



**Development of a Revised Tropical Tuna Measure Workshop 4**  
29 to 30 September 2023  
Pohnpei, FSM, and online

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**Information Paper on Progressing Development of an  
Allocation Framework alongside Harvest Strategies in the WCPFC**

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**WCPFC-TTMW4-2023-IP02  
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**Prepared by the Secretariat**

1. The purpose of this paper is to support discussions relating to the Commission's ongoing development of harvest strategies and the linkages to development of an allocation framework. The link between harvest strategies and allocation may not be immediately clear, but as the Commission turns to implementation of the [Management Procedure \(MP\) for Skipjack Tuna \(CMM 2022-01\)](#), the need for a framework to guide the Commission's allocation of hard limits set by the MP is the logical next step.
2. This paper does not attempt to go into depth on the relationship or application of an allocation framework and harvest strategies. For further reading on this issue, there are a number of relevant academic papers available that have previously been submitted to the WCPFC. See for example, [WCPFC18-2021-OP10](#), and [WCPFC16-2019-OP15](#).

***Harvest Strategy Development***

3. The Commission's commitment to developing harvest strategies is reflected in [Conservation and Management Measure \(CMM\) 2022-03](#) (original [CMM 2014-06](#)). An associated Work Plan was subsequently agreed in 2015 at WCPFC12, which continues to be [updated](#) on an annual basis to reflect progress achieved each year. Recent technical progress in the WCPFC's Harvest Strategy Work Plan includes the refinement of the management strategy evaluation (MSE) frameworks for skipjack and South Pacific albacore tuna, and the continued development of the mixed fishery MSE and harvest strategy framework.
4. For South Pacific albacore, the Commission is scheduled to adopt management objectives and a revised target reference point (TRP) in 2023, and the Commission's Scientific Services Provider (SSP) continues to develop the MSE framework and candidate MPs for adoption in 2024. Development of an MP for bigeye is on-going and is proposed to define the level of tropical longline bigeye catches. All three MPs are being considered within the mixed fishery framework, which does not require an MP for yellowfin, as this stock is managed under the MPs for skipjack, bigeye and South Pacific albacore. It should be noted that the mixed fishery framework is a 'proposal' and requires further testing to determine if yellowfin is effectively managed by the MPs for the other three species.
5. At WCPFC19 in 2022, the Commission adopted an MP for WCPO Skipjack Tuna ([CMM 2022-01](#)), which contains a detailed schedule for the operation of the MP. The MP was run for the first time in 2023, and SC19 considered the results ([SC19-MI-WP-01](#)) presented by the SSP. The output from running the MP indicated that fishing opportunities be set at baseline levels specified in CMM 2022-01 for the next three years, as follows:

- a. purse seine effort at 2012 levels
  - b. pole and line effort at average 2001-04 levels
  - c. catches of skipjack in the skipjack assessment Region 5 at average of 2016-18 levels
6. An MP<sup>1</sup> is a key component of a harvest strategy framework because it defines what management actions are to be made in response to changes in the stock or fishery condition. It comprises data collection, the associated estimation method (e.g., the estimation of stock status through an analytical/model or empirical method), and a harvest control rule (a rule that defines what management actions are to be made in response to changes in the stock status).
  7. The adoption of a Skipjack Tuna MP sets the ‘overall’ limits for purse seine fishing effort that apply across EEZs and the high seas, and the processes within the adopted MP mean that a dynamic ‘overall’ limit will be set by the MP every three years. This context will need to be borne in mind through the Commission’s current work in response to paragraph 27 of the [CMM 2021-01](#) (“TTM”) on the setting of a hard limit on purse seine fishing effort in the high seas. In addition to the mixed fishery/species considerations above, the framework for allocating the proportions of an ‘overall’ purse seine effort limit between EEZs and high seas is also still pending, which is the second part of paragraph 27 of CMM 2021-01 under consideration.

#### *Development of an Allocation Framework*

8. The Commission is committed to addressing allocation through Article 8, 10(3), and 30 of the [Convention](#). The Commission first discussed [allocation](#) matters at WCPFC3 in 2006, attempting to ascertain whether the opportunity to begin a process was appropriate at the time (refer [WCPFC3 Summary Record](#), paras 118 to 122). CCMs considered that allocation was not a main priority for the Commission at that time and subsequent Commission meetings yielded similar discussions, so the Commission put its attempts at addressing allocation on hold for the next several years.
9. At WCPFC15 in 2018, the Commission revisited its allocation mandate and held substantive discussions, including making efforts to establish terms of reference for a Commission workshop to begin the process of establishing an allocation framework. Despite best efforts, the Commission was unable to agree in 2018 and 2019 to the scope of coverage on which an allocation framework should be applied.
10. The WCPFC’s tropical tuna measure (TTM) is intended as a “bridging measure”. In other words, the measure serves as an interim approach to management of the tropical tuna fisheries until full harvest strategies are developed and implemented for each of the tuna species managed under the TTM. It is also a bridge for the development of an allocation framework, as reflected in the commitments outlined in **paragraphs 27 and 41** of the measure.
11. Paragraph 27 of CMM 2021-01 relates to hard limits for purse seine fishing in the high seas only, and Paragraph 41 relates to hard limits for bigeye tuna longline catches. Under full implementation of harvest strategies, the interim skipjack MP determines the scalars relative to the skipjack fishery baselines noted in paragraph 5, above, defining the overall fishing level for each (total across EEZs and high seas).

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<sup>1</sup> The process leading to the selection of an MP involves candidate MPs being evaluated prior to adoption within a management strategy evaluation (MSE) framework through simulations. These simulations compare the likely performance of alternative MPs in meeting specified objectives for the stock and fishery. The choice of which MP to adopt is typically made by stakeholders through consideration of performance against objectives that are most important to them.

12. As noted above, bigeye catch limits for longline fisheries would be set under the bigeye MP. However, allocation of the proportions of the ‘overall’ limit on longline bigeye catch set by the MP among members and participating territories for longline fisheries, as shown in TTM-Table 3, may also require further consideration.
13. The real challenge lies in decisions around the criteria to be used in determining allocation (see [WCPFC-TTMW4-2023-IP01](#)), in addition to determining how each criteria should be applied or weighted. An effective framework is heavily dependent on reaching agreement on these two aspects of allocation. Furthermore, it is important to consider how any criteria are applicable across stocks and fisheries, and whether different criteria are required depending on the stock/fishery context. With MPs starting to come online for the Commission, the opportunity to progress allocation discussions is imminent.

***Allocation of hard limits set by the MP for skipjack***

14. The skipjack MP ([CMM 2022-01](#)) is designed to provide recommended scalars off baseline levels of effort or catch (noted in paragraph 5, above). The MP is run every three years and reviewed by the Scientific Committee, which then provides advice to the Commission on the outputs of the MP, which in essence is a recommended maximum level of overall effort for the purse seine fishery, overall effort for the pole and line fishery, and the overall skipjack catches in Region 5 of the skipjack assessment.
15. The outputs of the MP are expected to be ‘taken into account’ in a review of the TTM by the Commission every three years. Confirmation of what the expectations of CCMs are in terms of what ‘taken into account’ means for the TTM review may be required. It should also be noted that the specification of the baselines within the skipjack MP is a quasi-allocation between the purse seine, pole and line, and Region 5 fisheries.
16. The skipjack MP does not consider allocation within each of the three fishery components specified in the baselines. As such, aspects such as allocation of the total recommended purse effort by the MP require further consideration.