



COMMISSION
SECOND BIGEYE TUNA MANAGEMENT WORKSHOP (BMW02)

1 – 2 October 2026
Honolulu, Hawaii (Hybrid)

Summary Report

WCPFC-BMW02-2026-00

12 October 2026

AGENDA ITEM 1. OPENING OF THE MEETING

1. The Second Bigeye Tuna Management Workshop (BMW02) was convened in Honolulu, Hawaii, on 1 and 2 October 2026 in a hybrid format. The Chair welcomed participants, thanked the United States for hosting, and acknowledged those participants who had travelled directly from the 22nd Technical and Compliance Committee (TCC22), which had concluded in Pohnpei on 29 September.
2. The host delegation welcomed participants to the United States and the State of Hawaii, thanked the WCPFC Secretariat for the meeting arrangements and the Pacific Community (the SSP) for the technical documentation, and expressed the hope that the discussions would be productive.
3. The Chair introduced the Hawaiian concept of *lawa*—taking what is needed while leaving enough for others and future generations—and invited participants to keep this principle in mind when considering the bigeye management procedure (MP).
4. The Chair recalled that BMW02 aimed to narrow the options for a bigeye MP and provide further guidance to the SSP ahead of the 23rd Regular Session of the Commission (WCPFC23) in early December. The Chair then outlined the proposed two-day work programme.
5. Several CCMs thanked the host, Secretariat, and SSP, while noting limited preparation time, late papers, visa difficulties, and scheduling constraints affecting in-person participation. CCMs nevertheless expressed their commitment to constructive engagement.
6. The provisional agenda ([WCPFC-BMW02-2026-02_Rev02](#)) was adopted without amendment.

AGENDA ITEM 2. PROGRESS SINCE BMW01 AND OUTCOMES OF SC22

7. The SSP presented (WCPFC-BMW02-2026-[WPO1](#)), outlining the key decisions and timeline for adoption and implementation of the bigeye MP. The SSP recalled relevant outcomes of BMW01 and SC22, including revision of the Operating Model (OM) grid and further testing of the estimation method ahead of the special session of the Scientific Committee, scheduled for late November just ahead of WCPFC23.
8. Four areas and fleets of application and four TRP options were under evaluation. Testing had proceeded on the basis of a three-year management period with a two-year data lag, longline catch and purse seine FAD open period as the principal outputs, three HCR pairs, fixed recent catches for

fisheries outside MP control, and treatment of the overlap area as an implementation issue. Participants were informed of the need for BMW02 to narrow the spatial, TRP, and HCR options and consider how the longline–purse seine trade-off would be negotiated in each management period, together with relevant baseline and robustness assumptions. The special SC session would review the OM grid and estimation method, while WCPFC23 would be invited to adopt the areas and fisheries of application, TRP, and HCR formulation. The estimation method would then be run in 2027, with the resulting HCR inputs reviewed by SC23, followed by adoption of implementing arrangements.

9. During discussions, the need for greater clarity on which issues required management direction and which required further scientific review was highlighted, together with the need to prioritise additional analysis according to its usefulness for WCPFC23. The Chair clarified that the special SC session would be limited essentially to the bigeye OMs and estimation method, together with certain Pacific bluefin tuna matters, and that the decision points before BMW02 were primarily management matters.

10. Several CCMs reiterated their request that the evaluations include, for spatial scenario 4 (*WCPO wide - excluding SIDs, implementation through the TT-CMM*), an MP outputting scalar to be applied to the TTM longline bigeye catch limits and FAD closure durations. While BMW01 had agreed that HCR outputs should be catch and FAD closure duration, it was recalled that a scalar-based approach had formed part of the original proposal recorded at WCPFC22, and the expectation was expressed that this option would be included in the evaluations presented to the Commission at WCPFC23.

11. For the modelling undertaken by the SSP, clarification was sought on whether exclusion of the Hawaii longline fishery applied only within the Hawaii EEZ or also to high seas catches. The SSP confirmed that the total catch of the fleet, including high seas catches, had been excluded from MP control in that scenario. A CCM explained that the fleet straddles the 20°N boundary, with only a small proportion of its catch taken south of that line, and that managing it under different spatial arrangements would complicate management. That CCM noted that the assumed catch for the excluded fleet was its current limit of 6,554 tonnes and recalled that the scenario reflected a compromise reached at BMW01 following earlier discussion of alternative latitudinal boundaries.

12. In response to questions on the representation of Indonesian domestic fisheries in the data under discussion, the SSP explained that they followed the fishery groupings of the 2023 stock assessment, comprising small-scale and larger-scale fisheries including handline and ring-net fisheries, and that robustness testing of alternative historical catches was intended to capture uncertainty arising from recent changes in catch levels and in the apportionment of catch among fishery components.

13. Further questions to the SSP addressed whether the revised OM grid had changed the relative differences among TRP and spatial options, the sensitivity of longline HCR levels to fixed catch assumptions, and whether combinations achieving the same TRP carried similar risks of falling below the limit reference point (LRP). The SSP indicated that preliminary analysis suggested the revised OMs had affected more than the estimated depletion level, including the spatial distribution of recruitment, with further information to be presented to the special SC session. The SSP confirmed that higher fixed catches outside MP control would leave less catch for MP-controlled fisheries, and vice versa, that

those catches had been fixed at recent levels, and that LRP risk for each combination was shown alongside catch estimates in the revised nuclear grid tables.

14. Outcome:

BMW02 noted WCPFC-BMW02-2026-WP01 and the summary of progress since BMW01 and of the outcomes of SC22. The SSP was requested to include in the evaluations forwarded to WCPFC23, under new spatial scenario 2 (WCPO-wide, excluding SIDS and Territories, consistent with the exemptions under the TTM), including an MP option producing output scalars to be applied to the existing TTM longline bigeye catch limits and FAD closure durations.

AGENDA ITEM 3. SCIENTIFIC BASIS AND EVALUATION OF CANDIDATE MANAGEMENT PROCEDURES

3.1 Operating model framework and robustness testing and estimation method

15. The SSP presented WCPFC-BMW02-2026-[WP02](#) on the revision of the OMs requested by SC22. Although SC22 did not reach consensus on acceptance of the 2026 bigeye stock assessment, the assessment analyses indicated a more depleted stock status and a greater probability of low stock levels than represented in the previous OM grid. SC22 therefore requested that the OM grid be expanded to cover the plausible lower-depletion range indicated by those analyses. The revised OMs formed the basis for the evaluations presented to the workshop. The Chair clarified that technical advice on the OMs was not being sought at BMW02, as a full technical review would be undertaken at the special session of the Scientific Committee in late November.

16. Support was expressed for the revised OM reference grid, which was considered to provide much better coverage of the more depleted conditions indicated by the 2026 assessment, including scenarios below the LRP of 0.2 of unfished spawning biomass, and to substantially address the main concern raised by SC22. Support was expressed for its use in the further refinement and evaluation of candidate MPs and for keeping work on track toward formal approval of the OM reference set prior to WCPFC23. It was also noted that the revised grid better reflected the range of stock conditions indicated by the 2026 assessment analyses.

17. In response to a question on whether the expansion of the grid had required changes to the estimation method, the SSP explained that the OMs were based on the inputs, settings and MULTIFAN-CL software of the stock assessment, whereas the estimation method was a separate Stock Synthesis implementation of an age-structured production model. An updated method presented to SC22 had since been retested against the revised OMs, with results to be presented to the special SC session.

18. Questions were raised as to which fisheries were under MP control and, in particular, which Indonesian fisheries were treated as external, what baseline and alternative catch levels would be used for external fisheries, and whether domestic fisheries of Viet Nam were included. The SSP explained that inclusion varied by scenario, but that the domestic fisheries of Indonesia and the Philippines in archipelagic waters were excluded from the MP and considered under domestic arrangements, as were Vietnamese domestic fisheries falling within that category. Their future catches were based on recent average catches, a period reflecting changes in overall catch levels and in the split among fishery groupings, notably a substantial shift in Indonesian handline catches from

small-scale to large-fish handline fisheries. The SSP noted that the impact of alternative assumptions had not been large under the previous grid but that the tests would be repeated under the revised grid.

19. In response to a question as to whether status quo projection runs remaining below the LRP were concentrated in particular parts of the uncertainty space, the SSP advised that, on present analysis, the lower range was occupied not by a small subset of OMs but by a range of model settings that periodically dipped below the LRP and then recovered.

20. **Outcome:**

BMW02 noted [WCPFC-BMW02-2026-WP02](#) and the revisions made to the bigeye OM grid in response to SC22. Support was expressed for using the revised OM grid as the basis for the further refinement and evaluation of candidate MPs, noting that the technical review and formal approval of the OM reference set and the retesting of the estimation method would be undertaken at the Special Session of the Scientific Committee prior to WCPFC23.

BMW02 noted that further robustness testing would be undertaken for the refined candidate MPs, including sensitivity to alternative assumptions for catches in fisheries outside MP control.

3.2 Management Procedure design

21. The SSP presented WCPFC-BMW02-2026-[WP03](#) and [WP04](#), explaining how previous guidance had shaped the candidate MP designs. This included HCRs similar to those for skipjack and South Pacific albacore; control of both purse seine and longline elements, with the fisheries depending on the spatial range; TRPs defined as targets or thresholds; and a negotiated purse seine–longline trade-off, interpreted by the SSP as occurring every three-year management period. For domestic fisheries of Indonesia, the Philippines, and Viet Nam, bigeye catch was derived from effort consistent with the skipjack MP.

22. The SSP described the HCR as comprising a central plateau around the TRP, termed the Hillary Step, on which settings remain stable; a descending limb to the left, on which fishing is progressively reduced to a baseline below the LRP; and scope for increased fishing at higher stock levels. The input is estimated spawning biomass relative to 2012–2015 from the estimation method, while the outputs are longline catch and purse seine FAD open period, expressed so that both move in the same management direction. Each HCR pair is designed to achieve the relevant TRP, with the height of the Hillary Step depending on both the spatial range and the TRP.

23. The SSP explained that the nuclear grid in Figures 6 – 13 of WCPFC-BMW02-2026-WP03 shows long-term stock status for combinations of longline catch and FAD open period, with shading indicating achievement of the TRP at the 50%, 60%, or 70% level and red cells identifying combinations with greater than 20% risk of falling below the LRP. The boundary combinations achieving a given TRP form the “arc of possibilities”, from which longline-favoured, intermediate, and purse seine-favoured HCR pairs had been selected within the Commission’s requested range of zero to three months of FAD closure. The SSP noted that the grids were based on 30-year constant-fishing projections rather than full MSE runs and were specific to each spatial range. The SSP emphasised that BMW02 needed to reduce the options, ideally to one spatial range and TRP, or at most one or two of each, given the limited time available for further analyses before WCPFC23.

24. Clarification was sought on the status quo longline catch assumed in the nuclear grid, noting that the status quo FAD open period was 10.5 months in EEZs and 9.5 months on the high seas. The SSP explained that no status quo longline assumption was used; the grid identified the longline catch which, with a given FAD open period, would achieve the depletion defined by the TRP. As projections at recent longline fishing levels resulted in stock status above 2012–2015 levels, a TRP 6% below that level implied longline catches higher than recent levels, while the 60% and 70% thresholds implied progressively lower catches. The longline axis referred only to the longline component under MP control in each scenario, with other fisheries held at recent levels or at the levels specified for the Hawaii longline fishery.

25. The revised nuclear grids, highlighting combinations with elevated LRP risk, were welcomed as helpful in understanding the trade-offs between longline catch and FAD open periods. Several CCMs expressed a view that the bigeye MP should be designed for immediate implementation through the TTM, as the only mechanism capable of achieving the intent of paragraph 42 of that measure, avoiding years of allocation negotiations and allowing implementation in time to avoid market repercussions. It was suggested that the spatial application, the TRP and the HCR design be considered together in narrowing the options.

26. In response to a question on criteria for narrowing the options, the Chair indicated that none had been agreed and that the process would be driven by the views of CCMs. The SSP added that the only established criterion was that any MP with a greater than 20% risk of falling below the LRP would be discarded, and that no candidate MP exceeded that threshold. The SSP clarified the four spatial application scenarios, noting that the fourth option had been requested at SC22 and was designed to align as closely as possible with the current Tropical Tuna Measure (TTM). The SSP clarified that the tropical longline scenario comprises all longline fisheries between 20°N and 10°S; the second scenario excludes the Hawaii longline fishery south of 20°N; the WCPO-wide scenario comprises all longline fisheries in the western and central Pacific Ocean excluding the overlap area, which is excluded from all scenarios for modelling; and the TTM scenario comprises all WCPO longline fisheries other than those exempted under the TTM, with fleets catching less than 2,000 tonnes implicitly fishing at recent levels.

27. The SSP confirmed that the marginal trade-off between longline catch and FAD open period was not constant along ‘the arc of possibilities’, but depended on the position along the arc and the TRP.

28. The SSP was commended for its responsiveness to BMW01 and SC22, while it was noted that some requested products, particularly certain performance indicators, were outstanding. The SSP explained that MSY-based indicators had proved more challenging than anticipated, as the MSE software differs from MULTIFAN-CL and consistency must be ensured, and that priority had been given to results for the scenario requested at SC22. Information was requested on how assumed future longline catches of SIDS fleets compared with recent levels, which the SSP indicated could be drawn from material previously provided to SC. A question was also raised on how results might change if a single FAD closure period applied across EEZs and the high seas; the SSP indicated that this could be accommodated by interpolation and was a matter for managers, and it was clarified that this was not a formal request at this stage.

29. In response to a question as to whether combinations achieving the TRP in the nuclear grid might breach the LRP threshold under the wider uncertainty of the MSE, the SSP explained that the grid projections included recruitment uncertainty but held fishing constant at the grid-specified levels, with purse seine effort at 2012 levels consistent with the skipjack MP, and that the risk outcomes would be clearer from the full MSE results. The SSP also confirmed that, within the MSE testing, the Commission could in theory select a combination at one extreme of the arc in one management period and at the opposite extreme in the next, within the Commission specified range.

30. **Outcome:**

BMW02 noted WCPFC-BMW02-2026-WP03 and WP04 and the explanation of the design of the candidate bigeye MPs, including the use of the nuclear grid and the “arc of possibilities”. BMW02 requested the SSP to provide information on the assumed future longline catches of SIDS and Territories fleets relative to recent levels.

3.3 Performance of candidate management procedures

31. The SSP presented WCPFC-BMW02-2026-[WP05](#), supported by Information Papers 1 and 2 (WCPFC-BMW02-2026-[IP01](#) and [IP02](#)) on HCR parameters and performance indicators. Based on the revised OMs, the SSP had updated the nuclear grids and HCR designs, producing 16 sets of results for the four spatial scenarios and four TRPs, each with longline-favoured, intermediate, and purse seine-favoured pairs. Under the three-year period and two-year lag, an MP run in 2027 would use data to 2025 and set fishing levels for 2028–2030. Allocation was not explicitly addressed; the longline catch output could be implemented through effort controls where needed; and conversion to scalars might be possible but required further consideration. To reflect negotiation every three years, the evaluations randomly selected among the three pairs in each period, with boundary cases applying only the longline-favoured or only the purse seine-favoured pair also evaluated.

32. All candidate MPs, across all TRPs and spatial scenarios, maintained a probability greater than 80% of remaining above the LRP in the long term. The risk of falling below the LRP was about 11-12% for the lower TRP and about 4-5% for the TRPs implying a less depleted stock, the higher overall risk reflecting the expanded OM grid. As the HCRs reduce fishing in response to declines in estimated status, achieved depletion was generally slightly above the TRP. The 70% threshold on the lower TRP resulted, on average, in a larger stock than the upper TRP. Biological differences among spatial scenarios were small, the main differences arising in impacts on the fisheries controlled.

33. The lower TRP implied higher average longline catches, while differences in purse seine bigeye catch among TRPs were much smaller. Total catch was about 10,000 tonnes higher on average under the lower TRP than under the 70% threshold. Tropical-region vulnerable biomass, a proxy for catch rates, was projected below 2019–2021 levels in all scenarios, reflecting the trade-off of higher catches against lower catch rates. Catch and effort variability results were not presented, being strongly influenced by the assumption that HCR pairs could change between periods, and no constraints on change between periods were currently modelled. The SSP cautioned that fishery indicators should be interpreted with care, as different fisheries were controlled under different scenarios and results partly reflected assumptions for fisheries outside the MP.

34. The results were welcomed as useful. It was emphasised, however, that small differences in purse seine bigeye catches did not necessarily mean small impacts on the purse seine fishery, as

changes in FAD closure periods could substantially affect total purse seine catch. Previous analyses had indicated a loss of about 30,000 tonnes per FAD closure month, including skipjack and yellowfin. The SSP confirmed that the catches presented related only to the bigeye component of FAD-associated catch.

35. Asked whether the material presented would form the substantive basis for selecting an MP at WCPFC23, the SSP indicated that further work could include sensitivity analyses on fisheries outside MP control, to ensure the MP would not enter exceptional circumstances if future catches differed from assumptions, and possible evaluation of alternative HCR shapes, and stressed that narrowing the options was necessary both to complete this work and to present results usefully to the Commission.

36. The SSP further confirmed that vulnerable biomass was presented for the tropical region as a proxy for tropical longline catch rates; that HCR catch limits were assumed fully taken in each period; and that the catches of Indonesian and Philippine domestic fisheries, assumed at 2016–2018 effort levels, were not included in the catch figures shown.

37. One CCM emphasised the importance of understanding the sensitivity of outcomes for MP-managed fisheries to assumptions for fisheries outside MP control and requested that future analyses show changes in MP-managed fishery outputs under plausible variations in those assumptions. The SSP described this as a key question not yet answered and confirmed that, if prioritised, the sensitivity analyses could show the relative impact on longline and purse seine fisheries under MP control.

38. One CCM observed that the choice of TRP affected depletion, total catch and vulnerable biomass, and appreciation was expressed for the approximate relative depletion levels provided for the threshold TRPs, showing the 60% threshold between the lower and upper TRPs and the 70% threshold above the upper TRP. The ability of all options to maintain spawning biomass above the LRP with greater than 80% probability was viewed positively. Questions were raised on trade-offs under the boundary cases, the use of 2019–2021 as the reference period when the management objective was defined relative to 2012–2015, and what could be provided before WCPFC23, including MSY-based indicators and fishery impact analyses. The SSP explained that the boundary cases produced the expected outcomes; that the 2019–2021 baseline was a legacy of earlier work, consistent with the OMs and previous evaluations of the tropical tuna measure, although other baselines could be calculated; and that conventional fishery impact plots would not be tractable, as each nuclear grid cell represented at least 1,152 models, but that the spreadsheet product provided to SC22 could be updated for the revised OMs. Interest was expressed in such a product.

39. Concern was raised that projected vulnerable biomass appeared substantially below 2019–2021 levels, in some cases by up to 50% in the long term. The SSP advised that the results were best interpreted in relative terms; that the absolute decline depended on assumptions on recruitment distribution and movement among regions and might be exaggerated; but that a decline was expected given that the candidate TRPs were below recent stock levels.

40. Information was sought on the share of total fishery impact attributable to the domestic fisheries of Indonesia and the Philippines, noting their substantial share of bigeye catches and their catch of predominantly smaller fish. The SSP indicated that, from impact plots presented to SC22, the miscellaneous fisheries in Indonesia, Philippines and Viet Nam area appeared to account for about 10% of recent depletion, without distinguishing components under skipjack MP control from those in

archipelagic waters, and undertook to extract more specific estimates, noting that these would not indicate future impacts. These figures were provided in [WCPFC-BMW02-2026-IP04](#).

41. One CCM considered that, before narrowing the options, further consideration should be given to the sensitivity of results to fisheries not directly controlled by the MP, fleet behavioural responses and the assumptions representing negotiation between HCR pairs. That CCM emphasised that MP selection should not prejudice subsequent allocation discussions, including the interests of developing coastal States, while supporting further evaluation of a limited number of options provided these uncertainties and considerations were adequately captured.

42. **Outcome:**

BMW02 noted [WCPFC-BMW02-2026-WP05](#), IP01 and IP02 and the results of the evaluation of candidate bigeye MPs, including that all candidate MPs evaluated maintained a probability greater than 80% of remaining above the LRP in the long term.

BMW02 requested the SSP to complete the outstanding MSY-based performance indicators for the refined candidate MP evaluations for consideration at WCPFC23 (noting the subsequent prioritization of work under Agenda Item 8).

BMW02 also requested the SSP to update the spreadsheet-based product on the relative contributions of purse seine and longline fisheries to stock depletion for the revised OMs, taking into account suggestions for its improvement, and to provide, to the extent possible, more specific estimates of the fishery impact of the domestic fisheries of Indonesia, the Philippines and Viet Nam.

Following the further narrowing of candidate MPs, BMW02 requested the SSP to undertake sensitivity analyses on assumptions for fisheries outside MP control, including the effects of plausible changes in those fisheries on the management outputs for MP-managed longline and purse seine fisheries.

BMW02 also noted the issue raised regarding possible revisions to historical catch data in the WPEA region and the need to understand the implications of material revisions for the MSE, including whether revised data could require candidate MPs to be re-evaluated.

AGENDA ITEM 4. REFINEMENT OF CANDIDATE BIGEYE TUNA MANAGEMENT PROCEDURES

43. The Chair recalled that the central objective was to reduce the options to be presented to WCPFC23, with four spatial scenarios and four remaining TRPs, and invited CCMs to state their positions. The Chair clarified that HCR shapes would be addressed under Agenda Item 5, and that this item would focus on the spatial range and the TRPs.

44. On the areas and fleets of application, strong support was expressed by several CCMs, including SIDS CCMs, for the WCPO-wide scenario excluding SIDS fleets in accordance with the TTM. It was noted that this scenario would bring under MP control the longline fisheries throughout the WCPO currently subject to TTM bigeye catch limits, providing broader coverage than the tropical options, which would leave some of those catches outside direct control. It was considered the clearest and most practical pathway to implementation within the timeframe, as an agreed scalar could be applied to the existing TTM limits, whereas the other options would likely require the Commission to establish and allocate a new bigeye catch limit for a particular area, a lengthy process likely to delay implementation. It was further suggested that this was the only scenario implementable at this point, as the others appeared designed around an allocated bigeye total allowable catch that

does not yet exist, and therefore the surest means of retaining the sustainability certification of bigeye fisheries. Commitment was expressed to working towards a bigeye allocation framework in accordance with paragraph 42 of the TTM, while recognising that this would be protracted. One CCM added that it had favoured the tropical longline option at BMW01 and now supported scenario 4 for these reasons.

45. Several CCMs expressed concern regarding the latitudinal boundaries of the tropical longline options, which could create incentives for effort to shift out of the tropical area, transferring the conservation burden onto fishing in that area and particularly onto the purse seine fishery. The lines would also create monitoring and enforcement challenges in the high seas' tropical longline fishery, described as the most weakly monitored in the region and the most susceptible to IUU fishing, and were considered inconsistent with existing arrangements under the TTM and at the national level.

46. Other views favoured the tropical longline scenarios. One CCM supported the tropical longline scenario excluding the Hawaii longline fishery, on the basis that the tropical area is where most fishery impact on bigeye occurs. A second CCM preferred the tropical longline scenario including the Hawaii longline fishery, reflecting the original design discussed at WCPFC22, with flexibility to consider special treatment for the Hawaii longline fishery if confined to its EEZ and with the WCPO-wide scenario as a second preference

47. Some CCMs supported the WCPO-wide scenario applying to all longline fisheries, on the basis that management responsibility for the bigeye stock should be broadly shared across the major longline fisheries. A tropical longline scenario including the Hawaii longline fishery was also identified as an alternative by one CCM.

48. The Chair invited consideration of whether, given the convergence of several preferences around WCPO-wide application, the WCPO-wide scenario could be removed in favour of scenario 4. One CCM considered that excluding SIDS fisheries from MP control would place a greater adjustment burden on the fisheries remaining under MP control. While recognising the special circumstances of SIDS, that CCM considered that these circumstances would be better addressed when MP outputs are translated into implementation arrangements rather than through an exemption from the MP itself.

49. Several CCMs stated that, if removal of the SIDS exemptions were contemplated, a broader set of issues relevant to a fair arrangement for longline bigeye management would also need to be addressed. These included recognition of the PNA Longline Vessel Day Scheme, independent verification of high seas fishing activity, strengthened or revised high seas transshipment arrangements, and the economic burden of the FAD closure on SIDS. Those CCMs also described the current flag-based limits in Table 3 of the TTM as inequitable. The Chair noted the distinction between the treatment of exemptions in the MP analyses and the provisions of the TTM as the implementing measure, while acknowledging the importance of the points raised. One CCM also observed that the first three spatial scenarios include SIDS fisheries within MP control, so that singling out the WCPO-wide scenario for removal would not be appropriate.

50. In a separate intervention, several CCMs emphasised that the SIDS exemption is an established element of the TTM, reflecting the Commission's recognition of the special requirements of SIDS and their right to develop domestic fisheries consistent with Article 30 of the Convention, and should be retained under scenario 4. They noted that SIDS catches were not excluded from the MSE but were included in the OMs as catches outside direct MP control, with their effects on the stock and

MP performance taken into account. Those CCMs considered that removing the exemption through the MP design would alter an existing Commission arrangement without a direct decision to renegotiate it, and that bringing SIDS fisheries under the MP would require reconsideration of the existing flag-based limits, including the attribution of catches by distant water fleets within Pacific Island EEZs. They further considered that any removal of the SIDS exemption should occur as part of a broader bigeye allocation framework, potentially including an overall catch limit and an agreed division between EEZs and the high seas similar to that for South Pacific albacore.

51. On the TRPs, some CCMs preferred retaining only target-type TRPs, achieved on average with 50% probability, and removed the threshold options, noting that targets permit more precise management and that the South Pacific albacore and skipjack TRPs are of the target type. Some of those CCMs preferred the lower TRP of 0.94 of the 2012–2015 average spawning biomass depletion, given the favourable LRP probabilities across all candidate MPs, and it was suggested that, as the Commission's first bigeye MP, the lower TRP at 50% would provide an appropriate basis while retaining a buffer for fisheries outside MP control.

52. Several CCMs proposed retaining the lower TRP at 50% and 60% probability, as the preferred stock objective balancing protection of the stock and fishing opportunities, together with the upper TRP at 50%, and to remove the lower TRP at 70% as broadly similar in results to the upper TRP. A further group of CCMs supported this proposal, highlighting that, while stock status differed little between the TRPs, the difference in total purse-seine catch across species was estimated by those CCMs at approximately 120,000 tonnes between the lower and upper TRP, almost entirely within the waters of certain coastal States, a factor considered to outweigh other differences, while remaining open to further consideration. One CCM retaining favoured the lower TRP at 70% and the upper TRP.

53. The Chair observed that positions remained largely unchanged from BMW01 and that flexibility indicated by some delegations pointed in opposing directions. Cautioning that failure to reduce options would make negotiations at WCPFC23 considerably harder, the Chair suspended the session for an extended break to allow informal consultations, undertaken to include online delegations.

54. Following those consultations, one CCM proposed reducing the dimensionality of the decisions and giving clearer guidance to the SSP. Noting general support for WCPO-wide application, with differences centered on the inclusion or exclusion of SIDS fleets and the Hawaii longline fishery, it proposed that only a WCPO-wide area be considered, removing the latitudinally bounded tropical scenarios, with alternative scenarios within that area addressing those fleets as questions of fleets rather than areas. This would not halve the SSP's workload but would simplify the decision. It was further proposed that the TRPs be reduced to the lower and upper TRPs, each at 50% probability. One CCM expressed initial support for the proposal as a reasonable compromise, with the treatment of SIDS fleets and the Hawaii longline fishery to be considered further, and CCMs were tasked by the Chair with considering this overnight.

Target reference points

55. The Chair proposed that the workshop retain the upper and lower TRPs, each at 50% probability, that is, as targets, for forwarding to the Commission. Several CCMs supported the proposal, considering that the two TRPs provided appropriate target levels for examining trade-offs in MP performance. One CCM that had preferred retaining the 70% threshold indicated continued interest

in that option but acknowledged the concerns of others and the additional workload for the SSP. The Chair noted that reducing the TRPs to two would substantially reduce the burden on the SSP, particularly if the spatial options could not be reduced. Following internal consultations, that CCM joined the consensus, while emphasizing that the precautionary approach should continue to be reflected in the evaluation and application of the MP, including consideration of LRP risks and key uncertainties. That CCM also sought clarification on the treatment of fisheries not controlled by the MP. The Chair encouraged further discussion with the SSP, noting that the SSP would undertake further work on those issues before WCPFC23.

Areas and fleets of application

56. The Chair recalled the proposal to retain only WCPO-wide scenarios in four variants: all longline fisheries under MP control; excluding SIDS fleets and including the Hawaii longline fleet; including SIDS fleets and excluding the Hawaii longline fleet; and excluding both. Appreciation was expressed for the proposal as a helpful means of advancing discussion.

57. One CCM expressed difficulty with special treatment for the Hawaii longline fleet under WCPO-wide scenarios. That CCM considered that the original request had arisen from the position of the tropical boundary relative to the Hawaii EEZ, leaving no apparent rationale for such special treatment under WCPO-wide application. The CCM noted that other small-scale fresh tuna longline fleets that land domestically without transshipping operate similarly and could seek comparable treatment. The CCM noted that special consideration for the Hawaii longline fleet could potentially be contemplated under the tropical longline option, while clarifying that it was not necessarily supportive of such an arrangement.

58. In response, the Hawaii longline fleet was described as more akin to SIDS fleets than to distant-water fleets: it operates out of Hawaii, does not tranship, has limited capacity, comprises relatively small ice-chilled vessels, is subject to strong monitoring, control and surveillance measures, and lands its product locally. That CCM stressed that the fleet sought not an increase in its catch limit, but protection of its current limit, and indicated that it was prepared to make a commitment to that effect. It stressed the importance of retaining the option excluding both SIDS fleets and the Hawaii longline fleet, while indicating willingness to remove the option excluding only the Hawaii longline fleet.

59. One CCM proposed that, for consistency with the TTM and with the Convention provisions concerning developing territories, the term “Territories” be added after SIDS in each scenario. That CCM strongly supported the two scenarios excluding SIDS and Territories. Several CCMs supported retaining the WCPO-wide scenario excluding SIDS and Territories, consistent with the exemptions under the TTM, noting that it aligned with the existing TTM framework and provided a pragmatic pathway for implementation.

60. One CCM indicated that it could accept the four variants, while emphasizing the distinction between the scope of the MP and the implementation of its outputs through an implementing CMM. That CCM preferred broad coverage of the major longline fisheries at the MP design stage, with any particular circumstances of SIDS or of the Hawaii longline fishery accommodated when MP outputs are translated into implementing arrangements.

61. One CCM sought clarification on the meaning of “inclusion” and “exclusion” and their implications for individual CCMs and expressed concern that the variants retained an element of the

latitudinal line approach. The Chair clarified that no agreement had been reached on Day 1 to limit consideration to WCPO-wide scenarios, so that all options, now six, remained on the table, and that the definitions could be clarified in the margins.

62. One CCM suggested that, in managing the SSP's workload, issues depending solely on negotiation should be distinguished from those requiring further analysis, with priority given to identifying the analytical work required from the SSP before WCPFC23.

63. Several CCMs stated that they would not support adopting the MP framework and resolving implementation arrangements at a later stage. They emphasised the need for clarity on the meaning of inclusion and exclusion in relation to the existing TTM provisions, including the SIDS exemptions, the limits in Table 3, the longline–purse seine trade-off and the disproportionate burden associated with the FAD closure.

64. One CCM, following up on those points and the earlier intervention by several CCMs supporting implementation through the TTM, suggested that agreement that the MP would be implemented through the TTM could simplify the decision on the area of application, given its alignment with the WCPO-wide scenario excluding SIDS and Territories.

65. Following extended informal consultations, including with online delegations, the Chair reported a clear signal that many CCMs wished to focus only on WCPO-wide scenarios and that there was general comfort with three options: (i) WCPO-wide, with all longline fisheries included; (ii) WCPO-wide, excluding SIDS and Territories consistent with the exemptions under the TTM; and (iii) WCPO-wide, excluding SIDS and Territories consistent with the exemptions under the TTM and excluding the Hawaii longline fleet. No objection was raised to forwarding these scenarios to the Commission. The Chair observed that, with three spatial scenarios and two TRPs, the evaluations would be reduced significantly, and congratulated CCMs on this progress.

66. In response to a question from Indonesia concerning longline fisheries in archipelagic waters, the SSP confirmed that the MP evaluations assumed that fisheries operating in archipelagic waters, as sovereign waters, were outside direct MP control. Indonesia and Korea requested that this assumption be recorded in the report. Korea further requested that its view be recorded that this treatment should apply not only to the bigeye MP but also to other MPs adopted by the WCPFC .

67. **Outcome:**

Areas and fisheries of application

BMW02 agreed to retain the following three area and fleet options for further evaluation:

- 1. WCPO-wide, all longline fisheries included.**
- 2. WCPO-wide, excluding SIDS and Territories, consistent with the exemptions under the TTM.**
- 3. WCPO-wide, excluding SIDS and Territories, consistent with the exemptions under the TTM, and excluding the Hawaii longline fleet.**

Target reference point

BMW02 agreed to retain the following two target-type TRPs for further evaluation:

- 1. Lower TRP: $0.94 \times$ the 2012–2015 average spawning biomass depletion, with a 50% probability of being at or above the TRP; and**

2. Upper TRP: $1.06 \times$ the 2012–2015 average spawning biomass depletion, with a 50% probability of being at or above the TRP.

AGENDA ITEM 5. SHAPE OF HARVEST CONTROL RULES

68. The SSP presented paper [WCPFC-BMW02-2026-WP06](#) on the shape of the HCRs, intended to raise awareness that further specification of HCR design would eventually be required rather than to add to the decisions needed at this meeting, and acknowledged that it need not take priority over the TRP and spatial discussions. Attention to date had focused on the height of the Hillary Step, determined from the nuclear grid across the arc of possibilities. The paper addressed what would occur should estimate stock status fall to the left of the step, on the descending curve or the bottom step. Given the planned negotiation of HCR pairs, the SSP considered that consistent HCR pairs should be fully specified in advance.

69. For the WCPO-wide excluding SIDS scenario under random HCR pairs, the probability of being to the left of the Hillary Step was about 0.085 for the lower TRP, including about 0.035 on the bottom step, and higher for the upper TRP, whose step lies further right with a longer curve, although with a lower probability of being on the bottom step. These probabilities were described as not high but not insignificant. The positions of the HCR components along the input axis were determined by the agreed TRP and the LRP, converted to approximate estimation method outputs, with the Hillary Step extending from 0.05 below to 0.10 above the TRP regardless of step height, and the top step set 10% above the Hillary Step.

70. Two illustrative formulations presented differed only in the bottom step. Under Formulation 1, it was set at 40% of the Hillary Step height, so that the relative shape remained constant as the step moved through negotiation and both outputs were reduced proportionally off the step. Under Formulation 2, it was fixed, in the example at an eight-month FAD open period and three-quarters of the 2019–2021 average longline catch, so that the relative shape changed with step height. Both yield identical outputs on the step but diverge on the descending limb; for example, at an input of 0.7 under the FAD-favoured pair, the FAD open period would be 6.8 months under Formulation 1 and 9.1 months under Formulation 2. The main evaluations had used Formulation 1, with Formulation 2 evaluated for the lower and upper TRPs across all spatial scenarios; on average, both performed very similarly in LRP probability and long-term catch. Given the non-zero probability of moving off the step, the SSP nevertheless requested guidance on the approach to defining candidate HCR shapes and, in due course, on a limited number of shapes, perhaps two, for a reduced set of scenarios, specified as formulations allowing HCRs to be pre-specified across the arc of possibilities.

71. Clarification was sought as to why the TRP was not centered on the Hillary Step and whether this asymmetry made reductions more likely. The SSP explained that the revised OM grid had moved the stock closer to the LRP, with some OMs starting below it, leaving limited room to the left of the TRP, particularly for the lower TRP. Extending the step further left would create an undesirable knife-edge descending limb, while shortening the right side would narrow the step and might reduce the likelihood of achieving the TRP. Asked why the more conservative upper TRP showed a higher probability of being left of the step, approximately 20% compared with 8.5%, the SSP explained that the same input range had been applied to both TRPs to facilitate generating many HCRs, so that with the step further right and the LRP anchor unchanged the curve was longer, with most time left of the

step spent on its upper portion. The SSP noted that HCRs could be individually tailored, for example by setting the lower end of the step at 0.1 below the upper TRP.

72. Several CCMs considered that the paired HCR design was complex and should be simplified where possible, particularly below the Hillary Step and towards the LRP. They considered that, where additional conservation action is required, both controls should move in the same direction, with the longline catch limit decreasing and the FAD open period shortening, rather than one tightening while the other eases. Those CCMs also considered that the Commission should not select or use any HCR combination providing less than an 80% probability of remaining above the LRP.

73. Several CCMs also sought simplification of the HCR design. They suggested maintaining existing measures where the estimation method indicates stock status around the TRP, avoiding negotiation over minor adjustments, consistent with the approach under the skipjack HCR. They further suggested that, when the stock status indicator is off the Hillary Step, outcomes should be limited to adjustments of both measures in the same direction, although potentially at different rates. Those CCMs queried whether these simplifications could instead be achieved through provisions in the MP CMM.

74. One CCM emphasised the importance of HCR shape for burden sharing. While the formulations differed little on average, CCM considered it difficult to determine from the available information how the burden of recovery would be shared between the longline and purse seine sectors below the step, and expressed the view that both sectors should share in that burden. The CCM reiterated the value of fishery impact and MSY-based indicators and suggested that the probabilities of being left of the step and on the bottom step, and the time taken to return to the step, be reported for proposed MP or HCR combinations to better reveal differences in performance than median outcomes alone.

75. Several CCMs expressed concern that HCRs with scalar outputs for the WCPO-wide scenario excluding SIDS had not yet been evaluated and expressed the expectation that they would be available for consideration by the Commission. Those CCMs also noted that some intermediate pairs in IP01 required reductions in longline catch while holding the FAD closure constant, while others had the opposite effect. Although recognising that these were illustrative, they considered that labelling an unbalanced pair as “intermediate” could be prejudicial, as it might be taken as a starting point for negotiations. They sought clarification on how HCRs would be described in an MP measure given the very large range of possible pairs and suggested that the relevant nuclear grid, or part of it, could form part of the MP CMM. The SSP indicated that a formula or design specification setting out the input ranges and rules for component heights would likely be required, differing from the single specified HCRs of the skipjack and South Pacific albacore MPs.

76. Clarification was sought on the background to Formulation 2, which had not been discussed at BMW01 or SC22, noting that selection of HCR shapes normally involves comparing more options. The SSP explained that the two formulations were illustrations intended to start discussion on HCR shape rather than recommended or final options, that alternatives such as a bottom step at 50% or 60% of step height or at different fixed levels could be considered, and that alternative shapes would ideally be evaluated once a reduced set of scenarios had been identified.

77. The Chair recalled the general view in favour of simplifying the paired HCR design below the Hillary Step so that the longline catch limit and FAD open period move in the same management

direction when additional conservation action is required. Observing greater comfort with HCR Formulation 1, which sets the bottom step as a proportion of the Hillary Step height and thereby provides proportional reductions in both outputs, the Chair proposed that the SSP use Formulation 1 as the basis for the evaluations presented to WCPFC23. One CCM explicitly supported the proposal, noting that Formulation 1 provided a simple and consistent basis across HCR pairs and had shown slightly better performance in terms of LRP risk. No objections were raised and the proposal was accepted.

78. Outcome:

BMW02 agreed to use HCR Formulation 1 as the basis for further consideration at WCPFC23 and tasked the SSP to use HCR Formulation 1 in the evaluations to be presented to the Commission.

BMW02 further requested consideration of events when HCR inputs are to the left of the Hilary Step as a potential performance indicator.

AGENDA ITEM 6. OPERATIONAL AND IMPLEMENTATION ARRANGEMENTS

79. The Chair presented a summary of the issues requiring consideration and guidance at BMW02 to inform decisions by WCPFC23 on the development of an implementing measure for the bigeye MP. The Chair recalled that MSE testing depends on how the MP will be implemented, including the spatial structure, the fisheries controlled and the TRP; that the SSP currently assumed renegotiation of the purse seine and longline trade-off every three years, raising questions as to when and how this would occur and whether constraints would be needed; and that, as understood at BMW01, the overlap area would be addressed when translating MP outputs into implementing arrangements. Views were invited in particular on whether the trade-off should be renegotiated every three years and, if not, what constraints might be required.

80. One CCM expressed discomfort with renegotiating HCR pairings each management period, describing this as unconventional relative to the way MPs are generally developed and tested and as not necessarily providing the predictability and stability sought by industry. That CCM suggested that a more conventional approach be considered or, if flexibility were retained, that meta-rules be developed to provide greater stability and predictability, noting that large changes from the current management framework were not being sought.

81. A second CCM favoured some flexibility while maintaining continuity between management periods. That CCM suggested using the existing longline catch and FAD open-period balance as the starting point for the next three-year period and adjusting it as necessary, rather than renegotiating the balance from the beginning each time.

82. Several CCMs proposed that the MP CMM specify a predetermined design formulation for generating the paired HCRs, including how the longline catch limit and FAD open period respond when estimated stock status moves below or above the Hillary Step. Within that design, the Commission could select an HCR pair for each three-year management period from the arc of possibilities, with the formulation evaluated through MSE. Those CCMs considered that separate constraints might not be necessary if the Commission took the size of any adjustment into account when selecting the HCR pair, while noting that any formal constraint should form part of the HCR design and be tested through MSE. Those CCMs also reiterated their support for implementing MP outputs through the TTM, with

the MP CMM determining the outputs and the TTM providing the mechanism for applying them. Under the WCPO-wide scenario excluding SIDS, the longline output could be expressed as a scalar applied to the existing bigeye limits in Table 3 and paragraph 41 of the TTM while retaining the SIDS exemption. They noted that, because the TTM contains separate flag-based catch limits rather than a single longline bigeye TAC, this would allow proportional adjustments to the existing limits without establishing a new allocation framework.

83. One CCM, while acknowledging that the proposed approach was less conventional, noted that the Commission was working within an existing management framework with which there appeared to be a broad level of comfort. That CCM considered the earlier suggestion of meta-rules useful and worthy of further consideration.

84. One CCM indicated that it could accept negotiation of the purse seine–longline trade-off every three years but considered that the overall duration of the MP should also be defined. That CCM suggested a six-year implementation period, consistent with the skipjack and South Pacific albacore MPs, and proposed a maximum allowable change between management periods of 15%.

85. Several CCMs considered that the trade-off should be negotiated every three years to preserve flexibility in the arrangements over time. They recalled that previous tropical tuna negotiations had involved other elements, including observer coverage, and noted that additional elements could form part of future trade-offs. Those CCMs were open to considering meta-rules to promote stability.

86. One CCM considered that some constraint on changes between management periods would be useful and suggested evaluating a small number of options through MSE, including no constraint, a 15% maximum allowable change and a 20% maximum allowable change, to better understand the trade-off between stability and responsiveness. That CCM subsequently clarified that the proposed constraint would apply principally to the change in the longline catch limit between management periods, rather than applying the same percentage mechanically to the FAD open period.

87. The SSP noted that its capacity to evaluate constraint options would depend on the number of remaining scenarios. The SSP observed that the constraints in the South Pacific albacore MPs were asymmetrical, recalling that they were approximately 10% and 5% in opposite directions. The SSP further noted that constraining changes between HCR pairs would require the design and evaluation of additional HCRs along the arc of possibilities and entail substantial work, whereas a constraint on changes in the longline catch limit appeared more straightforward, although its relationship with changes in the FAD open period required further consideration.

88. One CCM observed that two distinct forms of change were under discussion: changes in MP outputs between management periods, and changes arising from negotiation of the purse seine–longline trade-off. That CCM considered that these should be distinguished in identifying any further work for the SSP.

89. A second CCM agreed that these were related but distinct issues. That CCM saw merit in a maximum-change rule applying to MP outputs, noting the precedent of constraints in existing MPs, while recognising that an appropriate constraint for changes in a FAD open period was less clear. For changes arising through negotiation of the trade-off, CCM suggested that meta-rules in the MP CMM

could bound the selection of HCR pairs, including by avoiding changes in opposing directions for the affected sectors and excluding HCR pairs inconsistent with agreed performance criteria.

90. One CCM, supplementing an earlier intervention by several CCMs, suggested that measures could remain unchanged where the HCR input is on the Hillary Step and stock status is around the TRP, and queried whether this should be specified through the MP output or through the implementing CMM.

91. Questions were raised on how implementation delays beyond the two-year data lag would be addressed, whether as a robustness test or through explicit provisions or meta-rules, and the Chair undertook to follow these up bilaterally with the CCM concerned and the SSP. On how the arc of possibilities would apply when stock status is off the Hillary Step, the SSP indicated that the simplest approach would be to adjust both components downwards in accordance with the negotiated HCR pair to return the stock to the step as soon as possible, with a constraint possibly applying in that situation but not when negotiating along the arc while on the step. The item was left open for further consultations.

92. On summary of the item, the Chair reported that informal consultations on meta-rules and constraints had shown that more time was needed to consider their implications. The Chair noted that there was no standard constraint percentage across the Commission's existing MPs and that evaluating each additional constraint option would entail substantial additional work for the SSP, comparable to evaluating another TRP, which was not considered feasible before WCPFC23. Attempts to develop a list of meta-rules had also revealed implications requiring further consideration. The Chair therefore proposed that WCPFC23 consider meta-rules and constraints in developing the bigeye MP, without BMW02 seeking to define them.

93. One CCM suggested that the variability of changes in MP outputs between management periods could instead be included as a performance indicator, allowing the magnitude of potential changes to be assessed even in the absence of a formal constraint.

94. Recognising that a measure would need to be developed before WCPFC23, FFA CCMs confirmed their intention to submit a draft bigeye MP CMM for consideration at WCPFC23, to be shared in advance to facilitate feedback and constructive discussion. A request was also made that the SSP consider developing an interactive online application, as for previous MSEs, to visualise and compare candidate scenarios, including performance over time. The SSP indicated that this was technically feasible, subject to the prioritisation of its workload.

95. **Outcome:**

BMW02 considered the operation of the purse seine-longline trade-off between management periods, including whether an HCR pair should be selected or renegotiated for each three-year management period and whether constraints or meta-rules should apply.

BMW02 requested the SSP, if time and resources permit, to consider developing a Shiny app to support the visualisation and comparison of candidate bigeye MP scenarios and their performance.

BMW02 suggested that the Commission at WCPFC23 should consider meta-rules and constraints in the development of the bigeye MP.

BMW02 noted that FFA CCMs intend to provide a draft bigeye MP CMM for consideration at WCPFC23.

AGENDA ITEM 7. CONSIDERATIONS OF YELLOWFIN TUNA MSE

96. The SSP presented WCPFC-BMW02-2026-[WP07](#), Considerations for yellowfin tuna under the mixed fishery approach, noting that no new results had been produced since SC22. Under the mixed fishery approach there is no separate yellowfin MP, with fisheries catching yellowfin controlled through the skipjack, South Pacific albacore or bigeye MPs. Projections presented to SC22 had used a subset of bigeye MPs under the tropical longline scenario including the Hawaii longline fleet, and, as the bigeye OM grid had since been updated, projections could be rerun for a subset of the revised bigeye MPs before WCPFC23. Preliminary projections indicated a probability of at least 95% that yellowfin would remain above its LRP; however, MPs designed for the lower bigeye TRP resulted in a more depleted yellowfin stock, the objective of maintaining yellowfin around the 2012–2015 average depletion level was not met, longline yellowfin catches were higher under the lower TRP, and future vulnerable biomass was below the 2019–2021 average for both longline and purse seine fisheries. The SSP confirmed its intention to submit updated projections for the refined candidate MPs to the Commission.

97. One CCM expressed deep concern regarding these findings, given the vital importance of yellowfin to its national food security, local employment and domestic livelihoods, particularly in the artisanal and small-scale handline sector. That CCM was concerned that indirect management through the bigeye MP could trade off yellowfin biomass to optimise bigeye yields, disproportionately affecting small-scale coastal fishers. The CCM asked at what bigeye TRP the yellowfin objective in the TTM would be achieved. The SSP advised that this had not been explored, but that the lower the bigeye TRP, the more depleted the yellowfin stock would become.

98. Questions were raised on how bigeye longline catch limits would be translated into effort for the yellowfin projections and on what principally drove the finding that the yellowfin objective was not met, including the relative influence of the bigeye, skipjack and South Pacific albacore MPs and fisheries outside them. The SSP explained that WCPO-wide application would require different assumptions from the earlier tropical longline scenario, including on the interaction of fishery components with the other MPs; that the skipjack MP defines overall purse seine effort and that the FAD and free-school split had previously made relatively little difference to yellowfin outcomes; and that the interaction between the South Pacific albacore MP and the bigeye MP components would need to be worked through. Clarification was also sought on the treatment of species targeting in the projections. The SSP confirmed that species-specific effort or targeting had not been explicitly considered and explained that the higher yellowfin longline catch under the lower bigeye TRP reflected longline fisheries being projected at effort levels sufficient to achieve the bigeye catch.

99. Some CCMs observed that, although no candidate bigeye MP appeared to achieve the interim yellowfin objective, the degree of departure would differ among MPs and could therefore be relevant to MP selection. Those CCMs supported the inclusion of yellowfin biomass and other yellowfin outcomes as performance indicators in the bigeye MP evaluations. A request was also made for the updated yellowfin results to be presented to the Special Session of the Scientific Committee, and the SSP indicated that, given the paper timelines, the results would be available for that session.

100. One CCM suggested that a new yellowfin management objective would likely be needed and could potentially be framed as a threshold, with at least an 80% probability of remaining above the LRP identified as a possible starting point, recognising that further discussion would be required at WCPFC23.

101. Several CCMs drew attention to substantial uncertainty in some bigeye and yellowfin catch data for Indonesia's domestic fisheries, including the possibility that historical data may need to be re-estimated. Those CCMs highlighted the need for rules governing material revisions to historical data, including consideration of whether the MSE would need to be re-run where revised data differed sufficiently from those used in the evaluations.

102. **Outcome:**

BMW02 noted the preliminary yellowfin results, including that the current management objective for yellowfin is not achieved under the bigeye MP scenarios evaluated to date.

BMW02 requested the SSP to update the yellowfin projections using the refined subset of bigeye MP options identified by BMW02, including the addition of relevant yellowfin performance indicators to the bigeye MP evaluations, for consideration at the Special Session of the Scientific Committee and WCPFC23.

AGENDA ITEM 8. OTHER BUSINESS

103. The SSP summarised the additional work arising from BMW02, including evaluation of the three retained spatial scenarios and two TRPs, development of a new nuclear grid for the new spatial scenario, sensitivity analyses for fisheries outside MP control, updated yellowfin projections, the outstanding MSY-based performance indicator, scalar outputs and, if feasible, an interactive application. On the scalar outputs, discussion focused on what a scalar of one should represent. The preferred interpretation was that a scalar of one would maintain the existing TTM longline limits and FAD closure arrangements, with other outputs scaled relative to those baselines. The SSP noted that further work was needed to determine whether the existing longline catch limits contained in Table 3 of the TTM and FAD closure arrangements were consistent with the retained TRPs under the relevant scenarios.

104. Discussion also returned to the previously requested information on fishery impacts. A forward-looking indicator by gear was proposed to improve understanding of the relative contributions of fisheries to stock depletion and the trade-offs between longline and purse seine fisheries, potentially using the nuclear grid projection framework to remove individual gear groups in turn. The SSP advised that this would require substantial additional work. There was support for further work on fishery impacts, although views differed on how much of the more detailed forward-looking analysis should be completed before WCPFC23. The Chair noted general agreement that the SSP should further evaluate fishery impacts, with the scope and feasibility to be discussed further.

105. In prioritising work before WCPFC23, the SSP identified the evaluations of the retained spatial scenarios and TRPs, sensitivity analyses for fisheries outside MP control, and updated yellowfin projections as the core priorities. The scalar work was also considered important, with some CCMs attaching very high priority to it as necessary for consideration of the candidate MP options, and the SSP indicating that it could be relatively straightforward if it involved expressing HCR outputs relative to agreed baselines. Work on the MSY-based performance indicator was already progressing,

consistent with the earlier workshop request. The interactive application was considered useful but subject to available time and resources. On the more detailed forward-looking fishery-impact analysis, some CCMs supported completing at least part of the work before WCPFC23 if feasible, while another view considered it more relevant to the subsequent negotiation and application of the longline–purse seine trade-off. The Chair indicated that the SSP should take these differing views into account in sequencing the additional work within the available time and resources. The agreed list of priority/other work to be undertaken by the SSP arising from BMW02 discussions is listed in Appendix 1.

AGENDA ITEM 9. REVIEW OF AGREED OUTCOMES

106. The Chair presented the draft outcomes of BMW02 on screen and invited CCMs to review them item by item. No objections or amendments were raised, and the outcomes were agreed as recorded under the relevant agenda items above.

AGENDA ITEM 10. CLOSE OF THE MEETING

107. The Chair thanked CCMs for their engagement and compromise, noting the progress made in narrowing the options and reducing the work required before WCPFC23. She also thanked the United States for hosting, and participants, the SSP and the Secretariat for their contributions. Appreciation was also expressed to the Chair, the SSP, the Secretariat, and the United States.

108. The Chair closed the Second Bigeye Tuna Management Workshop on 2 October 2026.

APPENDIX 1. LIST OF WORK AREAS ARISING FROM BMW02 FOR THE SSP

109. The summary of priority work to underpin advice to WCPFC23 arising from BMW02 is:

- Develop candidate MPs for new bigeye MP spatial scenario (WCPO wide excluding SIDS and Territories and Hawaiian longline fisheries) for both candidate TRPs ($0.94x$ and $1.06x$ $SB_{2012-2015}/SB_{F=0}$).
- Produce output scalars to be applied to the existing TTM longline bigeye catch limits and FAD closure durations (only for WCPO wide excluding SIDS and Territories, consistent with exemptions under the TTM)
- Robustness testing for the refined candidate MPs, including sensitivity to alternative assumptions for catches in fisheries outside MP control. This includes evaluating the effects of plausible changes in those fisheries on the management outputs for MP-managed longline and purse seine fisheries.
- Provide information on the assumed future longline catches of SIDS and Territories fleets relative to recent levels.
- Update the spreadsheet-based product on the relative contributions of purse seine and longline fisheries to stock depletion for the revised OMs, taking into account any suggestions for its improvement, and to provide, to the extent possible, more specific estimates of the fishery impact of the domestic fisheries of Indonesia, the Philippines and Vietnam. [SSP notes: no suggestions were received during BMW02, the request for ID/PH/VN is not feasible within the spreadsheet – those fisheries are kept at constant levels into the future].
- Consideration of events when HCR inputs are to the left of the Hillary Step as a potential performance indicator.
- Update the yellowfin projections using the refined subset of bigeye MP options identified by BMW02, including the addition of relevant yellowfin performance indicators to the bigeye MP evaluations, for consideration at the Special Session of the Scientific Committee and WCPFC23.

110. BMW02 agreed that the following elements were desirable, but not priority for WCPFC23:

- Requested the SSP, if time and resources permit, to consider developing a Shiny app to support the visualisation and comparison of candidate bigeye MP scenarios and their performance.
- Complete the outstanding MSY-based performance indicators for the refined candidate MP evaluations for consideration at WCPFC23.
- Provide a performance indicator of fishery impact by gear