



**COMMISSION  
SCIENCE-MANAGEMENT DIALOGUE  
FIRST MEETING**

Electronic Meeting  
10:00am-14:00pm, 19 and 22 August 2022

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**SUMMARY REPORT**

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12 October 2022 (Rev.01<sup>1</sup>)

**AGENDA ITEM 1 — OPENING OF THE MEETING**

**1.1 Welcome address**

1. The first Science-Management Dialogue (SMD01) of the Western and Central Pacific Fisheries Commission (WCPFC) was held as an electronic meeting on 19 and 22 August 2022. Ms. Jung-re Riley Kim, Chair of the WCPFC opened the SMD01 meeting and explained that the meeting would be co-chaired by herself and Dr Tuikolongahau Halafihi (Tonga), the Chair of the WCPFC Scientific Committee (SC).

2. The following WCPFC Members, Cooperating Non-members and Participating Territories (CCMs) attended SMD01: American Samoa, Australia, Canada, China, Cook Islands, European Union (EU), Federated States of Micronesia (FSM), French Polynesia, Indonesia, Japan, Kiribati, Republic of Korea, Republic of Marshall Islands (RMI), Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea (PNG), Philippines, Samoa, Solomon Islands, Chinese Taipei, Tonga, Tokelau, Tuvalu, United States of America (USA), and Vanuatu.

3. Observers from the following inter-governmental organizations attended SMD01: Pacific Islands Forum Fisheries Agency (FFA), Parties to the Nauru Agreement (PNA), and The Pacific Community (SPC).

4. Observers from the following non-governmental organizations attended SMD01: Australian National Centre for Ocean Resources and Security (ANCORS), Birdlife International, Conservation International (CI), International Seafood Sustainability Foundation (ISSF), Marine Stewardship Council, The Global Tuna Alliance, The Pew Charitable Trusts (Pew), The Ocean Foundation, World Tuna Purse Seine Organisation (WTPO), and World Wide Fund for Nature (WWF).

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<sup>1</sup> [Includes comments received prior to the due date and edits from the SSP](#)

5. A full list of SMD01 participants is available on the [WCPFC's SMD01 webpage](#).

6. Dr Tuikolongahau Halafihi (Tonga) offered the opening prayer.

7. The WCPFC Chair, serving as SMD01 Co-Chair, expressed her great pleasure and honor to open and co-chair the first session of the WCPFC SMD. She noted that the draft terms of reference for the SMD were first introduced in Hawaii at the Fifteenth Session of the WCPFC (WCPFC15). She stated she was glad to finally have an opportunity for scientists and managers to join in comprehensive discussions from differing perspectives, with the aim of narrowing gaps and progressing the harvest strategy approach. She stated that the line between science and policy-making has been blurring for some time, including for the WCPFC, and that the importance of science for fisheries management continues to increase, especially in terms of harvest strategy development. She noted the Commission had already adopted some elements of management procedures, such as reference points and acceptable levels of risks. Although progress was not always as rapid as hoped for, she noted the Commission had continued moving forward. She stated the task before SMD01 was to explore ways to deliver on the commitment for management procedures for skipjack and South Pacific albacore to be adopted at WCPFC19. She noted the preparations that had been made for the Dialogue, including capacity building workshops and audio-visual materials designed to enhance understanding of harvest strategy and management procedures, noting the latter are extremely complex and require a wide range of elements, including management objectives and performance indicators (PIs), each of which entails lengthy and difficult discussions and negotiations. She stated her hope that that SMD01 would facilitate the goal of adopting management procedures for skipjack and South Pacific albacore in 2022. She expressed her thanks to all those who had helped with the preparations for SMD01, and in particular the Scientific Services Provider (SSP), the Oceanic Fisheries Program of the Pacific Community (SPC-OFPP) for their significant contribution to the process as reflected through the many papers, presentations, videos and capacity building assistance.

8. The SC Chair, serving as SMD01 Co-Chair, observed that SC18 had concluded the previous day, and that some of the SC18 adopted recommendations relevant to SMD discussions would be delivered under Agenda Item 3. He noted that he would chair the technical sessions under Agenda Items 3 and 4, and welcomed advice and suggestions on both agenda items. He stated that open and frank discussions would enable participants to reach their objectives, both in terms of capacity building for managers and stakeholders and gathering sufficient feedback for scientists to further progress the development of the WCPFC harvest strategy framework. He expressed his wish that SMD01 would facilitate a constructive dialogue between scientist, managers and stakeholders, and looked forward to proactive participation by all those at SMD01.

9. The WCPFC Executive Director, Feleti P Teo, OBE, welcomed participants to the virtual session of the first SMD, noting that such a Dialogue had been discussed for several years, having been initially mooted by the Commission at WCPFC15 in 2018. He stated that it was pleasing to finally witness the convening of this first SMD, albeit on a trial basis, and that the Dialogue presented an opportunity for scientists and managers to come together and to exchange views and to query each other on the implications of the scientific advice and information provided by the scientists, so that the fisheries managers and policy makers are better informed and better equipped to decide on the appropriate management decisions. He stated that the challenge was to ensure the

trial Dialogue delivered on the envisaged benefits by expediting the progress of developing and implementing the harvest strategy-based fisheries management approach to WCPO tuna stocks and fisheries, noting the highly technical nature of harvest strategies. He stated that clearly understanding and comprehending the approach is fundamental to the Commission’s collective efforts in advancing the harvest strategy approach. The Executive Director acknowledged with appreciation and thanked SSP’s work in socializing the harvest strategy approach to fisheries management and for the assistance provided directly to CCMs in terms of the training seminars and other capacity building initiatives, including those leading up to SMD01, and for providing the background papers to facilitate the technical discussions. He noted the trial nature of SMD01, and the need to have reasonable and realistic expectations in terms of the outcomes. He stated that SMD01 might not be able to provide substantial recommendations to the Commission on management procedures for skipjack but suggested that any advancement in their consideration and improved understanding of the issues involved would justify the value of the SMD01 as one of the avenues to developing and implementing harvest strategies. He wished SMD01 success and assured SMD01 that the Secretariat and the SSP were ready to support its work.

## **1.2 Meeting arrangements**

10. The Commission Chair outlined the meeting arrangements, including the meeting schedule as outlined in [WCPFC-SMD01-2022-03](#); the allocation of chairing responsibilities (the WCPFC Chair would be responsible for agenda items 1, 2, 5, 6 and 7; the SC Chair for Agenda items 3 and 4, which are science-focussed; and the two Co-Chairs would share responsibility for closing Agenda items 8 and 9). She stated that a Summary Report would be provided after the Dialogue, with a set of Agreed Points considered and cleared under Agenda 8 item before the end of the meeting. The Agreed Points are included under the respective agenda items of this Summary Report.

## **1.3 Adoption of agenda**

11. The Commission Chair noted that the agenda considers the areas of focus for SMD01 as determined by the Commission at WCPFC18. Given the time constraints, she stated that the agenda was very focused and aligned closely with the requirements of the Harvest Strategy Workplan for 2022, with a particular focus on progressing the management procedures for skipjack. The agenda was developed in consultation with CCMs and other stakeholders whose input reflected in the agenda, and initially posted on 13 May 2022. The agenda was revised to reflect the status of work done on those specific work areas: Agenda Item 3.2 was added to highlight the link between relevant outcomes of SC18 and SMD01; and the former agenda item 4.2.1 was removed, reflecting the slower-than-envisaged technical progress made for South Pacific albacore.

12. SMD01 agreed to the agenda for SMD01 ( <a href="#">WCPFC-2022-SMD01-02_rev.01</a> ).
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## **AGENDA ITEM 2 — OBJECTIVES OF SMD01**

### **2.1 Adoption of Objectives of SMD01**

13. The Commission Chair noted that in accordance with the updated WCPFC Harvest Strategy Workplan ([Attachment I, WCPFC18 Summary Report](#)), WCPFC19 is scheduled to adopt management procedures for WCPO skipjack and South Pacific albacore, and that the SMD01 process would assist the Commission in that regard. She also noted that the SMD01 would focus on identifying a preferred management procedure (or subset of management procedures) for consideration and potential adoption by WCPFC19. As necessary, SMD01 would also identify further work required to support decisions on adoption of management procedures for WCPO skipjack and South Pacific albacore. Given the limited time available for discussions, the Co-Chair suggested that SMD01 adopt a primary focus on skipjack, for which the evaluation framework is most developed, and then address issues related to South Pacific albacore. She stated that the knowledge and understanding gained from the discussions, processes and outcomes at SMD01 would then be reflected in the WCPFC Harvest Strategy Workplan (addressed under Agenda item 5).

14. The Co-Chair reviewed the draft objectives for SMD01, as outlined in [SMD01-BP-01](#). She noted that agreement on these objectives is critical to ensure that all participants to SMD01 agree as to the focus and expected outcomes of the Dialogue. In developing the SMD01 objectives and focus, the Secretariat and the SSP consulted CCMs and other stakeholders through a consultative draft that was distributed for input together with the draft agenda for SMD01.

15. She noted that the Dialogue objectives include the need for SMD01 to:

- promote consistent understanding amongst CCMs on the harvest strategy approach to fisheries management, in terms of its structure, function and implementation;
- initiate discussion on prioritising and identifying management procedures for consideration by WCPFC19 in December for both skipjack and South Pacific albacore, with particular emphasis on skipjack; and identifying what additional work and analysis are required prior to WCPFC19 to better inform discussion of the Commission on those management procedures; and
- consider future processes that will better inform the Commission decision-making process on management procedures and other harvest strategy components.

She also noted that the expected outcomes for SMD01 are:

- improved understanding by CCMs of the harvest strategy approach to fisheries management, what full implementation entails, and what further training and/or capacity building may be required;
- to have progressed and advanced discussion of management procedures for skipjack and South Pacific albacore; and identified the additional work and analysis required to inform further discussion at WCPFC19; and
- to provide suggestions to the Commission on the future role of the SMD process in enhancing the decision-making of the Commission on the development and implementation of harvest strategy issues.

## **Discussion**

16. RMI noted that the SMD had been long anticipated. RMI observed the positive status of WCPFC stocks and the need for this to be maintained, while stating that doing so is complicated. RMI supported the SMD objectives as outlined and stated that it looked forward to the discussions.

RMI also reminded CCMs that SMD01 was a trial and noted the need to ensure equal opportunity for all CCMs to participate, and capacity building as needed, especially for small island developing states (SIDS). RMI encouraged all CCMs to participate effectively and reflected that consideration would be needed after SMD01 as to whether additional SMDs should be conducted.

17. The Co-Chair confirmed that the SMD was a work in progress and would be modified as needed to address CCMs' needs.

18. Japan stated that it had not been feasible to hold the anticipated pre-SMD capacity building workshops in Japan; views were exchanged with stakeholders regarding the Harvest Strategy concepts, but detailed information had only become available at SC18. Japan stated that SC18 included some very complicated discussions, and that Japan was still working to determine their implications. Japan agreed SMD01 should be viewed as a trial, and stated it was not yet confident of the harvest strategy approach in the long-term. However, it stated that the work as outlined in the Commission's Harvest Strategy Workplan should be completed, and indicated it would participate positively, but that the process must be seen as a trial.

19. The Co-Chair thanked Japan and noted that CCMs were working to understand the concepts and background information that is required for the Commission's considerations on harvest strategies, and noted that, as expressed by RMI, this was a work in progress, and the Commission would continue to explore better ways to gather scientists and managers to facilitate the adoption of harvest strategies.

20. Niue, on behalf of FFA members, acknowledged the work carried out by SSP, and funded by New Zealand, and the capacity building workshops over the previous years. They stated that these had helped develop a better and shared understanding of the work needed to develop harvest strategies for the WCPFC's key tuna stocks. They stated that while some hurdles remained, the work had enabled the Commission to progress to the point that it could consider adopting management procedures, hopefully beginning with skipjack, and also for South Pacific albacore.

21. The Co-Chair noted that the three objectives covered only SMD01, and not the entire harvest strategy process. She stated that the broader objectives for the entire Commission processes would also be discussed as appropriate, but that the three objectives needed to be addressed in order to facilitate progress at WCPFC19.

22. SMD01 agreed to the objectives for SMD01 (WCPFC-SMD01-2022/BP-01).
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### **AGENDA ITEM 3 — BACKGROUND INFORMATION**

23. The SC Chair, as SMD01 Co-Chair, introduced Agenda Item 3, and noted that it would provide relevant background information for the substantive discussion to follow under Agenda Item 4.

#### **3.1 Progress in developing harvest strategies for WCPFC stocks and fisheries**

24. G. Pilling (SPC-OFP) introduced [SMD01-BP-02](#) *Progress in developing harvest strategies for WCPFC stocks and fisheries*, noting that the WCPFC agreed to develop and implement the harvest strategy approach through CMM 2014-06, and that harvest strategy components include the following:

- **Management Objectives** – these guide the process and are likely member-specific.
- **Management Procedures** – these incorporate data collection processes, estimation methods, and harvest control rules (HCRs).
- **Performance indicators** – these are calculated during the management strategy evaluation (MSE) process and allow selection of a management procedure that best achieves objectives (or acceptable trade-offs).
- **Mixed fishery** – reflects the potential impact on other stocks of a management procedure developed to control one fishery or stock.
- **Monitoring strategy** – following adoption of a management procedure, the monitoring strategy evaluates the performance of the management procedure to determine if the outcomes are consistent with the expected performance. Stock assessment and collected data are used to confirm that the adopted management procedure is performing as expected (and to monitor for ‘exceptional circumstances’).

25. The presenter outlined the next steps in the harvest strategy work, as outlined by the Commission in the Harvest Strategy Workplan in 2022. At WCPFC19, the Commission is scheduled to review and adopt a management procedure for skipjack, and to review and adopt a management procedure for South Pacific albacore, noting that technical issues for the South Pacific albacore may be delayed.

## **Discussion**

26. Japan addressed exceptional circumstances, noting that if the stock assessment results are outside the range of the management procedure, this could be defined as exceptional circumstances. It referenced the 2022 skipjack stock assessment, which presented a somewhat different view of the skipjack stock status than provided by the 2019 stock assessment. It inquired whether this kind of change could be regarded as exceptional circumstances?

27. The presenter stated that this had been discussed at SC18, noting that the 2022 skipjack stock assessment indicates the status of skipjack stock is by comparison less depleted throughout the time series. He noted that a number of changes between the 2019 and 2022 skipjack stock assessments led to this but highlighted that the key point to consider is whether that and the operating model grid that SSP uses for MSE work are notably different: SSP’s analysis indicates they are not. He stated that this is why SSP uses relative values (stock status as determined by the stock assessments to the TRP value) and compares that with the equivalent status from the operating model grid (currently based on the 2019 stock assessment); that grid captures the desired range of uncertainties, and the 2022 stock assessment results fall within the operating model range, with no indication of exceptional circumstances. He also noted that the stock assessment tries to capture the historical status of the stock, while the operating model grid looks into the future and incorporates uncertainties that might affect future performance and stated that these differ slightly. He stated SSP is confident in using 2019 as the basis for the operating models used for the analyses at SMD01.

28. Korea inquired whether exceptional circumstances always indicate a negative outcome (such as the stock of a species recovering more slowly, or status being much lower than expected), and inquired whether a resource that was recovering much faster, or spawning biomass that was much higher than expected, would also be considered an exceptional circumstance?

29. The presenter stated that faster than expected recovery or status above the expected range could be considered exceptional. [The question was then what, if any,](#) action would be taken, noting a decision would have to be made in terms of whether (i) to maintain the management procedure and allow the more rapid or better recovery to continue, or (ii) change the management procedure, with different performance that still meets the desired management objectives.

30. Tuvalu on behalf of PNA and Tokelau stated that much work had been done but that progress had been moderate, with no management procedures in place after 8 years for any of the key tuna stocks. They stated that, for a range of reasons, they had doubts about whether the approach currently being followed would work. They stated they agreed in CMM 2014-06 to apply a harvest strategy approach, and remained committed to that agreement, but stated it was difficult for them to commit to the long-term management of the most important economic activity in most PNA members' territories using the ongoing process. PNA and Tokelau suggested a more flexible approach was needed and proposed a trial arrangement for a skipjack management procedure. The arrangement would include a full skipjack management procedure with the elements indicated by SSP, but the Commission would agree to take the outcomes of the management procedure into account when revising the tropical tuna CMM, instead of committing to apply them. They stated that this would give all CCMs the opportunity to work with the skipjack management procedure on a trial basis until they are comfortable with adopting it fully and might also allow some elements that are not yet fully detailed or agreed to be further developed over time. They proposed that the trial would run for 6 years, and that if desired the Commission could of course move to full adoption before the 6 years had elapsed. PNA and Tokelau stated they would prepare a draft trial management procedure document along the lines described for consideration at WCPFC19.

31. Indonesia inquired, regarding the presentation figure of simulated MSE data for a monitoring strategy, of what type of uncertainty would increase over time, and how to determine what constitutes an exceptional circumstance?

32. The presenter noted that the data [were](#) hypothetical, but that it reflected that the future is always more uncertain than the past, because of unknowns such as climate change and future recruitment [levels](#), and thus the range of possible outcomes expanded over time. Regarding when an exceptional circumstance would be triggered, he stated that this would require consideration, probably by SC, and that a response to exceptional circumstances would likely depend on how far outside the expected range the projection was, and likely the stock status as well.

33. FSM stated the need to prevent a disproportionate burden being transferred to SIDS through adoption of a harvest strategy, as outlined in CMM 2014-06, and inquired what could be done in this regard.

34. The presenter stated that some objectives, including disproportionate burden, can't be modelled within the MSE modelling process. He noted that the harvest strategy will set the overall level of fishing effort or catch, but how that is allocated among CCMs is for the Commission to decide, and that is where disproportionate burden can be considered. The harvest strategy in the mixed fishery analyses can look at how a management procedure for one stock impacts on another stock, which may [also](#) assist with a disproportionate burden analysis.

### 3.2 Outputs from the SC18 Management Issues Theme Session

35. R. Campbell, SC18 MI Theme Convener, presented key outputs from the harvest strategy discussions at SC18. He referenced his summary presentation ([SC18 Outcomes of Management Issues Theme](#)) and the comprehensive list of recommendations contained in [WCPFC-SMD01-2022/IP-10](#) (*SC18 Management Issues Theme – Adopted Recommendations for the Commission*).

36. RMI noted the value of the scientific advice provided in support of effective management measures, and the statement from PNA and Tokelau on their proposal for moving forward with a skipjack management procedure on a trial basis and looked forward to submitting that to WCPFC19. With regards to the next tropical tuna CMM, RMI noted that a missing element that needed to be considered is to include economic considerations and the capacity of SIDS and trialling a management procedure for skipjack. RMI noted that this is very important for FFA members countries. RMI also noted some gaps in terms of scientific information with regard to the mixed fisheries and South Pacific albacore.

37. SMD01 acknowledged the work of the SSP provided to date and noted the work of the SC18 as presented by the MI Theme Convener.
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## AGENDA ITEM 4 — PRIORITISE MANAGEMENT PROCEDURES

### 4.1 Management procedures for skipjack

38. F. Scott (SPC-OFP) provided a presentation ([Selecting preferred skipjack management procedures with PIMPLE](#)) on the progress of the skipjack management procedure and issues to be addressed at the SMD01 for the comparison and selection of preferred management procedures. Capacity building workshops were provided prior to SC18 to inform members of the harvest strategy approach and discuss methods for identifying and selecting preferred management procedures. He noted that the associated background paper ([SMD01-BP-03 Overview of the harvest strategy development for skipjack tuna](#)) provides further background information.

#### 4.1.1 Interrogation of performance indicators (e.g., using PIMPLE) and identification of preferred outcomes

39. F. Scott (SPC-OFP) demonstrated the functioning of PIMPLE, and noted that two videos are available: [A tour of PIMPLE](#), and [A demonstration of how PIMPLE can be used](#).

### Discussion



40. Japan noted the main skipjack PIs in the presentation indicate that catch per unit effort (CPUE) is considered relative to 2012, and only for the purse seine fisheries in areas 6, 7 and 8; there is no mention of pole and line CPUE or other fisheries' CPUE. Japan asked why CPUE figures for other fisheries were not included, particularly pole and line in areas 1, 2, 3, and 4, as these indicators would be quite important if the management procedure includes fisheries other than purse seine. Japan also inquired regarding stability, and the intended meaning of “proximity to  $SB/SB_{F=0}$  in 2012”.

41. SSP indicated that currently CPUE is included only for purse seine for areas 6, 7 and 8, noting that it may be possible to include CPUE data for other fisheries; the SSP noted as well that vulnerable biomass for pole and line fisheries could be considered a proxy for pole and line CPUE. SSP indicated that stability metrics are calculated looking at variability (how much the relative catch has changed over those years). A [stability of 1 means that the catch or effort does not change over time. A stability of 0 means that catch or effort vary relatively strongly over time. In PIMPLE, stability is calculated by looking at variability across different HCRs, selecting 95th percentile variability, and setting that level as a stability of 0.](#) This is difficult to interpret in terms of what that might mean in the actual change in catch but is helpful in comparing relative stability between candidate management procedures. In PIMPLE actual variability in catch is shown under the Other SKJ indicators tab. If a catch-managed fishery (such as pole and line) is included in the HCR diagnostics, a plot shows how much the HCR changes between management periods. This is directly linked to how much the catch would change for a catch-controlled fishery.

42. Chinese Taipei noted that the first PI reads “probability of  $SB/SB_{F=0} > LRP$ ”, but SMD01-BP-03 states “maintain biomass at or above levels that maintain fishery stability throughout their range” and inquired if these were equivalent. Chinese Taipei also noted that the PI in SMD01-BP-03 seems to address the species together and inquired if this was currently possible. Chinese Taipei also asked what the next step is, and if a single HCR needed to be selected.

43. SSP stated that the probability of keeping the stock status above the limit reference point (LRP) is a measure of sustainability and is a bare minimum for the HCR (if the HCR doesn't keep stock status above the LRP, it is not effective); a number of candidate HCRs evaluated fall below the LRP. Regarding fishery interactions, WCPFC does not have a full dynamic bigeye management procedure so SSP has had to make three assumptions about what the tropical longline fishery (which under the current approach would be managed under the bigeye management procedure) will do in the future in terms of setting bigeye catches. This may provide some additional information about which of the candidate skipjack management procedures or HCRs may be of interest. Of those included in the Mixed fishery indicators tab, neither skipjack nor yellowfin falls below the 0.8 probability of being below the LRP. SSP noted that this would be more helpful when testing the bigeye management procedures, as then the interactions will become evident. It stated that it would be necessary to select a single HCR or management procedure, and that the current Harvest Strategy Workplan suggests this should happen at WCPFC19; given this, SSP noted it would be helpful if SMD01 could reduce the number of candidate HCRs to a manageable level. SSP noted that the HCR is part of the management procedure, and that all skipjack management procedures have the same data collection and estimation methods.

44. Japan inquired regarding HCRs 1 and 2 as demonstrated in PIMPLE, noting that using a scalar of 1.0, future projections show stable pole and line catch but increasing purse seine catch in areas 6, 7, and 8. Japan noted that purse seine catch in 2012 was very high, while pole and line catch was low, and asked why purse seine catch is increasing even though scalar is maintained at 1.0?

45. SSP stated that the HCR uses a catch or effort multiplier. [The assumption is that purse seine is managed through effort, so the HCR output is used to adjust the future purse seine effort relative to 2012. Pole and line is assumed to be managed through catch limits, so the multiplier is applied to the 2012 catch. With a scalar of 1.0, the pole and line catch is maintained at the same 2012 level and the purse seine effort is held at 2012 effort levels. The realised catch in the purse seine fisheries depends on the vulnerable biomass and the fishing effort.](#) SSP noted this shows the result of catch vs. effort management. For some HCRs that set scalars above 1, it may be that some catches for pole and line increase while those of purse seine do not; it is not easy to predict what will happen using the differing management approaches.

46. The EU noted the SMD process helped to build trust in the work undertaken over many years. It inquired how the various improvements that have been introduced in the latest stock assessments could be influential or trigger a need to update the current MSE framework built for skipjack, and inquired whether SSP needed to update any of the current framework (e.g., the estimation model)? Regarding the information shown comparing different HCRs, the EU noted that there are some instances where a number of HCRs behave in a similar manner for a large number of PIs. It inquired if SSP had suggestions on how to develop objective metrics that could help in discriminating between similar HCRs based on the PIs?

47. SSP stated that the stock assessment could be used to update the MSE, but that this would be addressed later in the SMD. Regarding similar HCRs, SSP stated it could discriminate between them, if CCMs had criteria, but suggested not spending too much time distinguishing between very similar HCRs.

48. The USA noted that the performance of the HCRs is important, but that the thresholds for the various HCRs are as well and requested that SSP provide more information on the thresholds used.

49. SSP stated that it sought to cover a broad spectrum of different HCR shapes, noting that agreement was made that output would be centred on catch and effort multipliers [from the levels](#) in 2012. The thresholds were used to give some variation in the shape of the HCRs to give contrast across different indicators. SSP stated that [SC18-MI-WP-02 Evaluations of candidate management procedures for skipjack tuna in the WCPO](#) (in the appendices) has the settings for each HCR.

50. EU suggested as a first step in narrowing the number of HCRs under consideration was [to focus on HCRs with a 10% variation constraint and expressed its preference for HCRs 1, 2, 5, 6 and 9 \(the latest two with the 10% constraint added\).](#)

51. Tokelau also on behalf of PNA acknowledged the capacity building assistance given to SIDS, which they find useful, including the PIMPLE tool. It stated that the performance metrics are useful as they allow exploring, in a comparative manner, the implications of selecting one

management procedure over another. The PNA and Tokelau stated that the performance metrics of concern to them relate to the management system that they employ in their waters (i.e., an effort-based management system); they noted the relevance to them of PIs relating to the relative effort and the effort stability in the short, medium and long term, stating they had demonstrated their commitment to managing the fishery in line with the effort limit that they set for the fishery. For that reason, they stated they could not support HCRs that result in large-scale changes in the fishery. The PNA and Tokelau stated their preference for HCR 9, noting that given the high degree of variability in terms of the final assessment outcome over the last three stock assessments, the design feature of the step allows some fluctuation around the preferred level at which the stock is being managed. The curved descending arm from the step allows for management action to take effect without abrupt disruptions to the fishery, and the ascending arm from the step allows for increases in the fishery if consecutive assessments show improvements in the underlying stock.

52. SSP noted that at present HCR 9 does not have the plus or minus 10% constraint, but that it could be useful to apply this.

53. Japan suggested that differing metrics between purse seine and other fisheries could create some discrimination among fisheries, stating that if purse seine is controlled by effort and pole and line by catch using the same scalar, there may be discrimination in the future. Japan stated that at this stage it was not supportive of the use of different metrics for HCRs or management procedures. It stated that HCR 1 and HCR 2 are very orthodox and basic, and that it would support these, plus or minus 10% would be good to alleviate sudden changes in fishing opportunities.

54. The USA supported the effort to narrow the HCR choices. It supported maintaining HCRs 1, 2, 5, 6 and 9, with some remaining questions regarding 1 and 2 depending on the TRP; it thus supported excluding HCRs 3, 4, 7 and 8.

55. SSP summarised the initial feedback received from SMD01 under Agenda Item 4.1.1 as follows:

- (i) Retain management procedures (HCRs) 1, 2, 5, 6, 9 (provide equivalent results where a 10% +/- constraint is in place for all these).
- (ii) Analyse the use of effort controls for the pole and line fishery, rather than catch ( SSP noted the potential need to consider effort creep implications, as addressed in [SC18-SA-IP-16](#)).
- (iii) Determine whether small scale fisheries (taking less than 2,000 tonnes) should be included within the management procedure controls.
- (iv) Use an alternate baseline for “other fisheries” ([pole and line](#)) of 2001-2004 or 2004 conditions. SSP noted that Japan had indicated that the average of 2001-2004 conditions would be suitable. SSP also observed that the 2001-2004 catch and effort in the Japanese pole and line fishery exceeded both the levels in 2012 and in the most recent period. If the management procedure went into effect, catch and effort would increase with the result that calculated depletion would increase from recent levels. SSP stated that if the higher baseline was used for the management procedure, it should also be used to recalibrate the skipjack TRP in order to ensure consistency.

56. Regarding small-scale fisheries under (iii), Japan referenced [WCPFC-TTMW1-2021-IP02](#), Table 6b (*Total tropical tuna catch estimates for Other Fisheries (excluding purse seine and longline) in the WCPFC Statistical Area, which are exempt from CMM 2018-01 Other Commercial Fisheries*), and inquired which of those fisheries were included in the management procedure controls as currently proposed.

57. SSP stated that many of these fisheries were within territorial seas or archipelagic waters, and thus would not be controlled by the management procedure. Some assumptions would need to be made for any that were included within the operating models.

58. The EU inquired whether the reference year for 2001-2004 [for a fishery](#) would be comparable/[compatible with the reference year used for other fisheries](#). In relation to analysing the status of small-scale fisheries (taking less than 2,000 tonnes) in territorial waters, it [inquired if](#) these were part of the management procedure to date.

59. SSP stated that in previous analyses of the TRP and management procedures, it assumed a baseline of 2012 except for Indonesia, Philippines and Vietnam, for which it used a more recent [catch](#) level. The proposal was to use effort in the future [for pole and line fisheries](#), rather than catch — thus if the stock increases in size, the catch would be calculated to increase; using the 2001-2004 projection would imply the stock is more depleted than in the previous analyses. In response to a suggestion from the EU to use multiple baselines, SSP noted that it required clear guidance from the Commission regarding which baseline to use, as using multiple baselines would greatly increase its workload, and was thus not feasible.

60. The EU noted it had concerns in making the determination to use 2001-2004 as the reference year, based on the information provided by SSP.

61. Japan stated that analysing the status of small-scale fisheries (taking less than 2,000 tonnes) and fisheries in territorial waters within the management procedure would help ensure consistency with the treatment of archipelagic waters, and consistency with CMM 2021-01, which exempts these fisheries from control.

#### **4.1.2 Settings and assumptions of the MPs**

62. Rob Scott (SPC-OFP) presented [Skipjack settings and assumptions of the MPs](#), with reference to [SMD01-BP-03](#) (*Overview of the harvest strategy development for skipjack tuna*).

#### **Discussion**

63. Japan noted the relationship between the skipjack harvest strategy and CMM 2021-01, stating that if a harvest strategy is approved for skipjack, the outcomes from the management procedure could be reflected in the tropical tuna CMM, which also addresses bigeye and yellowfin, and sought to clarify the relationship between harvest strategy for skipjack and the tropical tuna CMM.

64. SSP stated that this may be better addressed under Agenda Item 5 (Pathways to Commission Decision Making).

65. Solomon Islands on behalf of PNA + Tokelau inquired about the implications of assumed levels of catch and effort in archipelagic waters, noting the annotated agenda for SMD01 contains a mention of “Reference year of 2012 for catch and effort scaling (noting this has implications for the assumed future distribution of catch and effort amongst fisheries and for the relative levels of FAD and free school fishing”); they asked SSP to explain what these implications are and how they affect the outcomes of the management procedure.

66. SSP stated it looked at the historical level of catch from fisheries that operate in regions with significant archipelagic waters. These 2012 archipelagic waters catch components were maintained constant into the future for those regions and gears. SSP further noted that if the assumption of constant 2012 levels do not continue into the future as assumed, this would need to be considered for whatever management procedure is in place, and that the archipelagic waters catch levels be monitored as part of the monitoring strategy.

67. Japan stated it looked forward to a discussion of the relationship between CMM 2021-01 and the harvest strategy, noting the importance of the issue. Commenting on skipjack MSE and the HCR (slide 5 in the presentation), Japan stated it did not support the use of different metrics to control fishing in different fisheries, stating that this would cause gaps or discrimination between fisheries. It again noted the need for consistency in area of application between the harvest strategy and tropical tuna measure and stated that the scope of the harvest strategy should be the exclusive economic zones and high seas, while archipelagic waters should be excluded. As for other fisheries, at present fisheries that take less than 2,000 tonnes are excluded; Japan suggested the same should apply for the skipjack harvest strategy.

68. SSP stated it could run the evaluation with pole and line based on an effort metric. SSP stated that the candidate management procedures excluded archipelagic waters. Regarding exclusion of low-level fisheries (taking less than 2,000 tonnes), this would depend on how the fisheries are built into the evaluation framework, and SSP would have to examine this. SSP also noted that [SC18-MI-IP-12](#) contains some evaluations on the implication of increased catches in archipelagic water on the performance of a candidate management procedure.

69. Japan stated regarding reference year for catch or effort, 2012 could possibly be a good year for purse seine, but that for other fisheries there has a substantial decrease in catch, with 2012 the lowest level. It supported setting catch or effort based on 2001-2004 or 2004 for other fisheries, including pole and line.

70. SSP stated that it is challenging to change baselines between elements of a fleet, and it could be hard to work out what levels are. It noted the discussions that had been held (including most recently at SC18) on these baselines, and their historical nature, based on data availability, but stated that the decision was up to CCMs.

71. The USA stated it shared Japan's concerns with how the harvest strategy would interact with the tropical tuna CMM. It also supported applying constraints, with the request that these should be discussed.

72. SMD01 agreed on the following activities for skipjack management procedures:
- (a) retain HCRs 1, 2, 5, 6, 9 for skipjack management procedures, and provide equivalent results, with a 10% constraint in place for all of these, noting CCMs' differing preferences;
  - (b) analyse the use of effort controls for the pole and line fishery, rather than using catch, and assume a baseline of the 2001-2004 average;
  - (c) use pole and line effort for TRP presentations to WCPFC19; and
  - (d) analyse the status of small-scale fisheries (taking less than 2,000 tonnes) and fisheries in territorial waters within management procedure controls.

#### **4.1.3 Additional work to be conducted by the SSP to support decision-making on management procedures**

73. SSP discussed the additional work that had been raised by CCMs at SMD01 and SC18 to support decision-making on the management procedures. In response to an inquiry from RMI, SSP stated that most of the data for the pole and line fishery was provided by Japan and was assumed to be robust; SSP stated that reliable data should be available from about 2000, if not earlier.

74. SMD01 agreed that SSP would do the following additional work prior to WCPFC19:
- (a) run management procedures (HCRs) 6 & 9 with a 10% constraint;
  - (b) perform specific robustness set runs (see SC outcomes);
  - (c) perform evaluations with effort-based pole and line control; and
  - (d) provide performance indicators for pole and line CPUE in PIMPLE

## **4.2 Management procedures for South Pacific albacore**

75. Rob Scott (SPC-OFP) provided a presentation (*South Pacific Albacore MSE Framework*) on the progress of the South Pacific albacore management procedure and issues to be addressed at SMD01 for further development of candidate management procedures. He noted that [SMD01-BP-04](#) (*Management procedures for South Pacific albacore*) provides background information.

### **4.2.1 Discuss and agree on the settings and assumptions of the management procedures**

76. Japan noted it might take more time to conclude a harvest strategy for South Pacific albacore, but that it would like to see progress on this. Regarding which fisheries should be subject to the management procedure, it suggested that the management procedure should adopt the same scope as CMM 2015-02, and apply only to target fisheries, and not to bycatch fisheries. Japan stated that if the scope was changed from that in the CMM, more discussion would be needed, and that this could lead to a discussion on allocation.

77. SSP stated it would have to consider the options available. It noted that TCC has long had challenges in determining the criteria to use in identifying which vessels target albacore. In addition, SSP noted that CMM 2015-02 applies only south of 20°S, meaning a significant part of the fishery would not be included under the management procedure if it followed the CMM.

78. New Zealand noted that the albacore fishery is a complex fishery, and important for southern CCMs, including New Zealand. It noted that the troll fishery accounted for a small component of the overall catch and was likely to have a different impact on the stock from the longline fishery. New Zealand noted the precedent in the skipjack approach that some smaller fisheries were set aside and that this should be done for the troll fishery as well.

79. Chinese Taipei supported designing the harvest strategy model based on the CMM 2015-02, which maintains the management for south of 20°S, but agreed that additional limits would be needed between 0° and 20°S. Chinese Taipei asked if the separated controls for these two areas could be included in the model.

80. SSP stated that this depended on how the assessment model is set up. It noted it was probably technically feasible, and up to CCMs to determine.

81. The USA stated the objectives for South Pacific albacore in the WCPO are different from those in the Eastern Pacific Ocean (EPO) and stated it did not assume compatible measures should be adopted. It suggested that WCPFC focus on the WCPO, with the MSE centred on management in the WCPO.

82. SSP stated that it could set up management procedure that only operates in the WCPFC Convention Area. It noted that the EPO could be considered in the same way as archipelagic waters in the case of the skipjack, [where](#) archipelagic waters are not included under the management procedure. [Under the 2021 South Pacific albacore](#) stock assessment, fishing in the EPO does have implications for what success management procedures in the WCPO can achieve. SSP stated that managers may consider it valuable to consider what levels of fishing in the EPO may influence the success of management procedures for stocks in the WCPO.

83. French Polynesia stated that South Pacific albacore is considered a Pacific-wide stock, and the WCPFC should use the same approach used by the 2021 stock assessment and consider the stock across the region. It noted that French Polynesia is located in the overlap area, and would like to see the WCPFC and the Inter-American Tropical Tuna Commission (IATTC) work more closely together to address this stock, maybe through a joint working group.

84. The EU supported the statement from French Polynesia and reminded CCMs that WCPFC in recent years has supported stronger collaboration with IATTC in jointly assessing the status of the stock across the Pacific; it noted there is room for increased cooperation.

85. RMI stated that there is work to be done on this important issue for many FFA members. RMI expressed concern regarding the potential for the SMD process to make progress, noting the need to reach agreement on base years, and the implications for a TRP and development of a management procedure. RMI stated its particular interest in the trade-offs in terms of catch and

CPUE and stated that discussion would need to be held by the Commission at WCPFC19. It also noted the need to determine management objectives for South Pacific albacore.

86. SSP summarised the preliminary guidance provided by SMD01 on South Pacific albacore.

87. Japan stated that the troll fishery as well as others that catch small amounts of albacore should not be included in the management procedure.

88. SSP stated that albacore evaluations consider longline and troll fisheries, but not small fisheries that catch small amounts of albacore as bycatch. It noted the need to monitor the catch of albacore in all fisheries in case of a significant increase in catch levels by a fishery not included in the management procedure.

89. The USA inquired regarding the use of simple scalars for the EPO similar to those used for skipjack in archipelagic waters and noted its preference that the management procedure take into account the entire fishery south of the equator.

90. SSP stated that with regard to the EPO, it could run alternate scenarios for EPO catch into the future to [examine the implications for an MP operating within the WCPO only](#).

91. Tokelau, also on behalf of the PNA, stated that when setting a harvest strategy for albacore, any target fisheries should be included, and the management procedure should consider the area south of the equator.

92. Niue supported the comments by the USA and Tokelau. Regarding the EPO, it suggested assuming a level of catch in the EPO and then make assumptions about compatible measures, noting the concern that WCPFC not become dependent on a scenario or approach beyond its control.

93. New Zealand concurred that the fishery should include the area south of the equator. Regarding the troll fishery, New Zealand agreed it could either be left out but monitored or included in the HCR, however, recognizing the differences in the scale and nature of catches taken by the troll and longline fisheries. New Zealand's view is it should not be included in the HCR.

94. SSP noted the need to consider the obligations of MSC-certified fisheries when defining which fisheries and areas that would be included.

95. The USA agreed the troll fishery should be monitored but not included.

96. French Polynesia noted its entire fleet (over 70 vessels) is MSC certified and noted it was very important for French Polynesia that the EPO be included.

97. The USA observed that the 2018 stock assessment covers only the WCPO, while the 2021 stock assessment also covers the EPO, and suggested the use of relatively simple scalars for the EPO to capture the management dynamics.



98. In response to a suggestion by Tokelau to include multiple analyses (examine (i) all target fisheries, (ii) fisheries S of 20°S, (iii) all fisheries but excluding troll, and (iv) all fisheries but excluding pole and line), SSP stated that significant work would be involved. SSP suggested that excluding all fisheries north of 20°S for the management procedure would not work in terms of controlling the stock, and that this was a key requirement for MSC certification. SSP suggested they could reasonably evaluate how large an impact including or excluding the troll fishery would have on the performance of a management procedure.

#### **4.2.2 Additional work to be conducted by the SSP to support decision-making on management procedures**

99. Regarding the geographic application of the SP albacore management procedure, SMD01 asked SSP to include the EPO for work done between now and WCPFC19, to include the entire area south of the equator, and to use the 2021 stock assessment, and regarding the application of the SP albacore management procedure to fisheries, to examine how large an impact the troll fishery has by comparing the procedures with troll included and not included.

### **AGENDA ITEM 5 — PATHWAYS TO COMMISSION DECISION-MAKING**

100. The Commission Chair stated that SMD01 would discuss and consider options (both short-term and long-term) to enhance the decision-making processes of the Commission in the development and implementation of harvest strategies for WCPFC fish stocks. In exploring those options, the SMD would consider how the Commission's decision-making can best be supported by WCPFC subsidiary bodies and SSP; and the contribution and future role of the SMD in enhancing the Commission's decision-making in respect to the development and implementation of harvest strategies. She noted SMD01-BP-05, prepared by the Secretariat.

101. The Executive Director gave a brief review of [SMD01-BP-05 Pathways to Improving the Commission Decision-making](#).

#### **5.1 Pathways to Commission decision-making**

102. The USA stated that the capacity building seminars conducted by SSP were very helpful, and encouraged additional virtual training and simulation opportunities, such as PIMPLE. The USA encouraged development of other interactive approaches to help in understanding harvest strategies. SSP stated that it was working on developing other capacity building programs, including through a greater emphasis on shorter virtual events and online tools. It encouraged CCMs with preferences or requests for specific tools to communicate with SSP.

103. The EU supported further capacity building and development of other tools and suggested this be described through annual reports [submitted by the Secretariat to the Commission](#). It suggested that a forum be developed to facilitate involvement by CCM scientists in the work of harvest strategy development, perhaps through a workshop in a similar process as the Pre-Assessment Workshop (PAW) for stock assessments. It noted the difficulty of scheduling online meetings or workshops when participants are in widely separated time zones.

104. SSP stated it provided a report to SC (SC18-MI-IP-10) that reviewed previous harvest strategy capacity building work undertaken, and that it could provide that to the Commission meeting if desired. It concurred that gathering technical input for the harvest strategy work, separate from the PAW, would be useful.

105. RMI stated it appreciated the general capacity building for RMI and SIDS generally, noting the tools and workshops. RMI noted its uncertainty about where the SMD process would lead, and stated it looked forward to discussing this at WCPFC19.

106. Pew suggested preparing an analysis of how a management procedure would have performed over a previous period, (e.g., 6 years) to indicate its possible performance and whether exceptional circumstances would be triggered.

107. SMD01 requested that SSP provide further capacity building on harvest strategies, and to consider enhancements of PIMPLE and/or other tools that would support improved understanding of harvest strategies by managers.

108. SMD01 agreed that the roles of the SMD are to bridge the gap between science and managers to enhance their understanding of the harvest strategy approach so they can make informed decisions on harvest strategies; capacity building focussed on bridging this gap; and the addition of tools and workshops to enhance the understanding of managers.

## **5.2 Longer-term planning**

### **5.2.1 Schedule and focus of future Dialogue meetings**

109. The USA stated it found the SMD a useful forum for focused discussions on harvest strategies, but that holding SMD01 immediately after SC proved very challenging in terms of preparation. It also noted that information was presented to SC that would have benefitted from more time to process. The USA suggest that future SMD meetings be held slightly later in the year.

110. The EU concurred it was a useful process, noting that the Commission was well behind in terms of the Harvest Strategy Workplan, in part because an SMD had not been held previously. It stated there was clear merit in having the SMD process on a regular basis, and noted in terms of timing that some separation from the SC was needed to enable CCMs to process the outputs from SC. It stated that ideally the SMD should be held in conjunction with the Commission meeting, but that it was flexible on that issue.

111. Japan supported the comments from the USA, noting that the SMD was important to ensure a common understanding regarding the implementation of the harvest strategies. Regarding timing, it suggested holding the SMD meeting in September or October, so that CCMs could explain issues raised at SC to their stakeholders. It noted that a virtual format would be ideal.

112. Kiribati, on behalf of PNA and Tokelau, noted SMD01 was agreed to on a trial basis. They stated that they could not support an SMD in 2023, as the Commission would be focused on a new tropical tuna CMM, and it would be too demanding for small administrations to do both. It stated

that the need for another SMD should be considered by the Commission and stated that the harvest strategy process could not be simply added on to the Commission's other programs. It suggested a need to consider the other elements and noted possibly streamlining the stock assessment or TCC processes.

113. French Polynesia stated that the SMD was very useful to progress harvest strategy matters given the Commission's Harvest Strategy Workplan. It supported having a regularly scheduled meeting and agreed that having more time after SC to digest information and discuss issues could be useful.

114. SMD01 agreed on the value and merits of an SMD, but views differed on the future process. Noting that SMD01 was held on a trial basis in accordance with WCPFC18's decision, the Commission will decide whether another SMD is needed; the timing for any SMD; and whether it should be formalised.

## **5.2.2 Updates to the harvest strategy workplan**

115. SMD01 noted that the management procedure for skipjack was on track for adoption at WCPFC19 but work on the harvest strategy for the other stocks was delayed. SMD01 agreed that the Harvest Strategy Workplan would be updated at WCPFC19.

## **AGENDA ITEM 6 — ADMINISTRATIVE MATTERS**

### **6.1 Next SMD meeting**

116. SMD01 agreed that decisions about the future of the SMD process and the timing and focus of future meetings was to be decided by the Commission.

## **AGENDA ITEM 7 — OTHER MATTERS**

### **7.1 Alignment of parallel processes (e.g., allocation) required to support implementation of harvest strategies**

117. There was no discussion under Agenda Item 7.

## **AGENDA ITEM 8 — REVIEW OF SMD01 AGREED POINTS**

118. SMD01 reviewed the points discussed and reached consensus on the agreed points as listed under each agenda item, and as distributed in the [SMD01 Outcomes Document](#).

## **AGENDA ITEM 9 — CLOSE OF MEETING**

119. The WCPFC Executive Director thanked the SMD Co-Chairs as well as all participants and observed that CCMs generally acknowledged the value and merits of the Dialogue. He stated

he looked forward to discussions by the Commission regarding the future of the SMD process. He stated that the agreed points would be circulated within a few days, and the Summary Report thereafter, for comments by participants.

120. The SC Chair thanked all participants for their constructive interventions. He noted the difficulties presented by the online format but stated this had nonetheless been an effective trial of the SMD process. He also noted his appreciation for the support provided by SSP, the WCPFC Secretariat, and the Commission Chair.

121. The WCPFC Chair thanked the Secretariat and SSP for their support, and CCMs for their close engagement. She closed SMD01 at 1:30 pm Pohnpei time on 22 August 2022.