. Supporting information is included in the explanatory note accompanying the draft CMM text. The explanatory note includes information required by the Commission under CMM 2013-06: on the Criteria for the Consideration of Conservation and Management Proposals.

We apologise for the short notice of submission of this draft CMM. However, we hope that submitting it to TCC at this stage will facilitate consideration of the draft CMM before WCPFC11. We look forward to discussion on the proposal with other delegations to TCC10.

Yours Sincerely,

Solomua Ionatana
Chair, Parties to the Nauru Agreement

cc: Ms. Lara Manarangi-Trott, Officer in Charge, WCPFC

EXPLANATORY NOTE ON PNA'S DRAFT CONSERVATION AND MANAGEMENT MEASURE ON A TARGET REFERENCE POINT FOR SKIPJACK TUNA

Purpose

1. The purpose of this note is:
 - a) to inform discussion on the attached draft Conservation and Management Measure on a Target Reference Point for Skipjack Tuna; and
 - b) to provide information for the Commission to meet the requirements of CMM 2013-06 in respect of this draft CMM.
2. The draft text is prepared without prejudice to the future position of any PNA member or PNA members collectively on a skipjack target reference point.

Overview

3. The WCPO skipjack stock is a critically important stock for global tuna canning supplies, other commercial tuna products and small-scale, artisanal and subsistence fisheries. The effective management and sustainable use of this stock is important both to the peoples of the states in whose waters this stock occurs and to the fleets that harvest them. The stock is especially important for SIDS, for some of whom this stock is the natural resource on which their sustainable development most heavily depends.
4. Establishing a Target Reference Point for this stock is an important step in the development of a Harvest Strategy to ensure the effective management and sustainable use of this stock, and secure recognition of fisheries on WCPO skipjack as sustainable.

Background

5. In article 5 (c) of the Convention, members of the Commission have committed to apply the precautionary approach, in accordance with the Convention and all relevant internationally agreed standards and recommended practices and procedures,
6. Annex II 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) sets out guidelines for the application of precautionary reference points in the conservation and management of straddling fish stocks and highly migratory fish stocks.
7. Article 6 1 (a) of the Convention requires members of the Commission in their application of the precautionary approach to apply these guidelines and determine, on the basis of the best

scientific information available, stock-specific reference points and the action to be taken if they are exceeded.

8. At its 8th Annual Session, the Commission adopted a hierarchical approach to identifying the Limit Reference Points for the key target species in the WCPFC as follows:

| Level | Condition | LRPs |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Level 1 | A reliable estimate of steepness is available | F_{MSY} and B_{MSY} |
| Level 2 | Steepness is not known well, if at all, but the key biological (natural mortality, maturity) and fishery (selectivity) variables are reasonably well estimated. | $F_{X\%SPR_0}$ and either $20\%SB_0$ or $20\%SB_{current,F=0}$ |
| Level 3 | The key biological and fishery variables are not well estimated or understood. | $20\%SB_0$ or $20\%SB_{current,F=0}$ |

9. At its 9th Annual Session, the Commission decided that Limit Reference Points for bigeye, yellowfin and South Pacific albacore shall be set at Level 2 with regard to the biomass-based LRP of $20\%SB_{recent,F=0}$, with further work to be undertaken on fishing mortality-based LRPs for these stocks. The Commission also decided to set the LRP for skipjack at Level 3, $20\%SB_{recent,F=0}$, where $SB_{recent,F=0}$ refers to the estimated spawning biomass in the absence of fishing averaged over a recent time window.
10. At its 10th Annual Session, the Commission decided that the time window for estimation of the spawning biomass in the absence of fishing should have a length of 10 years, and be based on the years $t_1=y_{last}-10$ to $t_2=y_{last}-1$ where y_{last} is the last year used in the assessment. WCPFC10 also agreed on a programme of work to be undertaken to inform the Commission's consideration and adoption of a Target Reference Point and Harvest Control Rule for skipjack tuna at its session in 2014.
11. In response, SC10 has advised that the spawning biomass of skipjack tuna is now around the mid-point of the range of candidate TRPs of 40%, 50%, and 60% of estimated recent average spawning biomass in the absence of fishing that WCPFC10 had asked the Committee to consider as candidate target reference points for skipjack. In addition, SC10 has recommended that the Commission take action to avoid further increases in skipjack fishing mortality and keep the skipjack stock around the current levels, and has advocated for the adoption of a Target Reference Point and Harvest Control Rules for skipjack.
12. Analyses presented to SC10 using stochastic stock projections and the 2011 stock assessment of skipjack indicated that:

- a) a TRP of 50% of $SB_{F=0,2000-2009}$ would appear broadly consistent with maintaining the patterns of fishing in 2010;
- b) a TRP of 50% of $SB_{F=0,2000-2009}$ is sufficiently distant from the LRP to ensure the population does not fall below the LRP with a high degree of certainty;
- c) both the estimated catch value per day and catch value per ton in 2040 were projected to be comparable to those estimated in 2010;
- d) there was little difference in the overall mean length of the purse-seine catch in 2040 compared to that modelled in 2010; and
- i) vulnerable biomass within the purse-seine fishery (a CPUE proxy, assuming that CPUE will change proportionally to abundance) was estimated to increase slightly in the western equatorial Pacific.

13. Additional analysis using the base case from the 2014 assessment run found similar results. Further analysis will be undertaken using the axes of uncertainties and associated weighting to be included in the structural grid of assessment runs recommended by SC10.

Approach

14. The draft CMM proposes 50 per cent of the estimated recent average spawning biomass in the absence of fishing, $SB_{F=0,t1-t2}$, as a TRP for WCPO skipjack, where the recent average spawning biomass in the absence of fishing is to be estimated in the same manner as decided by the Commission for the LRP for skipjack, i.e.

- a) have a length of 10 years, based on the years $t1=y_{last}-10$ to $t2=y_{last}-1$ where *y_{last}* is the last year used in the assessment; and
- b) be based on the most recent skipjack assessment model estimates of recruitment that have been adjusted to reflect unfished conditions according to the stock recruitment relationship.

15. This proposed TRP is completely consistent with the adoption of:

- i) the hierarchical approach to the identification of reference points adopted by WCPFC8;
- ii) the adoption by WCPFC9 of a biomass-based LRP for skipjack of 20% of estimated recent average spawning biomass in the absence of fishing; and
- iii) the results of the analyses called for by WCPFC10 to inform the Commission's consideration and adoption of a Target Reference Point for skipjack tuna at WCPFC11.

16. The proposed TRP also meets a range of objectives identified for the management of the skipjack stock and fisheries upon it, including:

- a) resource sustainability, noting that this TRP is sufficiently distant from the LRP to ensure the population does not fall below the LRP and is well above SB_{MSY}^1 , with SB_{MSY} estimated at $0.27SB_{F=0,2000-2009}$.
 - b) economic goals, noting the current profitable performance of the major fisheries for skipjack, and that this TRP is designed to maintain the volume, size composition and value of catches in real terms at around the current levels;
 - c) promoting stable conditions in the fisheries for skipjack by maintaining the volume, size composition and value of catches at around the current levels
 - d) avoiding additional impacts on fisheries for skipjack at higher latitudes possibly resulting from range contraction
 - e) avoiding additional impacts on other target stocks and non-target species, noting in particular that the proposed TRP is fully consistent with the Commission's strategy for removing overfishing of bigeye as set out in CMM 2013-01 from balanced reductions in fishing mortality from the longline and purse seine fisheries, including by limiting purse overall seine effort to recent levels, and reducing FAD fishery effort appropriately.
17. The proposed TRP is expected to require moderate reductions in purse seine effort to adjust for growth in purse seine fishing effort since 2010, and effort creep. This is consistent with SC10 advice for the Commission take action to avoid further increases in fishing mortality, including tighter purse seine effort limits, and to keep the skipjack stock around the current levels, where the term "current" in the latest assessment refers to the 2008-11 average.
18. The adoption of the proposed TRP will also provide a basis, with the adopted LRP for skipjack, for the Commission to proceed with the development of harvest control rules related to skipjack.
19. The proposed TRP compares responsibly with the decisions of other tuna RFMOs, including
- a) the Indian Ocean Tuna Commission, which has adopted B_{MSY} as an interim TRP for skipjack and other key tuna species;
 - b) the Inter-American Tropical Tuna Commission, which implicitly uses B_{MSY} as a TRP for skipjack; and
 - c) the International Commission for the Conservation of Atlantic Tunas, which has not yet adopted a TRP for skipjack
- In this respect, the adoption of the proposed TRP for WCPO skipjack will set a new global standard for responsible management of sustainable tuna fisheries in a way that adds economic value to the WCPO skipjack tuna stock.

Application of CMM 2013-06

¹ Still to be confirmed using the uncertainty grid of weighted models for the 2014 assessment

20. The following information is offered to assist the Commission to meet the requirements of CMM 2013-06 in respect of this draft CMM.

a. Who is required to implement the proposal?

All CCMs will be required to implement this proposal in their cooperation to establish a harvest strategy for skipjack tuna. However it should be noted that those CCMs who are Parties to the Palau Arrangement bear a large proportion of the effort of implementation through the setting of the Total Allowable Effort under the Vessel Day Scheme.

b. Which CCMs would this proposal impact and in what way(s) and what proportion?

This proposal will have an impact on all CCMs involved in fisheries for WCPO skipjack, and all CCMs participating in the Commission's cooperative effort to establish a harvest strategy for skipjack. The impact will be greatest on SIDS in whose waters fishing for skipjack largely takes place, and who are in many cases substantially dependent on fisheries targeting skipjack for their sustainable development. The impact on SIDS will depend on how the Commission applies the Target Reference Point, noting the importance of the Commission giving full recognition to the special requirements of SIDS in the application of the Target Reference Point.

c. Are there linkages with other proposals or instruments in other regional fisheries management organizations or international organizations that reduce the burden of implementation?

No

d. Does the proposal affect development opportunities for SIDS?

Yes, in some respects the proposal has the potential to limit growth, but in general it will enhance development opportunities for SIDS through the application of the precautionary approach, including the adoption of limit and target reference points, to improve the effectiveness of the management and conservation of the WCPO skipjack stock.

e. Does the proposal affect SIDS domestic access to resources and development aspirations?

The proposal should not adversely affect SIDS domestic access to resources and development aspirations. The proposal will contribute to effective management and conservation of the WCPO skipjack stock which should enhance SIDS domestic access to resources and promote development of sustainable fisheries for skipjack to the benefit of SIDS.

f. What resources, including financial and human capacity, are needed by SIDS to implement the proposal?

SIDS will need assistance in the further development and application of the precautionary approach to the conservation and management of skipjack tuna, including the application of the Target Reference Point that is adopted. This is a recognised priority, with assistance already being provided by the SPC, FFA, the PNAO and the WCPFC through a range of workshops and technical advisory activities, including the WCPFC Management Objectives Workshops, supported also by Australia, GEF, Pew, WWF and the World Bank. Work in this area will need to continue to be recognised as a priority.

g. What mitigation measures are included in the proposal?

Not applicable

g. What assistance mechanisms and associated timeframe, including training and financial support, are included in the proposal to avoid a disproportionate burden on SIDS?

Current and projected programmes of assistance are expected to meet the needs for training and technical assistance, provided the current priority is maintained.

DRAFT

CONSERVATION AND MANAGEMENT MEASURE ON A TARGET REFERENCE
POINT FOR SKIPJACK TUNA

Conservation and Management Measure 2014-XX

The Western and Central Pacific Fisheries Commission (WCPFC):

Recalling that the objective of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (the Convention) is to ensure through effective management, the long-term conservation and sustainable use of the highly migratory fish stocks of the Western and Central Pacific Ocean in accordance with the 1982 Convention and the Agreement;

Recalling that Annex II 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) sets out guidelines for the application of precautionary reference points in conservation and management of straddling fish stocks and highly migratory fish stocks

Recalling also that in article 5 (c) of the Convention, members of the Commission have committed to apply the precautionary approach in accordance with the Convention and all relevant internationally agreed standards and recommended practices and procedures,
REFERENCE POINTS

Further recalling that Article 6 1 (a) requires members of the Commission in their application of the precautionary approach to apply the guidelines set out in Annex II of the Agreement and determine, on the basis of the best scientific information available, stock-specific reference points and the action to be taken if they are exceeded;

Noting the importance of the adoption of Limit Reference Points and Target Reference Points for certification of WCPO tuna fisheries as sustainable;

Desiring to make progress on the development of a harvest strategy for fisheries for skipjack tuna through the adoption of Target Reference Point for this stock;

Adopts, in accordance with Article 10 of the Convention, the following conservation and management measure on a target reference point for skipjack tuna.

1. The target reference point for the WCPO skipjack tuna stock shall be 50 per cent of the estimated recent average spawning biomass in the absence of fishing, $SB_{F=0,t1-t2}$.
2. The time window to be used in estimating the recent average spawning biomass in the absence of fishing shall be the same as that adopted by the Commission for the limit reference point for skipjack tuna, i.e.
 - a) have a length of 10 years;
 - b) be based on the years $t1=y_{last}-10$ to $t2=y_{last}-1$ where *y_{last}* is the last year used in the assessment;
and
 - c) be based on the most recent skipjack stock assessment model estimates of recruitment that have been adjusted to reflect unfished conditions according to the stock recruitment relationship.
3. Until the next skipjack stock assessment, the target reference point value shall be 50% of $SB_{F=0,2002-2011}$.
4. Conservation and management measures adopted by the Commission shall aim at maintaining the skipjack tuna stock at the target reference point level on average.
5. The Scientific Committee shall apply the target reference point in its assessment of the status of the WCPO skipjack stock and in reporting to the Commission on management advice and implications for this stock.
6. At its 12th annual session, the Commission shall consider advice from the Scientific Committee and the Technical and Compliance Committee on the formulation of harvest control rules and a harvest strategy for fisheries targeting WCPO skipjack in accordance with CMM 2014/xx².
7. The Target Reference point may be reviewed by the Commission, if appropriate, following the next full assessment of the skipjack stock.

² This reference is to the proposal by Australia for a CMM on Establishing a Harvest Strategy for key tuna species in the WCPO.