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Proposal for a Revised Target Reference Point for South Pacific Albacore

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South Pacific Group¹ CCMs and Australia

¹ Cook Islands, Fiji, Niue, Samoa, Tonga, and Vanuatu

1 November 2023

Rhea Moss-Christian
Executive Director
Western and Central Pacific Fisheries Commission
PO Box 2356, Kolonia
Federated States of Micronesia

Dear Executive Director Rhea Moss-Christian,

Proposal for a Revised Target Reference Point for South Pacific Albacore¹

This proposal is made on behalf of the 6 members of the South Pacific Group (SPG)² and Australia. It was first presented at the Western and Central Pacific Fisheries Commission (WCPFC) South Pacific Albacore Roadmap Intersessional Working Group (SPA-IWG) on 5 May 2023 ([SPA-RM-IWG04/WP-03](#)) and we have consulted widely with interested CCMs since this time. It is now proposed for adoption by WCPFC20.

The SPG, along with other members of the FFA, regard the current iTRP that seeks to achieve longline catch rates 8% higher than those in 2013 (most recently estimated at 0.68 SB/SB_{F=0}) as unrealistic. Our understanding of the status of the stock of south Pacific albacore has changed in the five years since the iTRP was adopted and we consider that the catch cuts required to achieve this iTRP are not acceptable to SPG members nor to the wider Commission membership. We note that FFA members in delegation paper “WCPFC19-2022-DP03-FFA position on key issues for WCPFC19” have stated this in clear terms.

As we are due to adopt a management objective for South Pacific albacore at WCPFC20, the SPG plus Australia are proposing a revised iTRP that is more realistic and achievable and does not require excessive and economically counterproductive catch reductions.

The proposed interim target reference point is the estimated average depletion³ of the South Pacific albacore tuna stock over the period 2017-2019 (SB₂₀₁₇₋₂₀₁₉/SB_{F=0}).

According to the most recent stock assessment (2021) this depletion level is estimated at 0.49 SB/SB_{F=0} in the WCPFC-CA. For clarity, this iTRP is defined according to the reference period and not a depletion level. It is noted that the depletion value may change as the stock assessment is updated along with our perception of depletion over 2017-2019.

A more detailed rationale for this proposal is provided below, but the proposal generally reflects a shift in objectives away from purely catch rates and guaranteed viability of every vessel or fleet to now also considering the economic benefits of distant-water or foreign fleet as well as domestic fleet activity within EEZs and the need for catches to support this. We consider that an iTRP associated with the reference years of 2017-2019 is a recent period that is relatable, achievable and will bring economic and sustainability benefits to all Commission members that catch south Pacific albacore.

¹ Prepared without prejudice to the positions of SPG Member CCMs individually or collectively

² Cook Islands, Fiji, Niue, Samoa, Tonga, and Vanuatu

³ Spawning potential depletion refers to the estimated spawning potential as a percentage of the estimated spawning potential in the absence of fishing (i.e., the unfished spawning potential). The metric is dynamic and is estimated for each model time step.

1. The proposed iTRP is associated with a reasonable level of average catch over the long term, around 60,000 t in the WCPO. This compares with the current iTRP that is associated with average catches close to 30,000 t over the long term in the WCPO which would require excessive and economically counterproductive catch reductions that are unrealistic (see Annex 1).
2. The 2017-19 reference period used in the iTRP is a recent 'known quantity' in terms of fishery performance and represents a period of relatively stable CPUE and reasonable economic performance in terms of domestic and foreign fishing activity amongst SPG members. It also avoids any fishery impacts that could be associated with the COVID 19 pandemic from 2020 onwards.
3. The proposed iTRP is defined according to a reference set of years and not in more absolute terms such as a biomass depletion percentage. Specific depletion levels are susceptible to changes in our perception of stock status that occurs with each successive stock assessment or between the stock assessment and the set of operating models used to develop a management procedure. Using a reference year approach provides a level of future proofing of the iTRP and gives it independence from any one assessment model. The proposed iTRP also references multiple years instead of one year thereby increasing robustness against single year peculiarities or estimation issues.
4. The proposed iTRP represents a deliberate shift away from using vulnerable biomass (a proxy for CPUE) to instead using spawning stock biomass ($SB/SB_{F=0}$) within the reference period. Analyses suggest that the two quantities tend to vary together (strong correlation), therefore the iTRP based on spawning stock biomass in 2017-19 still has strong relevance in terms of CPUE - with stock conditions including CPUE during the reference period comprising a component of the target choice (see dot point 1). The shift to spawning stock biomass is also technically simpler, easier to understand and more consistent with other measures used in the WCPFC.
5. The proposed iTRP currently provides for a sufficient 'buffer' to avoid unacceptable risks of breaching the adopted Limit Reference Point (LRP). On the basis of the information available at the moment (constant catch projections) the proposed iTRP is associated with a 17% risk of breaching the LRP (Annex 1). It is noted that the WCPFC requires that adopted harvest strategies have risks no greater than 20%. However, the SPG note that the actual LRP risk will be reassessed when candidate management procedures that achieve this iTRP are tested through management strategy evaluation in 2024.

We recognise that there is some technical and scientific uncertainty pertaining to the projected recruitment dip and the suitability of the current OMs. At the same time, we do not wish to be overly constrained by this scientific uncertainty for making progress on the management of South Pacific Albacore and development of this integral component of harvest strategy development. Hence, we propose that the TRP be clearly flagged as interim and that it be subject to review and finalisation following the 2024 stock assessment and further development of candidate MPs in 2024.

We offer the following proposed SPA TRP Commission Adoption Language:

Proposed SPA TRP Commission Adoption Language

WCPFC20 agreed on an interim target reference point (iTRP) for south Pacific albacore specified as the estimated average spawning potential depletion of the stock over the period 2017-2019 ($SB_{2017-2019}/SB_{F=0}$)⁴. This supersedes an earlier decision of the Commission made at WCPFC 15 (paragraphs 207 to 212).

The Commission shall amend or develop appropriate conservation and management measures to implement a management procedure, developed in accordance with CMM 2022-03, with the ultimate objective of maintaining the south Pacific albacore stock at the interim target reference point, on average.

The Scientific Committee shall refer to this interim target reference point in its assessment of the status of the WCPO south Pacific albacore tuna stock and in reporting to the Commission on management advice and implications for this stock.

In recognition of some outstanding scientific issues, this iTRP shall be subject to review by the Commission following the 2024 stock assessment and further development of candidate management procedures. Subsequent to this review, the confirmed or amended iTRP will again be adopted by the Commission within a Conservation and Management Measure that specifies a management procedure for South Pacific albacore tuna⁵.

We look forward to constructive and productive dialogue and adoption of this proposal at WCPFC20. We welcome any inquiries on the issues raised above, which can be directed to myself (roseti.imo@maf.gov.ws) and the SPG Technical Adviser, Lars Olsen (olsenpacific@gmail.com).

Yours sincerely



Roseti Imo, Chair (Samoa)
South Pacific Group

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Technical definitions:

Spawning potential depletion refers to the estimated South Pacific albacore spawning potential as a percentage of the estimated spawning potential in the absence of fishing (i.e., the unfished spawning potential). The metric is dynamic and is estimated for each model time step.

The method to be used in calculating spawning potential in the absence of fishing ($SB_{F=0}$) shall be:

- a. $SB_{F=0}$, t_1 - t_2 is the average of the estimated spawning potential in the absence of fishing for a time window of ten years based on the most recent South Pacific albacore stock assessment, where $t_1=y-10$ to $t_2=y-1$ where y is the year under consideration; and
- b. The estimation shall be based on the relevant estimates of recruitment that have been adjusted to reflect conditions without fishing according to the stock recruitment relationship.

⁵ i.e., the final TRP will be embedded in the management SPA procedure CMM in a similar way to what was done for skipjack (CMM2022-01).

Annex 1 – Updated SPC Analyses to inform south Pacific albacore objectives and the TRP

Scenario	Depletion			Vulnerable biomass		Approximate catch			F/F _{MSY}
	Long-term avg SB/SB _{F=0} (WCPFC-CA)	SB/SB _{F=0} rel. 2017-2019	Risk < LRP	VB rel. 2013+8%	VB rel. 2017-2019	Catch scalar	WCPFC-CA	Remainder EPO	Risk F > F _{MSY}
	0.32	-37%	38%	-53%	-36%	1.14	82,300	15,600	26%
	0.39	-20%	28%	-43%	-21%	1.03	74,000	15,600	18%
	0.41	-17%	26%	-41%	-18%	1.00	72,200	15,600	17%
	0.47	-4%	19%	-33%	-7%	0.90	65,000	15,600	14%
SB/SB_{F=0} 2017-19	0.49	0%	17%	-30%	-3%	0.86	62,500	15,600	12%
	0.51	3%	16%	-28%	0%	0.84	60,500	15,600	12%
	0.53	8%	14%	-25%	4%	0.80	57,800	15,600	10%
	0.58	18%	9%	-18%	14%	0.71	51,300	15,600	7%
	0.60	23%	6%	-15%	18%	0.66	47,800	15,600	5%
	0.64	30%	4%	-10%	25%	0.60	43,300	15,600	3%
	0.69	40%	1%	-3%	35%	0.50	36,100	15,600	0%

This analysis is provided in paper [WCPFC-SC19-2023/MI-WP-03](#), table 1. It applies the set of 72 models in the grid (from the 2021 stock assessment) weighted according to SC 2021 recommendations (with Seapodym movement down weighted). There are 100 replicates (iterations) per model. Model runs that generate Nas in the results are interpreted as the stock crashing during the projection period whereas previously NA runs were excluded from the summary results.

The proposed iTRP is highlighted in green.

Annex 2 – Application of CMM 2013-06

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 fishing south of the equator will be required to implement this proposal in their cooperation to apply the iTRP for south Pacific albacore tuna.

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 south Pacific albacore tuna in the Convention Area. The impact will be greatest on SIDS in whose waters fishing for south Pacific albacore tuna partly takes place, and who are, in many cases, substantially dependent on fisheries targeting albacore for their sustainable development. The impact on those SIDS will depend on how the Commission applies the iTRP south Pacific albacore tuna, noting the harvest strategy approach is still in progress and a new stock assessment for south Pacific albacore is due in 2024. It is important that implementation of harvest strategies shall not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States, and territories and possessions. To the extent that the application of the iTRP improves the management of the fisheries for south Pacific albacore tuna in the Convention Area, those SIDS will benefit. However, if the application of iTRP does not work as anticipated, those SIDS could potentially face severe economic losses, which is addressed by the “interim” nature of the proposal.

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

Yes, how the shared south Pacific albacore tuna stock is managed by the IATTC in the Eastern Pacific Ocean has a significant impact on the effectiveness of any management intervention taken by the WCPFC. Cooperation with IATTC on the management of south Pacific albacore will help reduce the burden of management of this stock.

d. Does the proposal affect development opportunities for SIDS?

The proposed iTRP is designed to improve decision-making management and conservation for south Pacific albacore tuna fisheries by having a pre-agreed target for how fishing will be adjusted as the harvest strategy is implemented. If effective, the proposal could enhance development opportunities for those SIDS substantively engaged in the south Pacific albacore tuna fisheries. The interim nature of the proposal is designed to provide an approach for the Commission to explore the application of a south Pacific albacore tuna Management Procedure while avoiding those potentially severely adverse outcomes.

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

As noted above, the proposal has the potential to contribute to maintaining and increasing the

value of fisheries for south Pacific albacore tuna, including the artisanal and purse seine fisheries in a way that would enhance SIDS domestic access to resources and promote development aspirations.

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

The harvest strategy approach is recognised as complex and demanding, and effective participation in this process is challenging. This is a recognised priority, with assistance already being provided by the SPC, FFA, and the WCPFC, through a range of workshops and technical advisory activities. Work in this area will need to continue to be recognised as a priority. However, capacity building assistance by itself is not sufficient. There is a need to also ensure that harvest strategy activities are integrated into the Commission's programme in a way that does not increase the burden of overall participation in Commission activities on SIDS.

g. What mitigation measures are included in the proposal?

The mitigation measure included in the proposal is:

- The interim nature of the proposed iTRP is designed to enable further development of the south Pacific albacore tuna Management Procedure in a way that might avoid some of the potentially more severe adverse effects noted above, and which recognises the complexity of the work and the time and effort needed to participate in it effectively.
- Any further components for the development of a harvest strategy following this proposal will also be subject to a 2013-06 assessment and consideration of the special requirement of SIDS.

h. 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.