



**COMMISSION**  
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**TCC Workplan for 2025 - 2027**

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**WCPFC22-2025-IP02**  
**18 November 2025**

**Submitted by the TCC Chair**

This TCC Workplan for 2025 - 2027 will be updated and presented for consideration during WCPFC22.



**COMMISSION**  
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Suva, Fiji (Hybrid)

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**Provisional TCC Workplan 2025 – 2027**

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The Commission, at WCPFC21, adopted the TCC Workplan for 2025-2027 on a provisional basis. This version was prepared taking into consideration the recent standing tasks for TCC, current CMMs, IWG workplans, the TCC20 Outcomes and most WCPFC21 Outcomes.

Noting that there was limited time at WCPFC21 for participants to review the Provisional TCC Workplan 2025 - 2027, the TCC Chair offered to lead an intersessional process in early 2025 for review and further feedback.




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**Provisional TCC Workplan 2025 - 2027**


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## 1. TCC core business tasks (annual)

Article 14(1)(a) provide the Commission with information, technical advice and recommendations relating to the implementation of, and compliance with, conservation and management measures;

- a. Provide technical and compliance-related advice to support the development of harvest strategies, including consideration of the implications of harvest control rules.
  - i. Review and provide input into skipjack monitoring strategy.
  - ii. Review of available data to inform the Commission on climate change impacts to stocks and ecosystems in the WCPO, and the potential effects of climate change on related fishing activities and provide recommendations to the Commission identifying information gaps, necessary analyses, and any additional tasks to ensure the Commission's conservation and management measures contribute to the long-term sustainability of the stocks in accordance with Article 10 of the Convention
- b. Review information about technical and compliance matters arising under existing CMMs.
- c. Make technical and compliance related comments on proposed CMMs.
- d. Review Cooperating Non-Member applications.

Article 14(1)(b) monitor and review compliance with conservation and management measures adopted by the Commission and make such recommendations to the Commission as may be necessary

- e. Monitor and review compliance with conservation and management measures and other obligations stemming from the Convention.
- f. Assessment of IUU fishing vessel nominations and review of fishing vessels currently on the IUU list.
- g. Monitor obligations relating to Small Island Developing States and territories and review requests for capacity development assistance from developing states and territories, that have been identified through annual reporting and the CMS, for inclusion into the WCPFC Strategic Investment Plan.
- h. Review and assess the Commission's implementation of, and compliance with, CMM 2013-06 Conservation and Management Measure on the criteria for the consideration of conservation and management proposals for the previous calendar year.

- i. Review aggregated information on progress to address alleged violations vessels in the CCFS, to identify potential anomalies in the implementation of obligations by a CCM, implementation challenges and/or system failures to take flag state action.
- j. Review progress on addressing/closing CCFS cases older than 24 months.
- k. Prepare a provisional list of obligations to be assessed in the following year's CMS, referring a risk-based approach as a possible guidance.
- l. Review analysis of obligations that have been assessed over time including compliance rating.
- m. Review and provide advice on availability and use of independent data for compliance verification.

Article 14(1)(c) review the implementation of cooperative measures for monitoring, control, surveillance and enforcement adopted by the Commission and make such recommendations to the Commission as may be necessary

- n. Review the implementation of cooperative measures for monitoring, control, surveillance and enforcement adopted by the Commission and make such recommendations to the Commission as may be necessary.
- o. Review Annual report(s) of the WCPFC Secretariat, which should address relevant technical and compliance issues, which may include HSBI, ROP, VMS, RFV, Data Rules, transshipment, port State measures, and note the Executive Director's report on these matters, the Secretariats anticipated forecast of work commitments for TCC, and other issues as appropriate.
- p. Review information about scientific data provision.
- q. Support building the capacity of SIDS, which may include:
  - i. implement observer programs, including training and data management
  - ii. develop and implement MCS information management system (IMS) at a national level
  - iii. improve bycatch reporting
  - iv. set up a system or process for reports on transshipment activities and MTU inspections
  - v. implement minimum standards for Port State measures

1. TCC Priority project specific tasks

Task	2025	2026	2027	Provisional workplan comments:
<i>Article 14(1)(a) information, technical advice and recommendations relating to the implementation of, and compliance with, conservation and management measures</i>				
<b>South Pacific albacore CMM</b>	Provide advice on key components of a new south Pacific albacore CMM			Rolled over from previous TCC workplan, noting advice from SPA-IWG that review of CMM to take place in 2025
<b>Striped Marlin (SW)</b>	Provide advice on clarification of terms “fishing for” /”targeting” as they relate to management of striped marlin.			TCC20 Outcomes para 29
<b>FAD Management Options Working Group</b>	Review matters referred to TCC by the FADMOWG  Consider clarifying the ambiguity around the existing participatory rights text as to which types of vessels should be allowed to engage in FAD-related activities	Review matters referred to TCC by the FADMOWG		TCC20 Outcomes para 34 Possibly other tasks 2025-27 based on FADMOWG workplan
<b>Tropical tuna CMM</b>	Review implementation of tropical tuna CMM 2023-01, including for implementation of footnotes in Att 1 Table 3  Consider the issues of certain CCMs without baseline catch limit under paragraph 48 of CMM 2023-01	Review implementation of tropical tuna CMM 2023-01, including for implementation of footnotes in Att 1 Table 3		Included based on expiry data of CMM 2023-01, and noting there is an annual review requirement.

Task	2025	2026	2027	Provisional workplan comments:
Sharks CMM	Consider what information is necessary to include in the ARP2 to determine the effectiveness of the alternatives and recommend to the Commission changes to Annex 2 of CMM 2024-XX.	Provide advice to inform review of CMM 2022-04	Provide advice to the Commission on the effectiveness of the measures set out in paragraph 9 as alternatives to the obligation contained in paragraph 7 and recommend measures for consideration and possible adoption at WCPFC24.	<p>Included based on SC20 recommended review of CMM 2022-04 in 2027 and reflecting WCPFC21 outcomes in the updated CMM for Sharks</p> <p>Para 13: The TCC shall review and discuss the reports submitted in accordance with Paragraphs 10 and 11 in 2025, 2026, and 2027. TCC23 shall, taking into account, the outcomes from these reports and discussions, advise the Commission on the effectiveness of the measures set out in paragraph 9 as alternatives to the obligation contained in paragraph 7 and recommend measures for consideration and possible adoption at the 2027 annual meeting of the Commission. If, in 2025, 2026, or 2027, a CCM who used the alternative measures does not provide information in accordance with paragraph 10 to ensure the effectiveness of the alternative measures set out in paragraph 9, paragraph 9 will expire in 2027 for that CCM.</p>
Charter notification measure			Review CMM and provide advice on any necessary modifications to [CMM 2024-0x]	<p>Date contingent on WCPFC21 decision on extension period</p> <p>“Analyze framework for the management and control of chartered vessels to promote compliance with CMMs, clarify flag and chartering CCM’s control of chartered vessels, and clarify attribution of catch and effort”</p>

Task	2025	2026	2027	Provisional workplan comments:
<b>Sea Turtles</b>		Review and provide advice on revising CMM 2018-04 (Sea Turtles) to ensure that the reporting requirements are clearly defined and to consider expanding the scope of the measure to include mitigation measures for deep-set longline fisheries		
<b>Seabirds</b>	Consider and provide advice on revisions to the seabirds CMM.  Provide advice on the supporting material, provided by CCMs and the SSP, in support of the review of the seabird measure.			
<b>Pacific Bluefin</b>	Review and provide advice on Annual Reports of Implementation of MCS Measures for Pacific Bluefin reported by CCMs	Review and provide advice on Annual Reports of Implementation of MCS Measures for Pacific Bluefin reported by CCMs	Review and provide advice on Annual Reports of Implementation of MCS Measures for Pacific Bluefin reported by CCMs	WCPFC21 Outcome – CMM for PBF-MCS para 4.4. The Technical and Compliance Committee (TCC) and the Northern Committee (NC) shall separately review the implementation of monitoring, control and surveillance measures reported by CCMs in accordance with this CMM by 2026 and based upon the results of such review, provide recommendations to the Commission.

Task	2025	2026	2027	Provisional workplan comments:
Climate Change		Consider the outcomes and technical information from the CMM vulnerability assessment, and continue to discuss appropriate ways to incorporate climate change into the work of the TCC.	Consider the outcomes and technical information from the CMM vulnerability assessment, and continue to discuss appropriate ways to incorporate climate change into the work of the TCC.	Climate Change workplan * Consider the outcomes and technical information from the CMM vulnerability assessment, and continue to discuss appropriate ways to incorporate climate change into the work of the TCC. * TCC to annually review climate change information to provide the Commission with information, technical advice and recommendations relating to the implementation of, and compliance with, conservation and management measures * TCC's annual review of available information to also provide recommendations to the Commission identifying information gaps, necessary analyses, and any additional tasks to ensure the Commission's conservation and management measures contribute to the long-term sustainability of the stocks in accordance with Article 10 of the Convention.
<b>Article 14(1)(b) monitor and review compliance with conservation and management measures</b>				
Use of ROP data in the Compliance Monitoring Scheme	Further develop and implement sampling methodology			TCC20 Outcomes para 13
Review of "Implementation" obligations	Consider reporting on review of implementation obligations.			TCC20 Outcomes para 18
Review and assess Commission's implementation of CMM 2013-06	Discuss approach to review Commission implementation of CMM 2013-06			TCC20 Outcomes para 73



<b>Task</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>Provisional workplan comments:</b>
<b>Observer participation in the CMS</b>		Review NPD status of data used in the CMS	Develop guidelines for the participation of observers in the Compliance Review Process taking into account the review of NPD status of data.	TCC Chair proposed approach
<b>Corrective Actions</b>			[Develop corrective actions to encourage and incentivize CCM's compliance with the Commission's obligations, where non-compliance is identified.]	
<b>Transshipment</b>	The Commission tasks TCC, commencing in 2025, to use TCC20-2024-DP07 as a reference to continue the work required to strengthen the transshipment measure.			PNA+ proposal to WCPFC21: propose the Commission take a decision that the framework set out in TCC20 DP-07 shall be used by TCC for the assessment of compliance with paragraph 37 of CMM 2009-06, relating to the determination of circumstances where it is impracticable for certain vessels to tranship or land fish at feasible and allowable locations other than on the high seas, as compared to total operating costs, net revenues, or some other meaningful measure of costs and/or revenues.
<b>Marine Pollution</b>		Provide advice on revisions of CMM 2017-04 for consideration by WCPFC23.		

**Article 14(1)(c) implementation of cooperative measures for monitoring, control, surveillance and enforcement**

<b>High Seas Boarding and Inspections</b>	Consider and provide advice to Commission on voluntary regional guidelines and best practices for the use of tools in conducting HSBI			TCC20 Outcomes para 67 – intersessional work to be led by Australia.
<b>Port States Minimum Standards CMM 2017-02</b>	Review CMM 2017-02			TCC20 Outcomes para 61 and 63 – intersessional work to be led by Fiji
<b>Data Exchange</b>	Review progress on establishment/implementation of data exchange arrangements with other RFMOs			TCC20 Outcomes para 62
<b>Electronic Monitoring</b>	<p>Review and support work of the EREMWG, including:</p> <ul style="list-style-type: none"> <li>• review EM data requirements based on relevant CMM requirements not already covered in the ROP minimum data fields (work in conjunction with ROP-IWG);</li> <li>• develop advice on potential changes to the interim EM standards to improve harmonization across RFMOs;</li> <li>• Develop an assurance/audit process for EM standards based on the existing ROP audit model; d. initiate work on EM standards for carrier vessels conducting</li> </ul>	Provide advice on any necessary changes to the interim EM Standards based on the work of the ER and EM IWG and any other relevant information.		TCC20 Outcomes para 55

	<p>transhipment with longline vessels.</p> <ul style="list-style-type: none"> <li>Consider amendment to the CMM 2022-05 Standards, specifications and procedures for the WCPFC RFV would be required to support implementation</li> </ul>			
<b>Transhipment verification</b>				[Tasking contingent on outcomes of TS-IWG discussions at WCPFC21]
<b>ROP-IWG</b>	<p>Consider work of the ROP-IWG, including:</p> <ul style="list-style-type: none"> <li>- Review of ROP minimum data fields</li> <li>- Review of prenotification process, streamlining the inclusion of ROP data in the CCFS</li> <li>- Standardised process for use of ROP data in CCFS</li> <li>- Consideration of adding non-fish transfers to the observer minimum data fields for observing transhipment</li> </ul>			TCC20 Outcomes para 50 and 16



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**Adopted Audit Points**

Adopted Audit Point	Comment
<p><b>1. North Pacific Swordfish Measure</b>  <a href="#">CMM 2023-03 02</a>  <b>Category:</b> Quantitative Limit (QL)</p> <p>The CCM reported in AR Pt2 its level of fishing effort of its fisheries taking North Pacific swordfish in the Convention Area north of 20N and the Secretariat can verify, considering footnote 4 of the CMM, the CCM’s reported information and confirm that the allowable limit has not been exceeded.</p>	<p><i>TCC20 recommended Audit Point (ref: TCC20 Outcomes, paragraph 19)</i></p>
<p><b>2. North Pacific Swordfish Measure</b>  <a href="#">CMM 2023-03 02</a>  <b>Category:</b> Report (RP)</p> <p>The Secretariat confirms that CCM submitted a report of information on all catches and effort by CCM flagged vessels subject to the limits in paragraph 2 using the template at Annex 1 of <a href="#">CMM 2023-03</a>.</p>	<p><i>TCC20 recommended Audit Point (ref: TCC20 Outcomes, paragraph 19)</i></p>
<p><b>3. Tropical Tuna Measure</b>  <a href="#">CMM 2023-01 13</a>  <b>Category:</b> Implementation (IM)</p> <p>CCM submitted a statement in AR Pt2 that:</p> <ol style="list-style-type: none"> <li>a. confirms CCM’s implementation through adoption of a national binding measure that prohibits CCM flagged PS vessels from fishing on FADs between 1 July and 15 August in EEZs and high seas between 20N and 20S.</li> <li>b. describes how CCM is monitoring its flagged PS vessels to ensure they do not fish on FADs in EEZs and on high seas between 20N and 20S and how potential infringements or instances of non-compliance with this requirement are handled.</li> </ol> <p>*FOR PNA MEMBERS THAT NOTIFY EXEMPTIONS AS PER FOOTNOTE 1: In addition to the statements required in a and b for its flagged vessels operating in other EEZs and on the high seas between 20N and 20S, the PNA member submitted a notification to the WCPFC ED within 15 days of its approval of an arrangement to which domestic vessels that the one-and-a-half (1 1/2)-month FAD closure will not apply in PNA member EEZ.</p>	<p><i>Minor adjustment to the audit points adopted for the corresponding paragraph of the previous tropical tuna measure, CMM 2021-01.</i></p>
<p><b>4. Tropical Tuna Measure</b>  <a href="#">2023-01 14</a></p>	<p><i>Minor adjustment to the audit points adopted for the</i></p>

Adopted Audit Point	Comment
<p><b>Category:</b> Implementation (IM)</p> <p>Based on the CCM's notification by the required deadline of its choice of implementation of which additional one month of FAD closure on the high seas, the CCM has submitted a statement that:</p> <p>a. confirms CCM's implementation through adoption of a national binding measure that prohibits CCM flagged PS vessels from fishing on FADs on the high seas between 20N and 20S during the chosen one-month closure period</p> <p>b. describes how CCM is monitoring its flagged PS vessels to ensure they do not fish on FADs on the high seas between 20N and 20S during the chosen additional one-month closure period, and how potential infringements or instances of non-compliance with this requirement are handled.</p>	<p><i>corresponding paragraph of the previous tropical tuna measure, CMM 2021-01.</i></p>
<p><b>5. Tropical Tuna Measure</b> CMM <a href="#">2023-01 38</a> <b>Category:</b> Quantitative Limit (QL)</p> <p>The CCM reported its total bigeye longline catch in its AR Pt2 and the Secretariat can verify the CCM's reported catch level and confirm that the allowable limit has not been exceeded.</p> <p>* FOR any CCM who chose to increase its BET catch limit with a proportional increase of observer coverage, the Secretariat can confirm that the CCM notified the Secretariat by the end of February of the year of fishing operations and can verify and confirm, through ROP/EM data received by WCPFC, that the required observer coverage was achieved according to agreed upon minimum data standards for human and/or electronic monitoring.</p>	<p><i>Builds on the audit point adopted for the corresponding paragraph of the previous tropical tuna measure, CMM 2021-01, some new language has been added to cover the new provision which allows conditional BET catch limit increase subject to increased observer coverage.</i></p>
<p><b>6. Catch and Effort Reporting</b> CMM <a href="#">2022-06 01</a> <b>Category:</b> Implementation (IM)</p> <p>CCM submitted a statement in AR Pt2 that:</p> <p>a. confirms CCM's implementation through adoption of a national binding measure that requires CCM vessel masters to complete an accurate written or electronic log of every day it spends at sea on the high seas of the Convention Area, as required by this paragraph.</p> <p>b. describes how CCM is monitoring and ensuring that its vessel masters complete an accurate written or electronic log of every day it spends at sea on the high seas of the Convention Area as required by this paragraph, and how CCM responds to potential infringements or instances of non-compliance with this requirement.</p> <p>* Secretariat to note the footnote for fishing vessels less than 24 meters in length and troll vessels targeting albacore and the respective time frame for the mandatory implementation of electronic log.</p>	<p><i>Minor adjustment to the audit points adopted for the corresponding paragraph of the previous version of the CMM, CMM 2013-05.</i></p>
<p><b>7. Catch and Effort Reporting Measure</b> CMM <a href="#">2022-06 02</a> <b>Category:</b> Implementation (IM)</p> <p>CCM submitted a statement in AR Pt2 that:</p> <p>a. confirms CCM's implementation through adoption of a national binding measure that requires CCM vessel masters to record the minimum specified information in para <a href="#">2(i-iii)</a> of <a href="#">CMM 2022-06</a>.</p>	<p><i>Minor adjustment to the audit points adopted for the corresponding paragraph of the previous version of the CMM, CMM 2013-05.</i></p>

Adopted Audit Point	Comment
<p>b. describes how CCM is monitoring and ensuring that its vessel masters record the minimum specified information, and how CCM responds to potential infringements or instances of noncompliance with this requirement.</p>	
<p><b>8. Catch and Effort Reporting Measure</b>  CMM <a href="#">2022-06 03</a>  <b>Category:</b> Implementation (IM)</p> <p>CCM submitted a statement in AR Pt2 that:</p> <p>a. confirms its implementation through adoption of a national binding measure that requires the master of each vessel referred to in paragraph 1 to provide the required information electronically to its national authority or its designated institution within the time frame set out in this paragraph.</p> <p>b. describes how CCM is monitoring and ensuring that the master of each vessel referred to in paragraph 1 provide the required information electronically to its national authority or its designated institution within the time frame set out in this paragraph and how CCM responds to potential infringements or instances of non-compliance with this requirement.</p>	<p><i>Some adjustment to the audit points adopted for the corresponding paragraph of the previous version of the CMM, CMM 2013-05.</i></p>
<p><b>9. Catch and Effort Reporting Measure</b>  CMM <a href="#">2022-06 04</a>  <b>Category:</b> Report (RP)</p> <p>The Secretariat confirms that CCM submitted the required information electronically (as set out in paragraph 2) by April 30 of the following year as required by Scientific Data to be provided to the Commission.</p>	<p><i>New obligation not previously reviewed through the CMR.</i></p>
<p><b>10. Catch and Effort Reporting Measure</b>  CMM <a href="#">2022-06 05</a>  <b>Category:</b> Implementation (IM)</p> <p>CCM submitted a statement in ARPt2 that:</p> <p>a. confirms CCM’s implementation through adoption of a national binding measure that requires CCM vessel masters to provide an accurate and unaltered original or copy of the information required under CMM 2022-06 pertaining to the current trip on board the vessel at all times during the course of a trip</p> <p>b. describes how CCM is monitoring and ensuring that CCM vessel masters provide an accurate and unaltered original or copy of the required information pertaining to the current trip on board the vessel at all times during the course of a trip, and how the CCM responds to potential infringements or instances of non-compliance with this requirement.</p>	<p><i>Minor adjustment to the audit points adopted for the corresponding paragraph of the previous version of the CMM, CMM 2013-05.</i></p>
<p><b>11. Record of Fishing Vessels Measure</b>  CMM <a href="#">2018-06 6(s)</a>  <b>Category:</b> Report (RP)</p> <p>The Secretariat confirms that, based on VMS data, RFV records and Fished/Not Fished reports, IMO/LR number information is included in the RFV or was submitted to the Secretariat for CCM vessels that were eligible for IMO number or Lloyd’s Register number and fished in the Convention Area beyond the CCM’s area of national jurisdiction in the reporting year.</p>	<p><i>CMM 2018-06 6s has not been previously assessed as a standalone obligation. It has previously been assessed in CMR as CMM 2022-05 02 (formerly CMM 2014-03 02) which has an agreed audit point.</i></p>



## 2024 FINAL COMPLIANCE MONITORING REPORT (COVERING 2023 ACTIVITIES)

### Executive Summary

#### I. INTRODUCTION

1. WCPFC21 undertook its annual review of compliance by CCMs in accordance with the Compliance Monitoring Scheme (CMS) adopted at WCPFC20 – CMM 2023-04. The main change from the earlier CMS was the inclusion of paragraph 15 to address the imbalance between the information available for monitoring compliance between the longline and purse seine fisheries through a random sampling mechanism developed by the Secretariat, in consultation with the Scientific Services Provider. The new measure also embedded a number of key elements of the work undertaken to date on the CMS, in particular the work on audit points.
2. In 2024 TCC20 and WCPFC21 assessed CCMs' compliance over RY2023 against a list of obligations agreed to at WCPFC20. The CMS provides for TCC to identify a compliance assessment for each specific obligation that is assessed. Where audit points have been agreed, the review of the dCMR and application of a compliance score was undertaken based on these for RY2023.
3. In accordance with paragraph 7 and Annex I of CMM 2023-04, the following statuses were considered in making the assessments: Compliant, Non-Compliant, Priority Non-Compliant, Capacity Assistance Needed, and CMM Review or Audit Point Review.

#### II. DEVELOPMENT OF THE PROVISIONAL COMPLIANCE MONITORING REPORT BY TCC20

4. TCC20 reviewed the draft Compliance Monitoring Report (dCMR for RY2023) for thirty-eight (38) CCMs and for one obligation for one (1) collective group of Members in a closed session. Some CCMs reiterated the importance of transparency in all aspects of the Commission's work and supported holding the CMR process in open sessions in the future.

#### III. COMPLIANCE REVIEW PROCESS

5. TCC20 considered the CMR Review Process in advance of conducting its review (**WCPFC-TCC20-2024-08**).
6. TCC20 agreed that it would prioritise consideration of the 101 potential compliance issues identified by the Secretariat in the full draft Compliance Monitoring Report (dCMR). The breakdown of potential issues in the dCMR was as follows:

- 12** Potential Issues for Quantitative Limits (QL)
- 58** Potential Issues for Implementation Obligations (IM)
- 28** Potential Issues for Report Obligations (RP)
- 3** Deadline (DL) Potential Issues.

7. TCC20 agreed that in line with the approach taken in previous CMR reviews, CCMs may raise additional potential issues not identified in the dCMR. Consistent with the practice of past years, the review of the dCMR would be undertaken obligation by obligation, not by CCM. In addition, TCC20 agreed to limit the practice of allowing CCMs to provide additional information verbally to situations of clarification only.

8. The dCMR had been prepared based on the list of obligations for assessment agreed by WCPFC20 (**WCPFC-TCC20-2024-08 Annex 3**). Where audit points had been agreed, the review of the dCMR and the application of a compliance score were undertaken based on these.

9. Where a status of “Non-Compliant” or “Priority Non-Compliant” was assigned, TCC20 determined in accordance with CMM 2023-04, paragraph 42, that CCMs may provide additional information up to 21 days after TCC20, noting that additional information is limited to filling an information gap.

10. The CMR SWG met in the margins of WCPFC21 to consider additional information CCM’s provided up to 21 days after TCC20 and whether this additional information warranted a change in CCM’s compliance status.

11. TCC20 confirmed that breaches of quantitative limits would be assigned a status of “Priority Non-Compliant” in accordance with criteria a. and c. in the Compliance Status Table of CMM 2023-04.

12. The CMR process for TCC20 was undertaken in three stages:

- 1) Review of Capacity Assistance Needed statuses from previous years;
- 2) Review of updates on outstanding implementation obligations from 2022;
- 3) Review of issues arising from the dCMR and application of a compliance status for 2023.

13. TCC20 agreed not to review the aggregate tables this year due to issues arising from consideration of a novel sampling mechanism, which is still to be developed.

#### IV. SUMMARY OF COMPLIANCE REVIEW ASSESSMENTS

##### a. Capacity Assistance Needs

14. TCC20 received reports from CCMs on the progress of Capacity Development Plans covering activities in 2020, 2021, 2022 and 2023 (**WCPFC-TCC20-2024-28**). As a general point TCC20 requested CCMs with ongoing capacity needs to update their Capacity Development Plans, to provide an overview of progress towards meeting the obligation and where needed to revise the expected completion date.

15. The outcomes of the discussions are in the table and information set out below.

Obligation	Capacity Assistance Needed Ongoing	Capacity Assistance Needed Completed
<b>Scientific data provision (SciData 03)</b>	<b>Indonesia</b> (RY2016, RY 2017, RY2018, RY2019, RY2020, RY2021, RY2022, RY2023)	



Obligation	Capacity Assistance Needed Ongoing	Capacity Assistance Needed Completed
Requirements in the event of unintentional encircling of cetaceans in the purse seine net, including reporting requirements (CMM 2011-03 paragraph 2)	Vanuatu (RY2022)	Vanuatu (RY2023)
Annual report on estimated number of releases and status upon release of oceanic whitetip sharks (CMM 2011-04 paragraph 3) Annual report on estimated number of releases and status upon release of silky sharks (CMM 2013-08 paragraph 3)	Indonesia (RY2019, RY2020, RY2021, RY2022, RY2023)	
100% purse seine observer coverage: specific rules for vessels fishing exclusively in areas under its national jurisdiction (CMM 2018-01 paragraph 35 / CMM 2021-01 33)	Indonesia (RY2020, RY2021, RY2022, RY2023)	
100% purse seine observer coverage for vessels fishing exclusively in areas under national jurisdiction (CMM 2018-01 paragraph 35/CMM 2021-01 33)	Philippines (RY2018, RY2019, RY2020, RY2021, RY2022, RY2023)	
CCMs to require longline vessels to carry and use line cutters and de-hookers to handle and promptly release sea turtles, as well as dip-nets where appropriate (CMM 2018-04 paragraph 06)	French Polynesia (RY2020, RY2021, RY2022)	French Polynesia (RY2023)
Report in Part 2 Annual Report describing any alternative measures from those in CMM 2019-04 SHARKS which are applied by CCMs in areas under national jurisdiction (CMM 2019-04 paragraph 5)	Vanuatu (RY2021, RY2022)	Vanuatu (RY2023) – TCC also clarified that this obligation is not applicable

Obligation	Capacity Assistance Needed Ongoing	Capacity Assistance Needed Completed
Measures necessary to require all sharks retained on board their vessels are fully utilized and ensure the prohibition of finning - including consideration of paragraph 10 endorsed alternative measures (CMM 2019-04 paragraphs 7-10)	Vanuatu (RY2021, RY2022)	Vanuatu (RY2023)
Annual report on shark fins attached/alternative measures and meeting of deadline (CMM 2019-04 paragraph 11)	Vanuatu (RY2021, RY2022)	Vanuatu (RY2023) – TCC also clarified that this obligation is not applicable
Measures to prevent fishing vessels from retaining on board (including for crew consumption), transshipping and landing any fins harvested in contravention of CMM 2019-04 (CMM 2019-04 paragraph 12)	Vanuatu (RY2022)	Vanuatu (RY2023)
Requirement to take measures necessary to ensure carcasses and their corresponding fins are landed or transhipped together, in a manner that allows inspectors to verify (CMM 2019-04 paragraph 13)	Vanuatu (RY2021, RY 2022)	Vanuatu (RY2023)
Requirement to implement at least one option to minimize bycatch of sharks in longline fisheries, and notify choice and whenever the selected option is changed (CMM 2019-04 paragraph 14-15)	Vanuatu (RY2021, RY 2022)	Vanuatu (RY2023)
CCMs to develop and report their management plans for longline fisheries targetting sharks in their Part 2 Annual Report (CMM 2019-04 paragraph 16)	Vanuatu (RY2021, RY 2022)	Vanuatu (RY2023) – TCC also clarified that this obligation is not applicable

Obligation	Capacity Assistance Needed Ongoing	Capacity Assistance Needed Completed
Requirement to ensure that sharks that are caught but are not to be retained, are hauled alongside the vessel in order to facilitate species identification (only applicable where observer or EM camera is present, and where safe for crew and observers) (CMM 2019-04 paragraph 18)	Vanuatu (RY2021, RY 2022)	Vanuatu (RY2023)
Requirement to prohibit retaining/transshipping/storing/landing oceanic whitetip & silky sharks (CMM 2019-04 paragraph 20(01))	Vanuatu (RY 2022)	Vanuatu (RY2023)
Requirement to release oceanic whitetip & silky sharks asap (CMM 2019-04 paragraph 20(02))	Vanuatu (RY 2022)	Vanuatu (RY2023)
Requirement that if oceanic whitetip & silky sharks caught, must be given to government or discarded (CMM 2019-04 paragraph 20(03))	Vanuatu (RY2021, RY 2022)	Vanuatu (RY2023)
Prohibition for purse seine setting on whale sharks, retaining/transshipping/landing of whale sharks (CMM 2019-04 paragraph 21(01-7))	Vanuatu (RY2021, RY 2022)	Vanuatu (RY2023)
Requirements to prohibit retaining/transshipping/storing/landing mobulid rays (CMM 2019-05 paragraphs 04-06, 08,10)	Vanuatu (RY2021, RY 2022)	Vanuatu (RY 2023)
Pacific bluefin required report CMM 2020-02 05	Vanuatu (RY2021)	Vanuatu (RY2023)
Pacific bluefin required report on implementation CMM 2020-02 11	Vanuatu (RY2021)	Vanuatu (RY2023)

Obligation	Capacity Assistance Needed Ongoing	Capacity Assistance Needed Completed

a. **Indonesia** (SciData 03): Indonesia reported that it continued to face challenges in submitting all the required data to SPC, noting that they are at 96% of operational data provision but still need additional time to get to 100%. TCC noted that for RY 2022 Indonesia’s capacity assistance needs in their Capacity Development Plan were not yet met and maintained the CAN status.

b. **Vanuatu** (CMM 2011-03 paragraph 2): Vanuatu reported that the requirements relating to unintentional encircling of cetaceans in the purse seine net, were being implemented through general provisions in their fisheries legislation and licence terms and conditions, pending the development of more specific regulations. On this basis the obligations are being met and capacity assistance is no longer required. TCC20 noted that Vanuatu had sought CAN status at TCC19 for this and other obligations due to an understanding that its fisheries legislation was not sufficiently specific. As Vanuatu’s legislation, licence terms and conditions, and monitoring and control are now considered sufficient, CAN status is no longer required.

c. **Indonesia** (CMM 2011-04 paragraph 3 / CMM 2013-08 paragraph 3): Indonesia reported that there was some progress in meeting the shark catch reporting requirements. It reports catch to Commission in aggregate of total numbers of those species and since 2022 the catches of sharks and its status (release, dead, alive) were partly provided in its Annual Report Part 1. Data on by-catches of sharks by species by gear is still challenging for Indonesia to provide. Additional assistance is needed to improve data collection, including through the holding of a further SPC workshop. TCC20 noted that for RY 2022 Indonesia’s capacity assistance needs in their CDP were not yet met and maintained the CAN status.

d. **Indonesia** (CMM 2018-01 paragraph 35) Indonesia reported ongoing issues with regard to human resources and the number of available observers to meet the 100% observer coverage in national waters. However, it had made progress. When it first had a Capacity Development Plan, Indonesia had no observer coverage in the EEZ and high seas. It increased its coverage to 40-50% coverage, and in recent years to about 80%. TCC20 noted its expectation that the CAN Plan would be updated with the timeframe for completion of the 100% observer coverage. TCC20 noted that for RY 2022 Indonesia’s capacity assistance needs in their CDP were not yet met and maintained the CAN status.

e. **Philippines:** (CMM 2018-01 paragraph 35) The Philippines reported that it did not have enough observers for 100% coverage and were in discussion with industry on the cost of deployment. It reported that on the Pacific side of the Philippines EEZ, observer coverage was about 60%. TCC20 noted that for RY 2022 Philippine’s capacity assistance needs in their CDP were not yet met and maintained the CAN status.

f. **French Polynesia:** (CMM 2018-04) French Polynesia reported that it had regulations and best practice guidelines in place for mitigation, handling and safe release of turtles. TCC20 noted that for RY 2022 French Polynesia its capacity assistance needs had been met.

g. **Vanuatu:** (CMM 2019-04) Vanuatu reported that the requirements relating to the shark measure were being implemented through general provisions in their fisheries legislation and licence terms and conditions, pending the development of more specific regulations. On this basis the obligations are being met and capacity assistance is no longer required. TCC20 noted that Vanuatu had sought CAN status at TCC19 for obligations in the shark measure due to an understanding that its fisheries legislation was not sufficiently specific. As Vanuatu’s legislation, licence terms and conditions, and monitoring and control are now considered sufficient, CAN status is no longer required.

h. **Vanuatu:** (CMM 2020-02) Vanuatu reported that its required reports under the Pacific bluefin tuna measure had been submitted. TCC20 noted that for RY 2022 and RY2023 Vanuatu its capacity assistance needs had been met.

16. TCC20 also agreed that Fiji and Vanuatu would be assessed as CAN for a number of obligations for RY2023 and they submitted Capacity Development Plans as required by CMM 2023-04. The obligations for which capacity assistance needs for Fiji and Vanuatu have been identified are set out in Section VI below.

#### b. Review of updates on outstanding implementation obligations from 2022

17. TCC20 recognised that the trial for a streamlined consideration of IM obligations should assist in future CMR reviews. TCC20 recalled that where a CCM has provided a statement of implementation that met the Audit Point, that status would not change unless there is an amendment to the obligation or if the circumstances of the CCM change (**WCPFC-TCC20-2024-11**).

18. TCC20 reviewed the list of twelve (12) issues for eight (8) implementation obligations for four (4) CCMs from RY2022 where TCC assessed that most applicable CCMs have met the adopted Audit Point. TCC20 reviewed progress by the remaining few CCMs to resolve their implementation gaps identified from previous year/s. The obligation, CCM and statement of implementation is set out in the table below.

Obligation	CCM CMR issue	Statement of IM meets the audit point
<b>Prohibit purse seine setting on cetaceans, if animal is sighted prior to commencement of the set (CMM 2011-03 01)</b>	<b>Indonesia (RY2022)</b>	Implementation gap remains
<b>Take measures necessary to prevent fishing vessels from retaining on board (including for crew consumption), transshipping and landing any fins harvested in contravention of CMM 2019-04 (CMM 2019-04 12)</b>	<b>Philippines (RY2022)</b>	Implementation gap resolved as of September 2023
<b>Take measures necessary to ensure carcasses and their corresponding fins are landed or transhipped together, in a manner that allows inspectors to verify (CMM 2019-04 13)</b>	<b>Philippines (RY2022)</b>	Implementation gap resolved as of September 2023

Obligation	CCM CMR issue	Statement of IM meets the audit point
Ensure that sharks that are caught but are not to be retained, are hauled alongside the vessel in order to facilitate species identification (only applicable where observer or EM camera is present, and where safe for crew and observers) (CMM 2019-04 18)	Philippines (RY2021, RY2022)	Implementation gap resolved as of September 2023
Ensure that sharks that are caught but are not to be retained, are hauled alongside the vessel in order to facilitate species identification (only applicable where observer or EM camera is present, and where safe for crew and observers) (CMM 2019-04 18)	United States (RY2021, RY2022)	Implementation gap resolved as of June 2023
Requirement to release oceanic whitetip & silky sharks asap (CMM 2019-04 20 (02))	Philippines (RY2021, RY2022)	Implementation gap resolved as of September 2023
If oceanic whitetip & silky sharks caught, must be given to govt or discarded (CMM 2019-04 20 (03))	Philippines (RY2021, RY2022)	Implementation gap resolved as of September 2023
If oceanic whitetip & silky sharks caught, must be given to govt or discarded (CMM 2019-04 20 (03))	Nicaragua (RY2021, RY2022)	Implementation gap remains
Prohibit purse seine setting on whale sharks, retaining/transshipping/landing of whale sharks (CMM 2019-04 21 (01-07))	Indonesia (RY2020, 2021, 2022)	Implementation gap remains
Prohibit purse seine setting on whale sharks, retaining/transshipping/landing of whale sharks (CMM 2019-04 21 (01-07))	Nicaragua (RY2022)	Implementation gap remains
Purse seine 3-month FAD closure (1 July - 30 September) (CMM 2021-01 14)	Indonesia (RY2018, RY2019, RY2020, RY2021, RY2022)	Implementation gap remains
Purse seine 3-month FAD closure (1 July - 30 September) (CMM 2021-01 14)	Philippines (RY2018, RY2019, RY2020, RY2021, RY2022)	Implementation gap remains

19. TCC20 also confirmed that French Polynesia's Implementation gap was resolved for **CMM 2018-04 06**, and that Vanuatu's Implementation gaps were resolved for the following obligations:

- CMM 2011-03 02
- CMM 2019-04 07-10
- CMM 2019-04 12
- CMM 2019-04 13
- CMM 2019-04 14-15

- **CMM 2019-04 18**
- **CMM 2019-04 20 (01)**
- **CMM 2019-04 20 (02)**
- **CMM 2019-04 02 (03)**
- **CMM 2019-04 21 (01-07)**
- **CMM 2019-05 (04-06, 08,10)**

### c. Review of dCMR and issues arising

20. As per the process undertaken in previous CMR reviews, the review of issues arising from the dCMR was undertaken in the TCC20 plenary session.
21. The dCMR was prepared based on the list of obligations for assessment agreed by WCPFC20. The review of the dCMR prioritised those potential issues identified by the Secretariat. Following this an opportunity was provided for CCMs to raise other issues.
22. There were no obligations which were ‘not assessed’ for CCMs. There were no assessments on which consensus could not be reached at TCC20.
23. TCC20 noted the new compliance status in CMM 2023-04 of ‘CMM Review or Audit Point Review’. CMM 2023-04 sets out the criteria for the compliance score (there is a lack of clarity on the requirements of an obligation) and the response (the Commission shall review that obligation and clarify its requirements). TCC20 sought to differentiate between ‘CMM Review’ on the one hand and ‘Audit Point Review’ on the other hand.
- a) *CMM Review*
24. There were no obligations that TCC20 assessed as CMM Review.
- b) *Audit Point Review*
25. There was one obligation that TCC20 assessed as Audit Point Review:
- **CMM 2006-04 para 1: SW Striped Marlin (QL):** TCC20 noted that there was an issue with the requirement to limit the number of fishing vessels ‘fishing for’ SW Striped Marlin south of 15°S to 2000 – 2004 levels. While paragraph 4 makes a distinction between CCMs vessels fishing for SW Striped Marlin and those taking that species as bycatch, different views were expressed as to whether ‘fishing for’ meant a targeted fishery or whether ‘fishing for’ included where SW Striped Marlin were caught as a bycatch. Some members considered that CMM Review implied that the whole CMM needed to be reviewed, whereas Audit Point Review provided an avenue to review the obligation. TCC20 assessed the obligation as ‘Audit Point Review’ on the understanding that this does not imply the audit point necessarily has to be changed, but that the interpretation of the obligation requires clarification. TCC20 agreed that this issue would be considered further in plenary under Agenda item 8.1.
26. In addition, TCC20 recommended to WCPFC21 that certain CMMs, obligations or Audit Points would benefit from further consideration by the Commission to assist in assessing compliance. These together with some other matters are considered in Section V below.
27. The RY2023 assessments are set out in Appendix 1. Consistent with the Final Compliance Monitoring Reports for 2022, CCMs evaluated as “Non-Compliant” or “Priority Non-Compliant” for obligations are strongly encouraged to address their implementation issues.

## V. ISSUES RELATED TO SPECIFIC CMMs OR OTHER OBLIGATIONS

28. TCC20 noted that the development of agreed audit points had assisted in addressing previous issues encountered at TCC where there were different interpretations of the obligations and different views on how implementation of the obligation was to be assessed. Nevertheless, there were some issues identified by CCMs which were of an ongoing nature. Some of these required further consideration by the Commission.

- **CMM 2012-03 02 (QL):** Some CCMs provided the background to this provision and the original exemption from the 5% observer coverage for fisheries fishing for fresh fish beyond the national jurisdiction in area N 20°N. This raised the ongoing relationship between the 5% observer coverage requirement in CMM 2012-03 and CMM 2018-05. An additional difficulty is that WCPFC data requirements do not capture information which specifies if the vessel is catching fish for fresh or frozen landing. Some CCMs questioned the applicability of CMM 2012-03 in light of the broader observer requirements and the reasons for the original exemption for the fishery. There were differing views on whether this was 'CMM Review' or 'Audit Point Review'. TCC20 took no decision on this and maintained the approach adopted in the dCMR.
- **CMM 2018-06 11 (RP):** There were different approaches taken to the requirement to report extraordinary circumstances as to why IMO or LR number is not able to be obtained. TCC20 noted the requirement in paragraph 6 of CMM 2018-06 to have an IMO number. If there is no number, paragraph 11 of the CMM requires the reporting of extraordinary circumstances. Some CCMs provided explanations as to why IMO numbers were not obtained, and other CCMs considered that administrative reasons for non-compliance were not 'extraordinary circumstances'. TCC20 agreed that vessels fishing beyond the flag CCMs waters in the Convention Area should have an IMO number, and recommended that the Commission consider 1) developing a new audit point for CMM 2018-06 paragraph 6(s) and 2) provide clarity on the obligation in paragraph 11 of CMM 2018-06 and its Audit Point.
- **CMM 2018-06 18 (IM):** TCC20 agreed with the Secretariat's interpretation that the application of the obligation to prohibit landings in ports or transshipments to vessels not on the RFV, is not limited to CCMs with ports in the Convention Area. TCC20 clarified that the obligation is applicable to all CCMs with ports where fish caught in the Convention Area may be landed or transhipped.
- **CMM 2021-01 25 (QL):** TCC20 noted that there were a number of discrepancies between the data provided by CCMs and that verified by the SPC on high seas purse seine effort. TCC20 encouraged CCMs to continue to work with SPC to resolve any such discrepancies.
- **CMM 2021-02 04 (QL):** Some CCMs noted that there had been exceptional upsurge in bycatch of Pacific bluefin tuna within their EEZs, which resulted in two CCMs exceeding their existing limits under the CMM 2021-02. These limits had been adopted when the Pacific bluefin tuna was in a poor state. TCC20 noted the Northern Committee has considered more appropriate arrangements for the management of Pacific bluefin tuna, including bycatch fisheries in the Southern Hemisphere, which will be considered by the WCPFC21.



## VI. REQUESTS FOR ASSISTANCE AND CAPACITY BUILDING

29. Some targeted assistance was identified to assist SIDS and other CCMs in implementing specific obligations during the dCMR process. These are identified in the table and information set out below.

Obligation	CMR section	CCM	Capacity Assistance Needed Score
<b>CMM 2014-02 9a</b> <i>Fishing vessels comply with Commission standards including being fitted with ALC/MTU that meet requirements</i>	Implementation	Fiji	Capacity Assistance Needed (RY2023)
<b>CMM 2014-02 9a VMS SSPs 2.8</b> <i>Provision of ALC/MTU 'VTAF' data</i>	Report	Fiji	Capacity Assistance Needed (RY2023)
<b>CMM 2018-05 Annex C 06</b> <i>CCMs shall achieve 5% coverage of the effort in each fishery under the jurisdiction of the Commission</i>	Report	Vanuatu	Capacity Assistance Needed (RY2023)
<b>CMM 2018-06 09</b> <i>Submission by Member to ED a list of all vessels on national record in previous year, noting FISHED or DID NOT FISH for each vessel</i>	Report	Fiji	Capacity Assistance Needed (RY2023)

30. Some areas of capacity assistance were identified by certain CCMs in their Annual Report Part II covering RY2023 and that were outside the scope of the list of obligations to be assessed in the CMS in 2024 are listed in the table below (see **WCPFC-TCC20-2024-28**).

Obligation	Capacity assistance requested by CCMs in their Annual Report Part 2 covering 2023 reporting year
<b>CMM 2013-07 Paras 01-03</b> General Provisions	<p><b>FSM</b> is a small island developing state and SIDS are the recipients of such assistances.</p> <p><b>French Polynesia:</b> FP is a developing territory.</p> <p><b>Indonesia</b> is included in the SIDS (Small Island Developing States) partnership was officially announced at the Third International Conference on Small Island Developing States, held from September 1 to 4, 2014, in Apia, Samoa. As a committed partner, Indonesia has actively participated in several multi-stakeholder partnership initiatives aimed at supporting SIDS. Notably, Indonesia has been instrumental in the Coral Triangle Initiative, which is operational in several SIDS, including Papua New Guinea and the Solomon Islands. This collaboration underscores Indonesia's dedication to fostering sustainable development and environmental conservation in small island nations. For</p>

Obligation	Capacity assistance requested by CCMs in their Annual Report Part 2 covering 2023 reporting year
	<p>further details on these initiatives, you can visit the following links:  <a href="http://www.sids2014.org/partnerships/countries/?country=219">http://www.sids2014.org/partnerships/countries/?country=219</a>  <a href="http://www.sids2014.org/partnerships/countries/?country=238">http://www.sids2014.org/partnerships/countries/?country=238"</a></p> <p>In mid-2020, Indonesia strongly advocated for the mobilization of adequate resources and support for Small Island Developing States (SIDS) during a high-level discussion. The discussion focused on mobilizing international solidarity, accelerating action, and exploring new pathways to achieve the 2030 Agenda and the Samoa Pathway for SIDS. Indonesia's call underscores its commitment to supporting the sustainable development and resilience of small island nations, highlighting the need for global cooperation to address the unique challenges faced by SIDS.</p> <p>Indonesia unequivocally reaffirmed its steadfast commitment to the sustainable development and advancement of Small Island Developing States (SIDS) at the 4th SIDS Conference on May 28th, 2024, in Antigua and Barbuda. By recognizing the unique challenges faced by these nations and enhancing partnerships based on mutual interests, Indonesia aims to foster significant progress and shared prosperity.</p> <p><b>Kiribati</b> is one of the SIDS countries that depend much on assistance from regional and sub-regional agencies such as WCPFC, FFA and PNA including donor partners.</p> <p><b>RMI</b> is a SIDS with limited capacity and we expect continued cooperation and assistance from non-SIDS CCMs in our ongoing capacity building needs and efforts</p> <p><b>Nauru</b> will continue to implement this measure where possible through FSMA and other arrangements</p> <p><b>New Caledonia</b> is one of the SIDS and territories and has received no assistance in this category in 2023. New Caledonia neither received any request in this regard in 2023.</p> <p><b>PNG:</b> fully recognizes the SIDs and territories special requirements in the Convention Area in implementing this measure and other applicable measures and shall request assistance if and when required.</p> <p><b>Samoa</b> as a SIDS have not sought or requested any assistance in accordance with this CMM in the reported year</p> <p><b>Tonga</b> one of the SIDS countries but it cooperates with regional and sub-regional initiatives to support the development of SIDS fisheries. Tonga is the recipient of the non-SIDs country assistance.</p> <p><b>Vanuatu</b> cooperates with other SIDS+T and non-SIDS directly and through the Commission to assist SIDS+T develop our fisheries. Example is the work on SPA, through the SPG group, FFA and through the WCPFC SPA IWG.</p>

Obligation	Capacity assistance requested by CCMs in their Annual Report Part 2 covering 2023 reporting year
<p><b>CMM 2013-07 Paras 04-05</b> Capacity development for personnel</p>	<p><b>FSM</b> is a small developing state and SIDS are the recipients of such assistance. FSM has received capacity development assistance provided through regional and sub-regional programs.</p> <p><b>Fiji</b> did not make a submission for 2024; however Fiji needs training and attachments in the following areas: 1. WCPFC MCS data analysis; 2. Training on Commission VMS; 3. CMR</p> <p><b>French Polynesia:</b> FP is a developing territory.</p> <p><b>Indonesia</b> (<i>as per above response for 01-03</i>)</p> <p><b>Kiribati</b> is a SIDS.</p> <p><b>RMI</b> is a SIDS with limited capacity and we expect continued cooperation and assistance from non-SIDS CCMs in our ongoing capacity building needs and efforts</p> <p><b>Nauru</b> will continue to support this measure and implement where possible such as FMSA arrangement and other arrangements</p> <p><b>New Caledonia</b> is one of the SIDS and territories and has received no assistance in this category in 2023. New Caledonia neither received any request in this regard in 2023.</p> <p><b>PNG</b> has identified and seek assistance to facilitate workshops on Compliance Case File Management.</p> <p><b>Vanuatu:</b> As mentioned earlier, requests have been submitted for assistance on observer EM related training and support.</p>
<p><b>CMM 2013-07 Paras 06-07</b> Assistance with technology transfers</p>	<p><b>FSM:</b> Collaborating with other SIDS on the development of technology including EM/ER and other digital transformation.</p> <p><b>Fiji</b> has progressed with initial training and implementation towards 100% vessel coverage on e-reporting and continues to work with SPC that provide the backend support in-country issues experienced during the phase of implementation.</p> <p><b>Indonesia</b> (<i>as per above response for 01-03</i>)</p> <p><b>Kiribati</b> as small island developing states depend much on technology assistance from regional agencies and development partners.</p> <p><b>RMI</b> is a SIDS with limited capacity and we expect continued cooperation and assistance from non-SIDS CCMs in our ongoing capacity building needs and efforts</p> <p><b>PNG</b> is yet to identify technology needs and request for assistance. (Labour Standards / Electronic Reporting)</p> <p><b>Nauru</b> supports the transferring of fisheries technology to accelerate the social and economic development of SIDS/</p>

Obligation	Capacity assistance requested by CCMs in their Annual Report Part 2 covering 2023 reporting year
	<p><b>New Caledonia</b> is one of the SIDS and territories and has received no assistance in this category in 2023. New Caledonia neither received any request in this regard in 2023.</p> <p><b>Samoa</b> has not provided or requested for any assistance as per CMM 2013-07 19 in the reported year, however, Samoa will liaise with the relevant organizations when assistance is needed</p> <p><b>Vanuatu:</b> welcomes assistance relating to fisheries science and technology and with the aim of accelerating the social and economic development of VU. Anticipating more capacity assistance on other areas to ensure CCM personnel are well versed with obligations and related requirements. This includes training of personnel on VMS and E-PSMA requirements. Given the broader definition of Technology Transfers, it would be more on the intellectual side, whereby Secretariat provides capacity assistance, enhancing capabilities such as understanding E-PSMA, Bio-economics, VMS gaps etc. The FFA Secretariat also provided technological support work relating to data, VMS and other related matters.</p>
<p><b>CMM 2013-07 Paras 08-09</b> Assistance in areas of fisheries conservation and management</p>	<p><b>French Polynesia:</b> FP is a developing territory.</p> <p><b>Indonesia</b> (as per above response for 01-03)</p> <p><b>Kiribati:</b> is one of the SIDS countries depending on assistance from non-SIDS countries.</p> <p><b>RMI</b> is a SIDS with limited capacity and we expect continued cooperation and assistance from non-SIDS CCMs in our ongoing capacity building needs and efforts</p> <p><b>Nauru</b> will continue to support this measure and assist SIDS where possible to implement their Commission obligations and ensure the collection and analysis of fisheries data</p> <p><b>New Caledonia</b> is one of the SIDS and territories and has received no assistance in this category in 2023. New Caledonia neither received any request in this regard in 2023.</p> <p><b>PNG:</b> Adopted CMMs that are applicable and consistent to the national obligations and existing fishery.</p> <p><b>Samoa</b> is considered as SIDS Country and did not utilize any assistance for this CMM however, Samoa plans to liaise with relevant organisations to seek assistance</p> <p><b>Tonga</b> one of the SIDs countries although our current national capacity does not provide Tonga the ability to assist capacity development of other SIDs. Tonga is the recipient of capacity development assistance.</p> <p><b>Vanuatu</b> has received capacity assistance on this and also has the opportunity to still assist SIDs, territories on areas such as data sharing, verification through TUFFMAN 2 systems in accordance with data sharing requirements as per</p>

Obligation	Capacity assistance requested by CCMs in their Annual Report Part 2 covering 2023 reporting year
	relevant instruments and participate in MCS operations, surveillance and monitoring.
<p><b>CMM 2013-07 Paras 10-11</b> Assistance in the areas of Monitoring, Control and surveillance</p>	<p><b>FSM:</b> participation in regional/sub-regional fora on MCS. FSM's joint cooperation efforts amongst the FFA membership in maritime surveillance. FSM's participation in implementations of new CMM's, bilateral arrangements to implement ROP, transshipment monitoring, CDS, EM/ER, PSM, FAD tracking and sharing MCS data when necessary.</p> <p><b>Indonesia</b> (<i>as per above response for 01-03</i>)</p> <p><b>Kiribati:</b> As small island state with only one patrol boat to monitor three separated EEZ. Kiribati greatly need assistance from developed partners to assist in both aerial and surface surveillance coverage.</p> <p><b>RMI</b> is a SIDS with limited capacity and we expect continued cooperation and assistance from non-SIDS CCMs in our ongoing capacity building needs and efforts</p> <p><b>Nauru</b> will continue to support this measure and ensuring SIDS/T participates in regional and sub-regional MCS activities through FFA and PNA programs</p> <p><b>New Caledonia</b> is one of the SIDS and territories and has received no assistance in this category in 2023. New Caledonia neither received any request in this regard in 2023.</p> <p><b>PNG:</b> cooperates with international, regional, sub regional and bilateral arrangements to ensure effective MCS and Enforcement activities within the region such as FAO, FFA under regional surveillance programs, Ship Rider Agreement and other bilateral Arrangements including MCS exchange programs.</p> <p><b>Samoa</b> is a SIDS country. However, when assistance is needed regarding this audit point, Samoa will liaise with the relevant organizations to request support and assistance if needed.</p> <p><b>Tonga:</b> participates in sea monitoring control and surveillance and also enforcement activities through bilateral arrangements with territories in the Convention area. Tonga was involved in regional surveillance patrol operation Ika Moana, Kurukuru by providing Navy support Unit Voea Ngahau Koula. The National Monitoring Control Committee (MCC), includes the Port Authority, Ministry of Fisheries, Marine Department, Police Department, Customs Department, and the Navy. The MCC Centre is established by the committee and is housed at Navy Station. MCC conducts a national monitoring within our EEZ once per quarter. Aerial surveillance was provided by FFA in all quarters during the reporting period, and no offenses were reported.</p> <p>The New Zealand Government has a bilateral agreement with Tonga on Aerial Surveillance during the Tuimoana Operation through the NTSA System. During the reporting period, Tonga participated in SPC/FFA regional training for observers, observers refresh training, and newly recruited 10 observers on board, SPC conducted bio-sampling training with observers and staff. Few staff</p>

Obligation	Capacity assistance requested by CCMs in their Annual Report Part 2 covering 2023 reporting year
	<p>join Certificate IV on Coastal and Aquaculture, Diploma on Investigation and Prosecution Cert, Certificate Level IV on Fisheries Enforcement and Compliance, and Law of the Seas Courses.</p> <p>SPC also conducted training on e-reporting basically for data collection through OLLO, Onboard, and onshore, TAILS, and Close Kin Mark Recapture Sampling training, and SPC also conducted training the Science Division on stock assessment for sea cucumbers. FFA financially supported Tonga in conducting the e-PSM training and Tonga was the first country to implement the e-PSM, Dockside Boarding, NTSA training, and Aerial Surveillance Training.</p> <p><b>Vanuatu</b> actively participated in numerous regional operations on surveillance and monitoring, both assets and personnel as required by mandate of such engagements. This includes MCS operations coordinated by the FFA RFSC. - Seeking further capacity assistance in this area to ensure its personnel and line agencies respond and operate more efficiently whenever needed.</p>
<p><b>CMM 2013-07 Paras 12-18</b> support for the Domestic Fisheries Sector and Tuna-fisheries related businesses and market access</p>	<p><b>FSM:</b> PNA Market related initiatives like the development of MSC processes currently in place, implementation of CDS and PSM, and FSM's collaboration with importing CCM's.</p> <p><b>Fiji</b> has a 100% domestic tuna sector. As such, 2023 was focused on getting our fleets and processing plants back to full operation. As part of Fiji's 2023 support towards the tuna sector, Government allocated 90,000 USD to support markets access for MSC certification. Additionally, to boost and streamline fish processing, Fiji has begun work digitalise vessel arrivals and catch verification to support catch verification process and market demands. There is also an assessment and review of internal processors to ensure that appropriate activities are developed to support Fiji's domestic industry.</p> <p><b>French Polynesia:</b> FP is a developing territory.</p> <p><b>Indonesia</b> (<i>as per above response for 01-03</i>)</p> <p><b>RMI</b> No additional assistance required at this time however, the RMI may seek further assistance with onshore developments and market access requirements.</p> <p><b>Nauru</b> will continue to support and implement this measure through the FSMA arrangement and where possible and appropriate.</p> <p><b>New Caledonia</b> is one of the SIDS and territories and has received no assistance in this category in 2023. New Caledonia neither received any request in this regard in 2023.</p> <p><b>Samoa</b> is a SIDS country. However, when assistance is needed regarding this audit point, Samoa will liaise with the relevant organizations to request support and assistance.</p> <p><b>Tonga:</b> To support the Domestic Fisheries Sector and Tuna-fisheries businesses and market access, Tonga implemented it under the Fisheries Management Act 2002, Section 7, Sub-section 36, Fishing Vessels License Term and Condition, Fishing Agreement and Access Agreement with the Fishing Company and Tuna</p>

Obligation	Capacity assistance requested by CCMs in their Annual Report Part 2 covering 2023 reporting year
	<p>Fisheries Management Plan.</p> <p>Ministry of Fisheries established a Development Scheme for the Fisheries Sector to improve the business climate and reduce the cost of doing business a Fishing Consumer Tax Exemption was approved in June 2013 exempting imported fishing gear, bait, and essential supplies from customs tariffs. In 2013 the operation of the Tu’imatamoana fish market and Processing Facilities was transferred under an MOU to the National Fisheries Committee (Fishing Industries Committee). In addition, the Ministry of Fisheries established a Soft Loan Scheme known Fisheries Development and Export Fund (FDEF) to support the sector market Access. Not only that but the Ministry assisted the Fishing Companies in developing and improving their business planning and management, and offered a comprehensive training and capacity development program.</p> <p>In 2020, Tonga ratified the PACER Plus Agreement is a Regional Development-Centre Trade Agreement designed to support Tonga in regional and Global Trade. Tonga exports fish to international markets (Australia, NZ, USA, Fiji, Pago Pago, Hawaii, Chinese Taipei, Hong Kong, and Singapore). The compliance Division inspects 100% of every export before handing the Export Permit to the companies, and entry the export data into the system and reports every quarter.</p> <p><b>Vanuatu</b> is a SIDS that definitely needs capacity assistance for both domestic and international markets. CCM sees the importance in having such assistance as it will boost domestic and international market standards as well. CCM needs capacity assistance on international market access given the rise and interest in foreign investments in fisheries.</p>

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## **Appendix 2: 2024 Final Compliance and Monitoring Report (for 2023 activities)**

Obligation Category: Quantitative Limits (QL) Implementation (IM) Report (RP) Reporting deadline (DL)

CMM/Data Provision	Compliance or Implementation Status				2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> , 8 <sup>th</sup> , 9 <sup>th</sup> , Year with a Potential Compliance Issue
	Compliant	Non-Compliant	Priority Non-Compliant	Capacity Assistance Needed	
<b><i>CMM 2004-03: Specifications for the Marking and Identification of Fishing Vessels</i></b>					
<p style="text-align: center;"><i>Para 2</i></p> <p style="text-align: center;"><b>IM</b></p> <p><i>Fishing vessel marking and technical specifications</i></p>	Australia, Canada, China, Cook Islands, European Union, Federated States of Micronesia, Fiji, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Zealand, Papua New Guinea, Philippines, Solomon Islands, Chinese Taipei, Tonga, Tuvalu, United States, Vanuatu, Curacao, El Salvador, Liberia, Panama, Thailand	Nicaragua	Ecuador		Ecuador [2]

CMM/Data Provision	Compliance or Implementation Status				2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> , 8 <sup>th</sup> , 9 <sup>th</sup> , Year with a Potential Compliance Issue
	Compliant	Non-Compliant	Priority Non-Compliant	Capacity Assistance Needed	
<b>CMM 2006-04: Conservation and Management Measure for Striped Marlin in the Southwest Pacific</b>					
<p><i>Para 1</i> <b>QL</b> <i>Limit number of vessels fishing for MSL south of 15S to 2000 – 2004 levels.</i></p>	<i>Audit Point Review</i>				
<b>CMM 2008-04: Conservation and Management Measure to Prohibit the Use of Large-Scale Driftnets on the High Seas of the Convention Area</b>					
<p><i>Para 2</i> <b>IM</b> <i>Measures necessary to prohibit use by their vessels of large-scale driftnets in the high seas.</i></p>	<p>Australia, Canada, China, Cook Islands, European Union, Federated State of Micronesia, Fiji, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Zealand, Papua New Guinea, Solomon Islands, Chinese Taipei, Tuvalu, United States, Vanuatu Curacao, El Salvador, Liberia Panama, Thailand</p>	<p>Philippines, Nicaragua</p>			

CMM/Data Provision	Compliance or Implementation Status				2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> , 8 <sup>th</sup> , 9 <sup>th</sup> , Year with a Potential Compliance Issue
	Compliant	Non-Compliant	Priority Non-Compliant	Capacity Assistance Needed	
<b><i>CMM 2009-03: Conservation and Management for Swordfish</i></b>					
<p><b>Para 1</b> <b>QL</b> <i>Limit number of vessels fishing for SWO south of 20S to the number in any one year between 2000-2005.</i></p>	Australia, China, European Union, Indonesia, Japan, Korea, New Zealand, Philippines, Chinese Taipei, United States				
<p><b>Para 2</b> <b>QL</b> <i>Conservation and management for swordfish</i></p>	Australia, China, European Union, Indonesia, Japan, Korea, New Zealand, Philippines, Chinese Taipei, United States				

**CMM 2009-06: Conservation and Management Measure on the Regulation of Transshipment**

<p align="center"><b>Para 11</b> <b>RP</b> <i>Annual report on all transshipment activities covered by this Measure (including transshipment activities that occur in ports or EEZs) in accordance with the specified guidelines (Annex II)</i></p>	<p>Australia, China, European Union, Federated States of Micronesia, Fiji, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Zealand, Papua New Guinea, Philippines, Solomon Islands, Chinese Taipei, Tuvalu, United States, Vanuatu Panama</p>				
<p align="center"><b>Para 35 a (ii)</b> <b>RP</b> <i>Flag State's notification to the Secretariat on its flag vessels that are authorized to tranship on the high seas.</i></p>	<p>China, Japan, Korea, Nauru, Philippines, Chinese Taipei, United States of America, Vanuatu Liberia, Panama, Thailand</p>				
<p align="center"><b>Para 35 a (iii)</b> <b>RP</b> <i>WCPFC Transshipment Advance Notification (including fields in Annex III).</i></p>	<p>China, Japan, Korea, Chinese Taipei, Vanuatu Panama</p>				
<p align="center"><b>Para 35 a (iv)</b> <b>RP</b> <i>WCPFC Transshipment Advance Notification (including fields in Annex</i></p>	<p>China, Japan, Korea, Chinese Taipei, Vanuatu Panama</p>				

III).					
<b>CMM 2010-01: Conservation Management Measure for the North Pacific Striped Marlin</b>					
<p><b>Para 5</b> <b>QL</b> <i>NP striped marlin catch limits applicable to CCMs with vessels fishing in the Convention Area north of the equator: commencing 2011</i></p>	China, Indonesia, Japan, Korea, Philippines, Chinese Taipei, United States				
<b>CMM 2012-03: Conservation and Management Measure for Implementing the ROP by vessels fishing north of 20N</b>					
<p><b>Para 2</b> <b>QL</b> <i>CCMs shall achieve 5% coverage of the effort of each fishery fishing for fresh fish beyond the national jurisdiction in area N 20N.</i></p>	United States		Japan		
<b>CMM 2014-02: Conservation and Management Measure for the Commission VMS</b>					
<p><b>Para 9(a)</b> <b>IM</b> <i>Fishing vessels comply with the Commission standards for WCPFC VMS including being fitted with ALC/MTU that meet Commission requirements</i></p>	Australia, Canada, Cook Islands, China, European Union, Federated States of Micronesia, Indonesia, Kiribati, Marshall Islands, Nauru, New Zealand, Papua New Guinea, Solomon Islands, Tonga, Chinese Taipei, Tuvalu, Vanuatu, United States	Panama	Japan Korea Philippines	Fiji	Japan [7] Korea [2] Philippines [9]

	Curacao, El Salvador, Ecuador, Liberia Thailand				
<i>Para 9(a) – VMS SSPs para 2.8 RP Provision of ALC/MTU 'VTAF' data</i>	Australia, Canada, China, Cook Islands, European Union, Federated States of Micronesia, Indonesia, Japan, Kiribati, Marshall Islands, Nauru, New Zealand, Papua New Guinea, Solomon Islands, Tonga, Chinese Taipei, Tuvalu, United States, Vanuatu Curacao, Ecuador, El Salvador, Liberia, Panama, Thailand	Korea Philippines		Fiji	
<b><i>CMM 2015-02: Conservation and Management Measure for South Pacific albacore</i></b>					
<i>Para 1 QL Limit on number of vessels actively fishing for SP ALB south of 20S above 2005 or 2000-2004 levels.</i>	Australia, China, European Union, Indonesia, Japan Korea, New Zealand, Philippines, Chinese Taipei, United States				
<i>Para 4 RP Annual report of SP ALB by vessel by species.</i>	Australia, China, Cook Islands, European Union, Fiji, French Polynesia, Indonesia,				

	Japan, Kiribati, Korea, Niue, New Caledonia, New Zealand, Philippines, Solomon Islands, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu				
<b>CMM 2017-02: Conservation and Management Measure on Minimum Standards for Port State Measures</b>					
<b>Para 8</b> <b>RP</b> <i>Port CCMs to ensure fisheries inspections are conducted by Government Authorized Inspectors.</i>	Australia, France, Japan, New Zealand, Philippines, Solomon Islands, United States Thailand				
<b>Para 9-10</b> <b>RP</b> <i>Minimum requirement for vessels to be inspected by Port CCMs.</i>	Australia, France, Japan, New Zealand, Philippines, Solomon Islands, United States Thailand				
<b>Para 17</b> <b>RP</b> <i>Expected actions by Port CCMs where there is sufficient evidence of IUU fishing.</i>	Australia, France, Japan, New Zealand, Philippines, Solomon Islands, United States Thailand				
<b>Para 19 and 21</b> <b>RP</b> <i>Requirement to notify and maintain current Port CCM contacts with WCPFC and advise of Port State measures applying</i>	Australia, France, Japan, New Zealand, Philippines, Solomon Island, United States Thailand				



<i>in designated ports.</i>					
<p><b>Para 26</b> <b>RP</b> <i>Requirement to encourage use of ports of SIDS to the extent practicable.</i></p>	<p>Australia, Canada, China, Cook Islands, European Union, Fiji, Federated States of Micronesia, France, French Polynesia, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, Niue, New Zealand, New Caledonia, Panama, Papua New Guinea, Philippines, Palau, Solomon Islands, Samoa, Tonga, Tokelau, Tuvalu, Chinese Taipei, United States, Vanuatu, Curacao, Ecuador, El Salvador, Liberia, Nicaragua, Thailand</p>	<p>Vietnam</p>			
<b>CMM 2017-04: Conservation and Management Measure on Marine Pollution</b>					
<p><b>Para 2</b> <b>IM</b> <i>Prohibit fishing vessels from discharging any plastics (including plastic packaging, items containing plastic and polystyrene) but not including fishing gear.</i></p>	<p>Australia, Canada, China, Cook Islands, European Union, Federated States of Micronesia, Fiji, French Polynesia, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Caledonia, New Zealand, Papua New Guinea, Philippines,</p>	<p>Ecuador Nicaragua</p>			

	Solomon Islands, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu  Curacao, El Salvador, Liberia, Panama, Thailand				
<b>Para 5 RP</b> <i>Encourage adoption of additional measures to reduce marine pollution through retrieval of abandoned, lost or discarded fishing gear for discharge at port reception facilities and to report the location of abandoned, lost or discarded fishing gear.</i>	Australia, Canada, Cook Islands, China, European Union, Fiji, Federated States of Micronesia, French Polynesia, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Caledonia, New Zealand, Papua New Guinea, Philippines, Palau, Solomon Islands, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu  Curacao, Ecuador, El Salvador, Liberia, Nicaragua, Panama, Thailand				
<b>Para 8 RP</b> <i>Requirement to actively support SIDS and Territories through provision of adequate port facilities for</i>	Australia, Canada, China, European Union, Fiji, France, Indonesia, Japan, Korea, New Zealand, Panama, Papua New Guinea,	Nicaragua			

<i>receiving and appropriately disposing of waste from fishing vessels.</i>	Philippines, Chinese Taipei, United States, Vanuatu Ecuador, El Salvador				
<b>CMM 2018-03: Conservation and Management Measure to mitigate the impact of fishing for highly migratory fish stocks on seabirds</b>					
<b>Para 01,02,06</b> <b>IM</b> <i>Required longline mitigation measures to reduce incidental catch of seabirds applying north of 23N or south of 25S.</i>	Australia, Canada, China, European Union, Federated States of Micronesia, Japan, Korea, New Zealand, Chinese Taipei, United States, Vanuatu				
<b>Para 8</b> <b>RP</b> <i>Report on which mitigation measures are used north of 23N or south of 25S, as well as technical specifications. Subsequent years include advice on any changes.</i>	Australia, China, European Union, Japan, Korea, New Zealand, Chinese Taipei, Vanuatu				
<b>CMM 2018-04: Conservation and Management of Sea Turtles</b>					
<b>Para 04</b> <b>RP</b> <i>CCMs to ensure fishermen use proper mitigation and handling techniques and foster the recovery of any turtles that are incidentally captured.</i>	Australia, Canada, China, Cook Islands, European Union, Fiji, Federated States of Micronesia, French Polynesia Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Caledonia, New Zealand, Papua New Guinea, Philippines, Solomon Island, Tuvalu,	Nicaragua			

	Chinese Taipei, United States, Vanuatu Ecuador, El Salvador				
<i>Para 07d</i> <b>IM</b> <i>CCMs to ensure vessels fishing in a shallow-set manner are required to report all incidents involving sea turtles.</i>	Australia, Canada, European Union, Fiji, Japan, New Zealand, Tonga, Chinese Taipei, United States, Vanuatu				
<b>CMM 2018-05: Conservation and Management Measure for the Regional Observer Programme</b>					
<i>Para 07</i> <b>IM</b> <i>Vessels to be prepared to accept an observer from the ROP, if required.</i>	Australia, Canada, China Cook Islands, European Union, Federated states of Micronesia, Fiji, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Zealand, Papua New Guinea, Philippines, Solomon Islands, Tonga, Tuvalu, Chinese Taipei, United States of America, Vanuatu Curacao, El Salvador, Liberia, Panama, Thailand	Ecuador Nicaragua			
<i>Para 09</i> <b>IM</b> <i>CCMs shall source observers for their vessels as determined by</i>	Australia, Canada, China, Cook Islands, European Union, Federated States of Micronesia, Fiji,	Ecuador Nicaragua			

<p><i>the Commission.</i></p>	<p>Indonesia, Japan, Kiribati, Korea, Marshall Island, Nauru, New Zealand, Papua New Guinea, Philippines, Solomon Islands, Tonga, Tuvalu, Chinese Taipei, United States of America, Vanuatu Curacao, El Salvador, Liberia, Panama, Thailand</p>				
<p><b>Annex C 06</b> <b>RP</b> <i>CCMs shall achieve 5% coverage of the effort in each fishery under the jurisdiction of the Commission.</i></p>	<p>Australia, China, Cook Islands, European Union, Fiji, Federated State of Micronesia, French Polynesia, Indonesia, Japan, Kiribati, Korea, New Caledonia New Zealand, Tonga, Tuvalu, Chinese Taipei, United States</p>			<p>Vanuatu</p>	
<p><b>CMM 2018-06: Conservation and Management Measure on the Record of Fishing Vessels and Authorization to Fish</b></p>					
<p><b>Para 02</b> <b>IM</b> <i>CCMs to ensure its fishing vessels only tranship to/from, and provide bunkering for/ are bunkered by or otherwise supported by vessels on the RFV.</i></p>	<p>Australia, Canada, China, Cook Islands, European Union, Fiji, Federates States of Micronesia, French Polynesia, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Zealand, New Caledonia, Papua, New</p>	<p>Nicaragua</p>			

	Guinea, Philippines, Solomon Islands, Chinese Taipei, Tuvalu, United States, Vanuatu Curacao, Ecuador, El Salvador, Liberia, Panamá, Thailand				
<p><b>Para 09</b> <b>RP</b> <i>Submission by Member to ED a list of all vessels on national record in previous year, noting FISHED or DID NOT FISH for each vessel.</i></p>	Australia, Canada, China, Cook Islands, European Union, China, Fiji, Federated States of Micronesia, Indonesia, French Polynesia, Japan, Kiribati, Korea, Marshal Islands, Nauru, New Zealand, New Caledonia, Papua New Guinea, Solomon Islands, Thailand, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu Curacao, Ecuador, El Salvador, Liberia, Nicaragua, Panama			Fiji	
<p><b>Para 11</b> <b>RP</b> <i>Requirement to report extraordinary circumstances as to why IMO or LR number is not able to be obtained.</i></p>	Australia, Canada, Cook Islands, China, Fiji, Federated States of Micronesia, Japan, Kiribati, Marshall Islands, New Caledonia, Tonga Curacao, Liberia, Panama	Philippines United States			
<p><b>Para 17</b></p>	Australia, Canada, China, Cook Islands,	Nicaragua			

<p><b>IM</b></p> <p><i>Flag CCM to ensure fishing vessels are on RFV is accordance with this CMM. Vessels not on RFV shall be deemed not authorized to fish for, retain on board, tranship or land HMFS in Convention Area beyond the national jurisdiction of its flag State.</i></p>	<p>European Union, Federates States of Micronesia, French Polynesia, Fiji, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Zealand, New Caledonia, Palau, Papua New Guinea, Philippines, Samoa, Solomon Islands, Chinese Taipei, Tonga, Tuvalu, United States, Vanuatu Curacao, Ecuador, El Salvador, Liberia, Panama, Thailand</p>				
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<p><b>Para 18</b> <b>IM</b> <i>CCMs to prohibit landings in ports or transshipment to vessels not on RFV.</i></p>	<p>Australia, Canada, Cook Islands, China, European Union, Fiji, Federated states of Micronesia, Indonesia, Japan, Kiribati, Korea, Marshall Islands, New Caledonia, Nauru, New Zealand, Papua New Guinea, Philippines, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu El Salvador, Liberia, Panama, Thailand Vietnam</p>	<p>France Curacao Ecuador Nicaragua</p>			
<p><b>CMM 2019-05: Conservation and Management Measure on Mobulid Rays caught in association with fisheries in the WCPFC Convention Area</b></p>					
<p><b>Para 03</b> <b>IM</b> <i>Prohibit targeted fishing or intentional setting on mobulid rays.</i></p>	<p>Australia, Canada, Cook Islands, China, European Union, Federated States of Micronesia, French Polynesia, Fiji, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Zealand, New Caledonia, Papua New Guinea, Philippines, Solomon Islands, Chinese Taipei, Tuvalu,</p>	<p>United States Ecuador Nicaragua</p>			



	Vanuatu El Salvador				
<i>Para 04-06,08,10</i> <b>IM</b> <i>Prohibit retaining/transshipping /storing/landing mobulid rays.</i>	Australia, Canada, China, Cook Islands, European Union, Fiji, Federated States of Micronesia, French Polynesia, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Caledonia, New Zealand, Papua New Guinea, Philippines, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, Chinese Taipei, Vanuatu Curacao, Ecuador, El Salvador, Liberia, Panama		United States Nicaragua		United States[3] Nicaragua[3]
<b>CMM 2019-07: Conservation Management Measure for the Establishment of a List of IUU Vessels for the WCPFC</b>					
<i>Para 22</i> <b>RP</b> <i>CCMs shall take all necessary non-discriminatory measures, including under their applicable legislation, to take certain actions in respect of vessels listed on the WCPFC IUU Vessel List.</i>	Australia, Canada, China, Cook Islands, European Union, Fiji, Federated States of Micronesia, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, Niue, New Caledonia, New Zealand, Papua New Guinea, Philippines, Palau,				

	Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu Curacao, Ecuador, El Salvador, Liberia, Nicaragua, Panama, Thailand, Viet Nam				
<b>CMM 2021-01: Conservation and Management Measure for Tropical Tuna</b>					
<b>Para 24</b> <b>QL</b> <i>Purse seine EEZ limits (for skipjack, yellowfin and bigeye tuna) and advice from other coastal CCMs of EEZ limits to be applied.</i>	Australia, Cook Islands, Fiji, French Polynesia, Indonesia, Japan, Korea, Niue, New Caledonia, New Zealand, Philippines, Samoa, Tonga, Chinese Taipei, United States, Vanuatu		Wallis and Futuna		Wallis and Futuna [7]
<b>Para 25</b> <b>QL</b> <i>High seas purse seine effort limits applying 20N to 20S.</i>	China, European Union, Indonesia, Japan, Korea New Zealand, Philippines, Chinese Taipei, United States Ecuador, El Salvador		Nicaragua		
<b>Para 37</b> <b>QL</b> <i>Bigeye longline annual catch limits for 2021-2023, with adjustment to be made for any overage.</i>	China, Indonesia Japan, Korea, Chinese Taipei, United States				
<b>Para 40</b> <b>QL</b> <i>Bigeye longline catch limits by flag for certain</i>	Australia, Canada, European Union, New Zealand, Philippines				

<p><i>other members which caught less than 2000t in 2004.</i></p>					
<p><b>Para 42</b> <b>QL</b> <i>Limit by flag on number of purse seine vessels &gt;24m with freezing capacity between 20N and 20S.</i></p>	<p>Australia, Canada, China, European Union, Japan, Korea, New Zealand, Philippines, Chinese Taipei, United States, Ecuador, El Salvador</p>		<p>Nicaragua</p>		
<p><b>Para 44</b> <b>QL</b> <i>Limit by flag on number of longline vessels with freezing capacity targeting bigeye above the current level (applying domestic quotas are exempt).</i></p>	<p>China, Japan, Korea, New Zealand Philippines, Chinese Taipei, United States</p>				
<p><b>Para 45</b> <b>QL</b> <i>Limit by flag on number of ice-chilled longline vessels targeting bigeye and landing exclusively fresh fish above the current level or above the number of current licenses under established limited entry programmes (applying domestic quotas are exempt).</i></p>	<p>China, Japan, Philippines, United States</p>				

<p><b>Att 2 03</b> <b>RP</b> <i>Philippines vessels Entry/Exit reports for HSP1-SMA.</i></p>			Philippines		Philippines [5]
<b>CMM 2021-02: Conservation and Management Measure for Pacific Bluefin Tuna</b>					
<p><b>Para 2</b> <b>QL</b> <i>Total effort by vessels for Pacific Bluefin limited to 2002 - 2004 levels in Area north of 20N.</i></p>	Australia, Canada China, Japan Korea, New Zealand Philippines, Chinese Taipei United States				
<p><b>Para 3</b> <b>QL</b> <i>Pacific bluefin tuna catch limits for Japan, Korea and Chinese Taipei applying from 2022.</i></p>	Japan, Korea, Chinese Taipei				
<p><b>Para 04</b> <b>QL</b> <i>Pacific Bluefin 30kg or larger catch limits, by flag for certain other members.</i></p>	Canada, China, European Union, Philippines, United States		Australia, New Zealand		
<b>CMM 2022-04: Conservation and Management Measure for Sharks</b>					

<p><i>Para 25</i> <b>RP</b> <i>Report on Implementation of CMM 2022-04 Sharks (Part 2 Annual Report).</i></p>	<p>Australia, Canada, Cook Islands, China, European Union, Fiji, Federated States of Micronesia, France, French Polynesia, Indonesia, Japan Kiribati, Korea, Marshall Islands, Nauru, New Caledonia, New Zealand, Niue, Papua New Guinea, Philippines, Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu Curacao, Ecuador, El Salvador, Liberia, Nicaragua, Panama, Thailand</p>				
<p><i>Para 25</i> <b>DL</b> <i>Report on Implementation of CMM 2022-04 Sharks (Part 2 Annual Report)</i></p>	<p>Australia, Canada, China, Cook Islands, European Union, Fiji, Federated States of Micronesia, France, French Polynesia, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Caledonia, New Zealand, Papua New Guinea, Philippines, Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Chinese Taipei,</p>	<p>Niue, Nicaragua</p>			

	United States, Vanuatu Curacao, Ecuador, El Salvador, Liberia, Panama, Thailand				
<b>Scientific Data to be provided</b>					
<i>Section 01</i> <i>Estimate of Annual</i> <i>Catches</i> <b>RP</b>	Australia, Canada, China, Cook Islands, European Union, Fiji, Federated States of Micronesia, French Polynesia, Indonesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Caledonia, New Zealand, Papua New Guinea, Philippines, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu Ecuador, El Salvador				

<p><i>Section 02 number of vessels active</i> <b>RP</b></p>	<p>Australia, Canada, China, Cook Islands, European Union, Fiji, French Polynesia, Federated States of Micronesia, Indonesia, Japan, Kiribati, Korea Marshall Islands, Nauru, New Caledonia, New Zealand, Papua New Guinea, Philippines, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu Ecuador, El Salvador</p>				
<p><i>Section 03 operational level catch and effort</i> <i>Data</i> <b>RP</b></p>	<p>Australia, Canada, China, Cook Islands, European Union, Fiji, Federated States of Micronesia, French Polynesia, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Caledonia, New Zealand, Papua New Guinea, Philippines, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu Ecuador, El Salvador</p>			<p>Indonesia</p>	<p>Indonesia [8]</p>

<p><i>Section 05 size composition data</i> <b>RP</b></p>	<p>Australia, Canada, China, Cook Islands, European Union, Fiji, Federated States of Micronesia, French Polynesia, Indonesia Japan, Kiribati, Korea, Marshall Islands, Nauru, New Caledonia, New Zealand, Papua New Guinea, Philippines, Palau, Solomon Islands, Samoa, Tonga, Tuvalu, Chinese Taipei, United States, Vanuatu, El Salvador</p>	<p>Ecuador</p>			
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**COMMISSION**  
**Twenty-First Regular Session**  
28 November to 3 December 2024  
Suva, Fiji (Hybrid)

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**List of Obligations for review by the Compliance Monitoring Scheme in 2025**

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\*\* : updated or new Audit Points were adopted at WCPFC21

22 Quantitative Limit Obligations<sup>1</sup>

- [CMM 2006-04 01](#) **QL** Limit number of fishing vessels fishing for MLS south of 15S to 2000 – 2004 levels.
- [CMM 2009-03 01](#) **QL** Limit number of vessels fishing for SWO south of 20S to the number in any one year between 2000-2005.
- [CMM 2009-03 02](#) **QL** Limit the catch of SWO by its vessels in area south of 20S to the amount in any one year during 2000-2006.
- [CMM 2009-06 29](#) **QL** Limit on purse seine vessels transshipment outside of port to vessels that have received an exemption from the Commission. Where applicable, flag CCM authorisation should be vessel-specific and address any specific conditions identified by the Commission.
- [CMM 2009-06 34](#) **QL** Ban on high seas transshipment, unless a CCM has determined impracticability in accordance with para 37 guidelines, and has advised the Commission of such.
- [CMM 2010-01 05](#) **QL** NP striped marlin catch limits applicable to CCMs with vessels fishing in the Convention Area north of the equator: commencing 2011.
- **\*\***[CMM 2012-03 02](#) **QL** CCMs shall achieve 5% coverage of the effort of each fishery fishing for fresh fish beyond the national jurisdiction in area N 20N. **\*\***
- [CMM 2015-02 01](#) **QL** Limit on number of vessels actively fishing for SP ALB south of 20S above 2005 or 2000-2004 levels.
- [CMM 2016-02 06](#) **QL** Transshipment is prohibited in E-HSP from 1 Jan 2019
- [CMM 2019-03 02](#) **QL** CCMs take measures to ensure level of fishing effort by vessels fishing for NP ALB is not increased

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<sup>1</sup> [CMM 2023-01 48](#) **QL** Limit on total catch of certain other commercial tuna fisheries (that take >2000Mt of BET, YFT and SKJ) was omitted from the list of obligations for review in 2025, because agreed audit points are pending.

- [CMM 2023-01 24](#) **QL** Purse seine EEZ limits (for skipjack, yellowfin and bigeye tuna) and advice from other coastal CCMs of EEZ limits to be applied.
- [CMM 2023-01 25](#) **QL** High seas purse seine effort limits applying 20N to 20S.
- **\*\***[CMM 2023-01 38](#) **QL** Bigeye longline annual catch limits for 2024-2026, with adjustment to be made for any overage and certain CCMs may also increase the catch limit by committing to proportionate increase in observer coverage level above the minimum 5% ROP coverage level. **\*\***
- [CMM 2023-01 41](#) **QL** Bigeye longline catch limits by flag for certain other members which caught less than 2000t in 2004.
- [CMM 2023-01 43](#) **QL** Limit by flag on number of purse seine vessels >24m with freezing capacity between 20N and 20S.
- [CMM 2023-01 44](#) **QL** CCM reported whether it replaced any of its flagged large scale purse seine vessels in the previous year and has advised the Commission that the replacement vessel did not result in an increase in carrying capacity or an increase in catch or effort levels.
- [CMM 2023-01 45](#) **QL** Limit by flag on number of longline vessels with freezing capacity targeting bigeye above the current level (applying domestic quotas are exempt).
- [CMM 2023-01 46](#) **QL** Limit by flag on number of ice-chilled longline vessels targeting bigeye and landing exclusively fresh fish above the current level or above the number of current licenses under established limited entry programmes (applying domestic quotas are exempt).
- [CMM 2023-02 02](#) **QL** Total effort by vessels for Pacific Bluefin limited to 2002 - 2004 levels in Area north of 20N.
- [CMM 2023-02 03](#) **QL** Pacific bluefin tuna catch limits for Japan, Korea and Chinese Taipei applying from 2022.
- [CMM 2023-02 04](#) **QL** Pacific Bluefin 30kg or larger catch limits, by flag for certain other members.
- **\*\***[CMM 2023-03 02](#) **QL** CCMs take measures to ensure fishing effort by fisheries taking more than 200mt of NP SWO N20N per year is limited to 2008 – 2010. **\*\***

#### 6 Obligations recommended for annual review

- [CMM 2014-02 9a](#) **IM** Fishing vessels comply with the Commission standards for WCPFC VMS including being fitted with ALC/MTU that meet Commission requirements;
- [SciData 01](#) **RP** Estimates of Annual Catches
- [SciData 02](#) **RP** Number of vessels active
- [SciData 03](#) **RP** Operational Level Catch and Effort Data
- [SciData 05](#) **RP** Size composition data
- [CMM 2018-05 Annex C 06](#) **RP** CCMs shall achieve 5% coverage of the effort in each fishery under the jurisdiction of the Commission
- [CMM 2018-06 09](#) **RP** Submission by Member to ED a list of all vessels on national record in previous year, noting FISHED or DID NOT FISH for each vessel

## 18 Additional Implementation Obligations where TCC is yet to review Implementation using agreed Audit Points

Note that other IM obligations have been reviewed or are otherwise covered by the trial streamlining approach for IM obligations.

### Operational requirements for fishing vessels

- [CMM 2006-08 07](#) **IM** Fishing vessels to accept HSBI boardings by duly authorised inspectors, and as applicable Members to ensure compliance of its authorised inspectors with the HSBI procedures.
- [CMM 2014-02 9a](#) **VMS SSPs 5.4 - 5.5** **IM** VMS Manual Reporting procedures.
- [CMM 2018-06 04](#) **IM** Vessels authorization requirement.
- [CMM 2023-01 32](#) **IM** Purse seine vessels are not to operate under manual reporting during FAD closure period.

### Additional measures for tropical tunas

- [CMM 2009-02 03-07](#) **IM** FAD Closure Rules - high seas.
- [CMM 2009-02 08-13](#) **IM** Rules for Purse seine catch retention, including reporting - high seas.
- **\*\***[CMM 2023-01 13](#) **IM** Purse seine 1 1/2 month FAD closure (1 July - 15 August). **\*\***
- **\*\***[CMM 2023-01 14](#) **IM** Annual advice on choice and implementation of one additional month high seas purse seine FAD closure (April, May, Nov or Dec). **\*\***
- [CMM 2023-01 16](#) **IM** Required FAD design and construction specification requirements to reduce the risk of entanglement of sharks, sea turtles or other species (effective 1 Jan 2024).
- [CMM 2023-01 21](#) **IM** Each purse seine vessel is limited to no more than 350 FADs with activated instrumented buoys.
- [CMM 2023-01 26](#) **IM** CCMs not to transfer fishing effort in days fished in the purse seine fishery to areas N20N and S20S.
- [CMM 2023-01 30](#) **IM** Purse seine catch retention requirements (20N - 20S).
- [CMM 2023-01 Att 2 04](#) **IM** Philippines to ensure its flagged vessels report sightings of any fishing vessel to the Commission Secretariat (vessel type, date, time, position, markings, heading and speed).
- [CMM 2023-01 Att 2 08](#) **IM** Philippines to monitor landings by vessels operating in HSP1-SMA and collect reliable catch data by species.

### Observer activity related requirement

- [CMM 2009-06 13](#) **IM** CCM shall ensure that vessels they are responsible for carry observers from the WCPFC ROP to observe transshipments at sea.
- [CMM 2023-01 33](#) **RP** Requirement for purse seine vessels to carry a ROP observer.
- [CMM 2023-01 34](#) **IM** 100% purse seine coverage: specific rules for vessels fishing exclusively in areas under its national jurisdiction.

## Mitigating impacts of fishing on species of special interest

- [CMM 2022-04 16](#) **IM** Requirements to minimize bycatch of sharks in longline fisheries between 20N and 20S (effective 1 Jan 2024).

### 5 Daily catch and effort reporting obligations

- **\*\***[CMM 2022-06 01](#) **IM** Requirement to ensure the master of each vessel completes an accurate electronic log of every day that it spends at sea on the high seas of the Convention Area as specified (effective for most vessels as of 1 Jan 2024). **\*\***
- **\*\***[CMM 2022-06 02](#) **IM** Requirement that information recorded by the master of each vessel each day with fishing operations shall, at a minimum include the information as specified. **\*\***
- **\*\***[CMM 2022-06 03](#) **IM** Requirement that the master of each vessel fishing in the Convention Area provides an required information to its national authority within 15 days of the end of a trip or transshipment event. **\*\***
- **\*\***[CMM 2022-06 04](#) **RP** Requirement to provide operational catch and effort data recorded by the master of each vessel each day with fishing operations to the Commission, and where possible in accordance with the agreed SSPs. **\*\***
- **\*\***[CMM 2022-06 05](#) **IM** Requirement that the master of each vessel fishing in the Convention Area provides an accurate and unaltered original or copy of the required information pertaining to the current trip on board the vessel at all times during the course of a trip. **\*\***

### Additional obligation added as decided by the Commission WCPFC21

- [CMM 2022-04 07-10](#) **IM** Take measures necessary to require all sharks retained on board their vessels are fully utilized and ensure the prohibition of finning (provide in Part 2 Annual Report) - includes consideration of para 10 request from CCM

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## WCPFC Climate Change Workplan 2024 - 2027

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### **Objective**

Using the WCPFC Convention and Resolution 2019-01 as guides, in response to the WCPFC20 Outcomes, and upon review and input from each subsidiary body (SB), this Workplan will inform the Commission's efforts to address climate change impacts on WCPFC fisheries in the Convention Area.

The following sections describe tasks to be taken by the Commission and its SBs to address climate change impacts on WCPFC fisheries in the Convention Area.

A schedule of ongoing and planned activities related to climate change work within the Commission and the Subsidiary Bodies is included.

### **Commission**

- Consider and discuss appropriate ways to incorporate climate change into the work of the Commission and the SBs.
- Consider the information derived from the CMM Climate Change Vulnerability Assessment.
- Identify and discuss appropriate avenues for incorporating climate change resources available outside the Commission into the work of the Commission in support of executing the work of the Commission.
- Enhance cross-RFMO coordination for climate change discussions, especially with IATTC.

### **Northern Committee**

- Coordinate with ISC as it considers how to incorporate climate change advice into management recommendations to NC
- Consideration of climate change impacts on predator-prey interaction, and ultimately on NC tuna stocks. This would include integration of this information to provide advice to NC and Commission, and engagement with other Pacific Fisheries Bodies

### **Scientific Committee**

- Continue the ongoing work with respect to implementing an ecosystem approach to fisheries management (EAFM), including developing the ecosystem indicator report cards; climate and ecosystem modelling; enhancing information on essential habitats for

WCPFC target and bycatch species, and on the potential changes to species interactions and spatial overlap in target and bycatch species

- Continue the ongoing work in the SC to agree to climate indicators to track the impact of climate change and ecosystem changes, and develop a process to provide advice to the Commission on the performance of those indicators and the impact of climate change on WCPFC target stocks, non-target species and other scientific aspects, and continue to update and discuss the Ecosystem and Climate Indicator Report Card annually;
- Continue exploring ways to enhance data collection systems on environmental and climate information to inform the modelling;
- Consider how the SC structure might be updated to facilitate climate change work while still maintaining other core SC functions, and report on these deliberations and any conclusions to the Commission;
- SC to include as part of the standing agenda on climate change a review of available data to inform the Commission on climate change impacts to stocks and ecosystems in the WCPO, and the potential effects of climate change on related fishing activities, including incorporating climate considerations in the development of harvest strategies and management procedures. The annual review of available data should also provide advice and recommendations to the Commission which identifies information gaps, necessary analyses, and any additional tasks that may further enhance the Commission's ability to account for climate change impacts on WCPFC fisheries;
- Coordinate with SPC, ISC and IATTC in continued consideration of how to incorporate climate change advice into stock assessments and associated management recommendations;
- Consider outcomes from the CMM climate vulnerability assessment and discuss appropriate ways to incorporate scientific advice that may assist in future development of CMMs based on the outcomes of the assessment.

#### **Technical and Compliance Committee**

- Consider the outcomes and technical information from the CMM vulnerability assessment, and continue to discuss appropriate ways to incorporate climate change into the work of the TCC.
- TCC to annually review climate change information to provide the Commission with information, technical advice and recommendations relating to the implementation of, and compliance with, conservation and management measures
- TCC's annual review of available information to also provide recommendations to the Commission identifying information gaps, necessary analyses, and any additional tasks to ensure the Commission's conservation and management measures contribute to the long-term sustainability of the stocks in accordance with Article 10 of the Convention.

#### **Finance and Administration Committee**

- Consider and prioritize any Commission or Secretariat requests for supplementary funds or other resources needed to carry out expanded scientific work or technical assessments associated with climate change.

### **Science and Management Dialogues and other WCPFC Intersessional Fora**

- Addressing climate change is an underlying question for all WCPFC fora, including the 2024 SMD. Include discussions on the incorporation of climate considerations in the development of management procedures for skipjack and South Pacific albacore.

The tasks defined in this Workplan will be adaptive and flexible to respond to the discussions and needs of the Commission and its Subsidiary Bodies.

**Schedule of Activities included in the Workplan**

Rows in blue are new activities that will require agreement on timeline. In the final column, where no funds are listed, an activity does not need funds to take place.

<u>Schedule</u>	<u>Activity</u>	<u>Project/link to SB workplan</u>	<u>Expected outcome</u>	<u>Overall link to advice to Commission (link to policy)</u>	<u>Responsible/ Funds assigned-available?</u>
2024	Climate change expert workshop	WCPFC Project 121: Ecosystem and Climate Indicators (ECI) + Report cards	Test the candidate ECI, progress and refine these, based on expert feedback	Providing key information for monitoring the pathway through which climate change is manifesting in the WCPO, enabling the ground-truthing of oceanographic models, monitoring which physical properties of the Western and Central Pacific Ocean (WCPO) are approaching climate change induced tipping points, and supporting the inputs to and monitoring of implemented harvest strategies.	SSP Funds available under project 121
2025-2027	Indicator Validation				SC Further funds are required



Annually	Ecosystem and Climate Indicator Report Card to be updated and presented annually to the Commission and its subsidiary bodies. (WCPFC20 request)				SSP
2024-25	Review of existing modelling and data to improve understanding of drivers of trends in the early life history of skipjack tuna in the Western Pacific Warm Pool	WCPFC Project 115: Exploring evidence and mechanisms for a long-term increasing trend in recruitment of skipjack tuna in the equatorial Pacific and the development and modelling of defensible effort creep scenarios <a href="#">Tuna Research Plan</a>	Environmental or technological impact on estimated SKJ recruitment trends, to improve the robustness of future stock assessments and inform skipjack OMs	The analysis of CPUE indices in skipjack stock assessments is vital for informing effective fisheries management policies, as misleading stability in these indices—potentially due to effort creep—could mask declines in stock biomass, leading to unsustainable fishing practices.	SSP

2024-25	Calibrating and evaluating the precision of epigenetic ageing as a tool for rapid and cost-effective ageing of WCPO key tuna stocks	WCPFC Project 100c: Preparing western and central Pacific tuna fisheries for application of close-kin-mark-recapture (CKMR) methods to resolve key stock assessment uncertainties	Provide an improved understanding of connectivity and adaptive potential and variation, which is increasingly important for understanding how stock biomass will respond to climate change and other changes to environmental conditions.	Accurately estimating absolute spawning biomass is a key challenge in WCPFC stock assessments. Close-Kin Mark-Recapture (CKMR) offers a practical solution, providing not only biomass estimates but also insights into population structure, connectivity, and natural mortality to improve management decisions	SSP Funded under the project
Annually	Identifying sampling gaps in biological data (age & growth) stored within the Tuna Tissue Bank and developing a biological sampling plan to collect age and growth information for key WCPFC tuna species	WCPFC Project 117: WCPFC Tuna Biological Sampling Plan	A structured sampling program is expected to directly translate into stock assessments with more reliable estimates of growth and with sufficient temporal observations to identify how growth may be changing as a function of climate change.	A well-designed and comprehensive sampling plan for collecting biological data (e.g., age, growth) will significantly enhance the accuracy of stock assessments, providing a stronger foundation for informed management decisions.	SSP Funded under the project

	<p>Identifying sampling gaps in biological data (age &amp; growth) stored within the Tuna Tissue Bank and developing a biological sampling plan to collect age and growth information for billfish species</p>	<p>WCPFC Project 118: WCPFC billfish biological sampling plan.  <a href="#">Billfish Research Plan</a></p>	<p>A structured sampling program is expected to directly translate into stock assessments with more reliable estimates of growth and with sufficient temporal observations to identify how growth may be changing as a function of climate change.</p>	<p>A well-designed and comprehensive sampling plan for collecting biological data (e.g., age, growth) will significantly enhance the accuracy of stock assessments, providing a stronger foundation for informed management decisions.</p>	<p>SSP  Funded under the project</p>
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2024-26	Quality checking and resolving issues including collection of samples for estimation of spawning potential through histological analyses of tropical tunas	WCPFC Project 120: Updated reproductive biology of tropical tunas	Establish baselines of reproductive potential for tropical tunas in the WCPO for monitoring the impacts of climate change	Improving the estimation of spawning potential is essential for enhancing the accuracy of stock assessments, which directly informs policy decisions on sustainable harvest strategies and conservation measures. Without reliable data, management policies may be less effective in ensuring the long-term sustainability of tropical tuna stocks, especially in the face of climate change impact	SSP Funded under the project
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2025-26	Exploring new tuna stock assessment software	WCPFC Project 123: Scoping the next generation of tuna stock assessment software	Establish a new WCPFC tuna stock assessment software as a successor to the MULTIFAN-CL	Establishing new software for WCPO tuna stock assessments is essential for informing effective management decisions and policies. Enhanced modelling capabilities of the new software can assist in providing options for sustainable harvest strategies and adaptive management practices, particularly in the face of climate change impacts on the tuna population.	SSP Funds are required
2024-27	Continued enhancements to the SEAPODYM	SEAPODYM (Spatial Ecosystem and Population Dynamics Model)	climate-informed stock assessments	SEAPODYM is integrating biological, ecological, and environmental data to help inform policy decisions by projecting the effects of climate change on tuna distribution and abundance, enabling fisheries managers to have information to support adaptive strategies to ensure the long-term viability of tuna resources in WCPO.	SSP
2024-[27]	Collation and curation of regional	Project 35b: WCPFC Pacific	Time series of biological samples to underpin	Improved estimation of biological parameters is essential for enhancing the accuracy of stock assessments,	SSP

	marine specimens, including genetic samples.	Marine Specimen Bank	improvements to inputs to stock assessments and monitoring of climate impacts	which directly informs policy decisions on sustainable harvest strategies and conservation measures. Ongoing collection of reliable data allows monitoring of potential climate impacts and informed advice.	Funded under the project, a 2% annual increase is requested
Annually	Tagging and monitoring of tuna and tuna-like species, collection of marine specimens, including genetic samples.	Project 42: Pacific tuna tagging programme	Time series of biological samples to underpin improvements to inputs to stock assessments and monitoring of climate impacts	Improved estimation of biological parameters is essential for enhancing the accuracy of stock assessments, which directly informs policy decisions on sustainable harvest strategies and conservation measures. Ongoing collection of reliable data allows monitoring of potential climate impacts and informed advice.	SSP Funded under the project
Annually	Updates on international and regional fishery bodies developments related to climate change (paragraph 20 WCPFC20 Outcome document)			The Commission will get regular updates on other international and regional fisheries bodies activities and relevant news and information regarding climate change that is valuable for WCPFC to engage with.	WCPFC Secretariat

TBD	Explore mechanisms to test the robustness of existing and candidate management procedures under plausible climate change scenarios within the MSE framework.	Harvest Strategy Workplan		Activity to be discussed and refined by SC.  TCC to discuss how to provide advice to the Commission regarding MSE and climate change.	TBD
[202#]	Engagement with other Regional Fisheries Management Organizations and the Food and Agriculture Organization and their members to discuss shared challenges, leverage	2019-01 WCPFC Resolution on Climate Change	Create a community of practice within the RFB/RFMOs regarding cooperative fisheries management and climate change.	Will inform this workplan, and allow for updates as appropriate.	Commission, Secretariat, SSP, and Members

	available resources, and identify potential pathways for cooperation on addressing climate change effects on fisheries				
[2025 - 202#]	CMM Climate Change Vulnerability Assessment		[Identify information GAPS and analysis that need to be further undertaken to understand the implications of climate change on certain CMM provisions. ]	Will provide information for Members consideration on vulnerability to climate change on specific CMM provisions	Consultant with support of Secretariat  Funds available through voluntary contributions





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## Terms of Reference for a CMM Climate Change Vulnerability Assessment

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### Background

1. In 2024, WCPFC20 affirmed [Resolution 2019-01 on Climate Change as it Relates to the Western and Central Pacific Fisheries Commission](#) (WCPFC) by agreeing to develop a workplan (**Workplan**) and support an assessment (**Assessment**) of the susceptibility of WCPFC Conservation and Management Measures to the impacts of climate change ([WCPFC20 Outcomes](#)):

*23. The Commission requested the Secretariat with the SSP explore the scope and feasibility of undertaking an assessment of active CMMs and to determine specific CMM provisions that may be susceptible to be impacted by climate change, and present the findings to the Science Committee, the Technical and Compliance Committee and the Commission.*

*24a. The Commission recommended co-leads are identified to develop a Commission workplan for addressing climate change on WCPFC fisheries in the Convention Area. The co-leads would use the WCPFC Convention and Resolution 2019-01 as guides for that work. The draft workplan would be discussed and considered by each subsidiary body in 2024, with a view to taking this to WCPFC21 for consideration. The workplan will include, but not be limited to; the scoping and feasibility study of an assessment of CMMs and their susceptibility to be affected by climate change...*

2. These terms of reference (TOR) define the Scope, Objectives, Rationale, Methodology, Timing, and Resources of the Assessment.

3. In consultation with the Workplan Co-Chairs from the Republic of the Marshall Islands and the United States (**co-leads**), the WCPFC Secretariat and Scientific Services Provider (SSP) have reviewed the scope and feasibility of an Assessment (WCPFC21-2024-12) as proposed at WCPFC20 ([WCPFC20-2023-DP08 Rev02](#)) and presented the findings to the Northern Committee, Scientific Committee, the Technical and Compliance Committee, and the Commission.

4. Following feedback from subsidiary bodies, the co-leads suggest this effort be henceforth referred to as a “CMM Climate Change Vulnerability Assessment.”

### Scope

5. The scope of the Assessment:

- a. is limited to informing (*i.e.* not advising) the Commission and its subsidiary bodies as to whether specific provisions of conservation and management measures (CMMs) might be affected by climate change;

- b. does not prejudice or have any effect on members' implementation of obligations arising from specific conservation and management provisions;
- c. is not intended to initiate, or result in, renegotiation of CMMs; and
- d. will be limited to publicly available information such as adopted CMMs, published climate advice of the SSP, the ISC, and Scientific Committee, peer reviewed scientific literature, and Indigenous and traditional knowledge, including species climate vulnerability assessments and research on geographic shifts of species distributions.

### **Objectives**

6. The Assessment will:

**Review active WCPFC CMMs defined by the Commission and identify the specific provisions that could benefit from additional discussion among CCMs, as being vulnerable to climate change.**

7. The Assessment is not intended to preclude any future consideration, evaluation, or prioritization of any CMM.

8. The Assessment will:

- a. Support discussions within the Technical and Compliance Committee, on undertaking one of its core functions: to provide the Commission with information, technical advice and recommendations relating to the implementation of, and compliance with, conservation and management measures (Convention Article 14.1(a), by identifying monitoring, control, and surveillance (MCS) data and information gaps and potential management challenges; and
- b. Support discussions within the Scientific Committee regarding scientific data and information gaps and research needs to improve understanding of impacts of climate change on assessed CMM provisions.

9. The Assessment will focus on improving the Commission's understanding of how climate change impacts might affect existing CMM provisions, and does not intend to derive in discussions on how those changes may affect the subsidiary bodies' ability to assess compliance with them.

### **Rationale**

10. With the continued dynamic changes of marine environments due to climate change and the potential vulnerability to climate change of species, ecosystems, and CMMs, the Commission has identified a need for work that aims to ensure that relevant information and data collection are adequate to support improved and updated understanding by the Commission on the impacts of climate change and implications for the management of WCPFC fisheries.

11. The value of this Assessment will be in identifying the MCS and scientific data and information gaps, research needs, and potential management challenges to improve CCM's understanding of the vulnerability to climate change of certain CMM provisions, and which CMMs might benefit from further discussion (*e.g.*, in area of application, species of focus, or mechanism of implementation), to ensure continued sustainable management of WCPFC fisheries into the future.

## **Methodology**

12. The Assessment will:
    - a. compile available advice from the SSP, the ISC, and the Scientific Committee, peer-reviewed scientific literature, and Indigenous and traditional knowledge (following collective benefit, authority to control, responsibility, and ethics principles; known as the CARE principles), including but not limited to, species climate vulnerability assessments and research on geographic shifts of species distributions and other climate impacts on fisheries managed by the Commission,
    - b.
    - c. review and analyze CMM provisions available via the WCPFC website in the context of 12(a); and
    - d.
    - e. provide to WCPFC and its subsidiary bodies a list of active CMM provisions with an explanation of any identified potential climate vulnerabilities associated with specific provisions.
  
  13. The vulnerability of CMMs to climate change has not been explored or discussed by the Commission. As a first step towards focusing the work of CCMs, this Assessment will provide a definition of “vulnerability” to be used for the Assessment.
  
  14. The Consultant will use available science and existing resources (as specified in paragraph 12 (a), and consistent with the outcomes of paragraph 13) to select a definition for “vulnerability” to be used for the Assessment. The definition will be included in initial Assessment outcomes for consideration by CCMs.
  
  15. In assessing the “vulnerability”, the Assessment will consider, but not be limited to, whether provisions of WCPFC CMMs are implemented based on:
    - a. certain target or bycatch species,
    - b. specific geographic areas,
    - c. different gear types,
    - d. review period, or
    - e. any mention of climate.
  
  16. The deliverables of the consultancy will be (a) a WCPFC-relevant framework for assessing CMM provisions’ vulnerability to climate change using the best available information per paragraph 12(a), including a definition for “vulnerability” to be used for the Assessment as described in paragraphs 13 and 14, (b) a list of the specific CMM provisions identified as being vulnerable to climate change that could benefit from additional discussion among CCMs, (c) the identification of MCS and scientific data and information gaps, research needs, and potential management challenges, including in instances where more information would improve the Assessment, and (d) after assessing CMM provisions, the Consultant will also suggest minimum/sufficient information required to be able to categorize CMM provisions as either being “vulnerable” or “not vulnerable” to climate change, as appropriate.
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## **Timeline**

17. The proposed timing for the Assessment to support CCMs in discussions at the Commission and its subsidiary bodies' meetings is as follows:

<b>Timing</b>	<b>Description</b>
January 2025	Initiate the Consultancy and Assessment of the initial subset of CMMs.
February 2025	Initial compiled list of available information sources (paragraph 12a) in a bibliography and targeted literature review.
March 2025	A WCPFC-relevant framework for assessing CMM provisions' vulnerability to climate change using the best available information, per paragraph 12(a), including a definition for "vulnerability" to be used for the Assessment.
April 2025 - June 2025	<p>A list of the specific CMM provisions identified as being vulnerable to climate change that could benefit from additional discussion among CCMs.</p> <p>The identification of MCS and scientific data and information gaps, research needs, and potential management challenges, including in instances where more information would improve the Assessment.</p> <p>Suggested metrics of minimum/sufficient information required to be able to categorize CMM provisions as either being "vulnerable" or "not vulnerable" to climate change, as appropriate.</p>
June - September 2025	Results from the Assessment of at minimum the CMMs defined by the Commission provided as information papers to support CCMs during discussions at NC21, SC21, TCC21 and WCPFC22.
2026	Iterate the Assessment to apply to additional CMMs as directed by the Commission.

## **Resources**

18. The Assessment will be completed by a consultant hired by the Secretariat and completed with a narrow scope as described above. Funding is available to provide compensation for this work through the use of voluntary contributions already made to WCPFC.

19. The Assessment will be overseen by the WCPFC Secretariat in consultation with the SSP and ISC, and the outcomes will be provided for CCMs' consideration during Commission and subsidiary body meetings.



**COMMISSION**

**Twenty-First Regular Session**

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**WCPFC Skipjack tuna monitoring strategy report**

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## **I. Executive Summary**

The monitoring strategy routinely evaluates the performance of the management procedure (MP) to check that it is working as expected. The monitoring strategy should consider all aspects of the harvest strategy including procedures for evaluating and testing MPs; the identification of any scenarios that should be added to the OM grid; the preparation and application of the EM and the performance of the management procedure as a whole. In addition, it may identify changes in the dynamics of the fishery resulting from environmental, economic or social factors that may require a reconsideration for the management objectives and the testing of alternative MPs.

This paper updates the skipjack MP monitoring strategy to reflect Commission discussions and observations at WCPFC20 and subsequent considerations of WCPFC-SC20, WCPFC-SMD02 and WCPFC-TCC20.

SC20 noted the following outcomes with respect to the skipjack monitoring strategy:

- SC20 requested that the SSP conduct the following analyses related to the monitoring strategy for skipjack:
  - Evaluate whether changes in the FAD closure duration (as adopted in CMM 2023-01) will affect the performance of the interim MP;
  - Representativeness and appropriateness of candidate CPUEs for the use in MP.
- SC20 recommended that in years when an assessment is not conducted, the monitoring strategy could be reviewed by SC and feedback provided through the Online Discussion Forum.
- SC20 was invited to review the information provided in the Monitoring Strategy included in Table 1 of SC20-MI-WP-02, and to update the text in column 1 (SC) as appropriate. SC20 recommended the following modifications to Table 1: Monitoring strategy for the skipjack Management Procedure:
  - Amend sub-paragraph a) of Element 1.a) (comparison of predicted MP performance against the latest stock assessment outcomes) to read “The performance of the MP in managing skipjack tuna to achieve defined objectives, including the TRP”.
  - Amend element 1.b) (Data availability to run the MP) to include a new comment for SC20: “The effect of changes made to the historical data is not known”.

- SC20 recommended the monitoring strategy be forwarded to the SMD, TCC and the Commission for their consideration.

SMD02 noted the following outcomes from its discussion of the skipjack monitoring strategy:

- SMD02 thanked the SSP for the updated skipjack monitoring strategy (**WCPFC-SMD02-2024-BP-06**), which, amongst other things, provided clear guidance on what technical advice TCC can provide to the Commission. SMD02 supported the approach of not making adjustments to the key elements of the management procedure on an annual basis, but that modelling be undertaken as part of the next review of the management procedures in 2026, including for scenarios related to climate change.
- SMD02 recommended that as part of the next regular review of the skipjack management procedure, the Commission directly incorporate SEAPODYM and/or other model projections into the skipjack management strategy evaluation operating model grid projections.

TCC20 noted the following outcomes from its discussion of the development of a monitoring strategy for Skipjack tuna.

- TCC20 recommended to the Commission that it adopt the skipjack MP monitoring strategy (TCC20-2024-17 rev1) noting the updates and input provided by TCC20.
- TCC20 noted that, as the Commission adopts more management procedures, there could be a need for a standing item on the TCC agenda to consider management procedures.

## Introduction

The interim management procedure (MP) for WCPO skipjack was formally adopted at WCPFC19 (CMM2022-01) and was implemented for the first time at WCPFC20 (through CMM2023-01). The overall objectives of the MP are to maintain the stock around the target reference point (TRP) and to minimise the extent of changes in catch and effort between management periods. Now that the skipjack MP has been adopted and implemented, it should be routinely monitored to check that it is performing as expected and is achieving the desired outcomes. This is a key role of the monitoring strategy.

In addition to monitoring the performance of the adopted MP, the monitoring strategy should consider all aspects of the harvest strategy, including the underlying management objectives (TRP); procedures for designing and evaluating candidate MPs; and the scenarios against which they are tested (the OM grid). The purpose of the monitoring strategy is not to conduct these analyses but, rather, to identify instances where conditions may have changed from those assumed when testing and evaluating the MP, and to highlight areas where modifications to the existing MP may be necessary or where further work may be required. The monitoring report is intended to be routinely considered and updated by the relevant bodies of the Commission (specifically SC and TCC), allowing incremental development as new information becomes available.

An outline of the elements of a monitoring strategy for the WCPO skipjack tuna interim MP was provided in Table 2 of Annex III of CMM 2022-01. The content, structure and development of a monitoring report has been further discussed in recent papers to both the SC (WCPFC-SC19/MI-WP-02) and to the Commission (WCPFC20-2023-WP14-Rev1). WCPFC20 noted that there was a need for intersessional work, led by the SC and TCC Chairs, to facilitate the development by the SSP of a monitoring strategy for adoption at WCPFC21 (WCPFC20 summary report, paragraph 313). Under the harvest strategy workplan (WCPFC20 Summary report, attachment 4) the Commission is scheduled to adopt the monitoring strategy for WCPO skipjack in 2024.

This paper builds on the information provided in attachment B of WCPFC20-2023-WP14 to provide additional detail to support discussions and advice on the respective roles of SC, TCC and the Commission in developing and implementing a monitoring strategy for skipjack tuna.

## Issues arising

The experience of implementing the skipjack MP for the first time has highlighted a number of issues that were not foreseen during its development and testing. These relate specifically to the monitoring of catch and effort in the fishery to both ensure and demonstrate compliance with the MP, as well as some practical issues encountered when running the MP and implementing the catch and effort limits output from it.

### Catch and effort reporting

An omission from the initial proposal for information to be reported under the monitoring strategy (CMM 2022-01, annex III) is the provision of catch and effort data to monitor compliance with the MP. This represents an important component of the monitoring strategy not only because it provides the confirmation and reassurance that the MP has been implemented as intended, but also so that, in instances where the measures of the MP have not been followed, the reasons for non-compliance can be investigated and appropriate action taken.

To this end, a tasking for TCC has been added to item 1.a. of Table 1, requesting that, as and when such data become available, TCC provides advice on the levels of catch and effort of fisheries subject to the MP in relation to the limits set by the MP. Note that the MP applies to the catch and effort of purse seine and pole and line fisheries, and other commercial fisheries referred to in paragraph 47 of CMM 2023-01 taking more than 2,000 tonnes of tropical tunas (bigeye, yellowfin and skipjack) in the Exclusive Economic Zones and high seas.

TCC20 noted that the regularly provided summaries of tropical tuna fisheries catch and effort only partially covers the information required to monitor implementation of the skipjack MP. Future data submissions will need to provide TCC with sufficient information to monitor annual fishing levels of fisheries subject to the MP relative to the MP output. Specifically, effort data for pole and line fisheries and skipjack catch data for the relevant fisheries within Region 5 of the 2022 assessment model will be required. This information will need to be provided both for the time-period under consideration of the monitoring strategy and for the baseline year ranges (2016-18 ID-PH fisheries; 2001-04 JP pole and line fisheries).

#### Update of the estimation method

The skipjack MP was implemented in 2024, with the resulting catch and effort limits being applied for the period 2024 to 2026. Although the MP ran successfully, it was noted that the contraction of pole and line fishing in key regions of the skipjack fishery had impaired the ability to index relative abundance of WCPO skipjack across the equatorial region. Diagnostic analyses indicated that sustained low levels of effort of these fisheries is likely to affect the future performance of the MP. SC19 recommended that further work be undertaken to develop and test an alternative estimation model for future use in the WCPO skipjack tuna MP. WCPFC20 noted that ‘a re-evaluation of the skipjack estimation method needs to be undertaken prior to the next implementation of the Management Procedure’ (WCPFC20 summary report, paragraph 302).

Work to revise the estimation method and re-test the skipjack MP has been delayed and results were not available for presentation to SC20. Options for the revision of the skipjack estimation method are under consideration (WCPFC-SC20/MI-WP-01). The development and testing of these alternative approaches will be a priority work area to allow a re-evaluation of the skipjack estimation method prior to the next implementation of the MP in 2026.

#### Alignment with TT-CMM

At the first implementation of the WCPO skipjack MP it became apparent that there was a disconnect between the assumptions of the MP and the underlying basis of the TT-CMM (CMM 2023-01), through which the MP is implemented. Resolving this mis-match could entail either , revising the MP so that it more closely aligns with the TT-CMM, which would entail changes to the MP design additional to those described above for the revision of the estimation method, or alternatively revising the limits of the TT-CMM to align more closely with a the skipjack MP. Further discussion by managers is required to provide guidance on which approach should be taken prior to work being undertaken on this issue.

In addition, recent changes to the timing and extent of the FAD closure means that future conditions of the fishery differ from those initially assumed. This may also require additional testing of the MP. Changes or additions to the grid of operating models used to test the MP may be required to account for changes in the FAD closure period.

### **Monitoring performance of the management procedure**

The monitoring strategy (as outlined in Table 1, below) addresses three main aspects of the design, testing and implementation of the MP as well as monitoring its outcomes in relation to defined objectives, with consideration of these aspects divided amongst the various



bodies of the Commission as appropriate. Table 1 outlines the issues to be considered and what advice is required. Where these issues have previously been considered the resulting recommendations are also provided.

**Table 1:** Monitoring strategy for the skipjack Management Procedure (CMM 2022-01).

1. Review of MP performance		
a. Comparison of predicted MP performance against latest stock assessment outcomes		
SC	TCC	Commission
<p>Regularly review/check the performance and outputs of the MP, including the indicators set out in Annex III of CMM 2022-01 and provide advice to the Commission on:</p> <p>a) The performance of the MP in managing skipjack tuna to achieve defined objectives including the TRP. This includes the robustness of the MP to changes in the fishery and any exceptional circumstances consistent with Annex IV of CMM 2022-01.</p> <p>b) The application of the MP outputs to CMM 2023-01.</p> <p>SC19: With the first implementation of the MP in 2024, the stock assessment in 2025 will be the first in which the impact of the MP on stock status will be experienced. Only one year of MP implementation will be included in that assessment and it will therefore provide only a preliminary measure of performance.</p> <p>The MSE predicted outcomes of the adopted MP and the 2022 stock assessment show good correspondence with assessed status for the most recent years but some departure for the historical period.</p> <p>SC20: No new information</p>	<p>Regularly review/check the performance and outputs of the MP, including the indicators set out in Table 3, Annex III of CMM 2022-01 and provide advice to the Commission on:</p> <p>a. Catch and effort levels for all fisheries subject to the MP relative to maximum levels specified under the most recent output of the MP.</p> <p>b. Identify quality of information and gaps in available data that would affect ability to monitor the implementation of the MP relative to the MP outputs.</p> <p>TCC20: Additional information on relevant catch and effort for the fisheries subject to the MPs will be needed by TCC.</p>	<p>WCPFC20: Noted the successful running of the MP as outlined in SC19-MI-WP-01</p>

b. Data availability to run the MP		
SC	TCC	Commission
<p>Check availability, quantity and quality of data necessary to run the MP (e.g. the estimation method)</p> <p>SC19: Sufficient data were available to run the MP. However, declining effort in the pole and line fishery in some regions (e.g. tropical region) and consequent reduction of informative CPUE data represents a risk to the future performance of the MP. A re-evaluation of the estimation method may need to be undertaken prior to the next implementation of the MP.</p> <p><b>High priority</b></p> <p>SC20: The effect of changes made to the historical data is not known.</p>	<p>Check availability, quantity and quality of data necessary to run the MP (e.g. the estimation method)</p> <p>TCC20: No new information</p>	<p>WCPFC20: Noted that a re-evaluation of the estimation method may need to be undertaken prior to the next implementation of the MP.</p>
c. Other sources of data to monitor performance		
SC	TCC	Commission
<p>Identify any other data, as available, that might not be included in the MSE framework, that can inform on performance indicators (economic, social, ecosystem, etc.)</p> <p>SC19: No new information noted at SC19.</p> <p>SC20: No other sources of data have been identified.</p>	<p>Identify any other data, as available, that might not be included in the MSE framework, that can inform on performance indicators (economic, social, ecosystem, etc.)</p> <p>TCC20: No new information</p>	
d. Performance of the estimation method (EM)		
SC	TCC	Commission
<p>Confirm the EM is performing well and not subject to estimation failure.</p>	<p>No input anticipated.</p>	

SC19: Overall the EM performed well and provided estimates of stock status within the prediction range of the MSE.		
<b>2. Review of the MP design</b>		
a. Management objectives		
SC	TCC	Commission
No input anticipated.	No input anticipated.	Review the TT-CMM, taking account of the outputs of the SKJ MP. Check that overall objectives of the MP remain appropriate. Revise catch and effort limits for 2024-06 as necessary.  WCPFC20: CCM requests for further work to better align the skipjack MP with the TT-CMM.
b. Scope of the management procedure		
SC	TCC	Commission
Confirm the fisheries controlled by the MP, and the method of control, remains appropriate  SC19: No new information at the time of SC19. SC20: No change.	Confirm the fisheries controlled by the MP, and the method of control, remains appropriate  TCC20 No new information	Confirm the fisheries controlled by the MP, and the method of control, remains appropriate
c. Exceptional circumstances		
SC	TCC	Commission
Provide technical advice to identify the occurrence of exceptional circumstances (see CMM 2022-01 Annex IV) and review, modify or replace the MP as appropriate.  SC19: None identified. SC20: None identified.	Provide technical advice to identify exceptional circumstances (see CMM 2022-01 Annex IV) and recommend remedial action where necessary.  TCC20: No new information	Identify the occurrence of exceptional circumstances (see CMM 2022-01 Annex IV) and review, modify or replace the MP as appropriate.

<b>3. Review of MSE</b>		
a. Operating model grid		
SC	TCC	Commission
<p>Ensure the most important sources of uncertainty are included in the OM grid.</p> <p>SC19: OM grid to be extended to include climate change scenarios (robustness set). In particular the effects of warm pool expansion in the WCPO. This requires further analysis of SEAPODYM outputs and may occur over an extended time frame.</p> <p><b>Medium priority</b></p> <p>Further investigation of the OM grid is suggested to investigate the lack of overlap in estimates of stock status for the historical period. These issues will be considered for inclusion when the current MP is reviewed.</p> <p><b>Low priority</b></p> <p>SC20: Impacts of changes to FAD closure period from 2024 should be investigated and where necessary the OM grid modified to better represent fishery dynamics.</p>	No input anticipated.	
b. Calculation of performance indicators		
SC	TCC	Commission
<p>Check that performance indicators adequately represent management objectives</p> <p>SC19: No new information at the time of SC19.</p>	No input anticipated.	
c. Modelling assumptions		
SC	TCC	Commission

Consider the technical details of the simulation and testing framework SC19: While no major issues are identified, any re-evaluation of the skipjack EM (identified under 1.2) may require a re-evaluation of the modelling framework	No input anticipated.	
<b>d. Data availability to support the MSE framework</b>		
SC	TCC	Commission
Identify any improvements in data collection to either enhance the OM framework or reduce uncertainty included in the OM grid.	No input anticipated.	

### Monitoring schedule

Many elements of the monitoring report depend either on the outputs of an updated stock assessment or on the running and implementation of the MP itself. To date, the MP has been implemented just once (in 2024) and the subsequent considerations of SC19 and WCPFC20 are provided above. The next assessment of WCPO skipjack is scheduled for 2025.

Some aspects of the monitoring report can be updated on a more frequent basis, such as annual estimates of catch and effort and corresponding inter-annual variations in catch and effort. In some cases these data may be available in-year, however, due to time lags in the reporting and processing of data, some delay in the reporting of these figures is likely. CMM 2022-01 outlines a repeating 3-year schedule for the implementation and review of the skipjack MP (Table 2).

**Table 2:** Schedule for the implementation and review of the skipjack MP (CMM 2022-01)

Year	Science Services Provider	Scientific Committee	Commission
2023	Run the MP (using data to 2022).  Support the SC and Commission consideration of the MP	Provide advice to the Commission on the MP outputs for the period 2024-2026	Review the Tropical Tuna CMM, taking into account the output of the MP.  Revise catch and effort related limits for 2024-2026
2024		Data to monitor performance of the MP not available in first year of implementation.	Apply Tropical Tuna CMM

2025	Perform full stock assessment (with data up to and including 2024).	Review performance of the MP including potential exceptional circumstances and advise Commission.	Apply Tropical Tuna CMM. Review the performance and use of the MP.
2026	Run the MP (using data to 2025).  Support SC and Commission consideration of the MP.	Monitor the performance of the MP using available data to 2025.  Provide advice to Commission on the MP outputs for the next management period (2027-2029).	Review the Tropical Tuna CMM, taking into account the output of the MP.  Revise catch and effort related provisions for 2027-2029
2027		Monitor the performance of the MP using available data to 2026.	Apply Tropical Tuna CMM.
2028	Perform full stock assessment (with data up to and including 2027).	Review performance of the MP including potential exceptional circumstances and advise Commission.	Apply Tropical Tuna CMM. Review the performance and use of the MP.
2029	Run the MP (using data to 2028).  Support SC and Commission consideration of the MP.	Monitor the performance of the MP using available data to 2028.  Provide advice to Commission on the MP outputs for the next management period (2030-2032).	Review the Tropical Tuna CMM, taking into account the output of the MP.  Revise catch and effort related provisions for 2030-2032

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## INDICATIVE WORKPLAN FOR THE ADOPTION OF HARVEST STRATEGIES UNDER CMM 2022-03

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WCPFC21-2024-HS Workplan

### Prepared by Australia

- The first Harvest Strategy Workplan was developed in 2015 in accordance with CMM2014-06 (now superseded by CMM 2022-03). It set out a deliberately ambitious schedule of technical work and Commission decision making for the development of harvest strategies across the four key tuna stocks. The workplan was always intended to be a living document and has been updated annually to reflect actual progress as well as other needs and developments.
- It is acknowledged that delays in the execution of the workplan may occur, noting the complexity of developing harvest strategies for multiple species within the multilateral WCPFC environment as well as the capacity of member CCMs to understand and participate fully in the process. For this reason, all parties are cautioned against an expectation that harvest strategy elements will be completed in specific years. Completion dates have changed in the past and may change in the future.
- This workplan simply schedules decisions noting that it is the Commission’s decision as to their interim nature. It is important to understand the implications of single species management procedures within a multi-species fishery context upon application of any of the management procedures.
- There is a very important need for capacity building to allow CCMs to understand and participate fully in the harvest strategy development process and ultimately to have confidence that an adopted harvest strategy is an agreeable balance of their objectives. This is particularly so as the Commission starts to consider the multispecies nature of the fishery and how management procedures will interact.
- For clarity and consistency, the term “Management Procedure” is used from 2020 onward in this workplan in place of the term “Harvest Control Rule (HCR)”. A Management Procedure is a key part of a Harvest Strategy comprising a more formal specification of data collection, the associated estimation model (e.g. the estimation of stock status through an analytical or empirical method) together with a Harvest Control Rule. Together these clearly define what management actions are to be made in response to changes in the stock or fishery condition.

## 2024 Update

- A broad update of progress on harvest strategies during 2024 is provided in WCPFC21-2024-10.
- The technical progress of the Scientific Services Provider included the development of the operating models and MSE framework for South Pacific albacore following agreement of the 2024 assessment of this stock and candidate management procedures evaluated; updated analyses of the implications of alternative South Pacific albacore and bigeye/yellowfin TRPs; and finalisation of the skipjack monitoring strategy following input from WCPFC20, SC20 and TCC20. The 2<sup>nd</sup> Science Management Dialogue meeting was also supported through presentations and advice, and the work requests arising delivered to WCPFC21. Harvest strategy capacity building workshops were also conducted.
- For South Pacific albacore tuna, adoption of a management procedure has been rescheduled to 2025.
- For bigeye tuna, WCPFC agreed to a set of three candidate target reference points that will be further evaluated through their incorporation into candidate management procedures for bigeye tuna. The plan now reflects a tentative decision to adopt a bigeye tuna TRP together with a management procedure in 2025 with deferral to 2026 if this is not possible. The 2025 scheduling is tentative because the SSP has noted significant workload and capacity constraints in undertaking the technical harvest strategy work required to support the Commission in making the scheduled decisions for all three stocks (South Pacific albacore, skipjack and bigeye). It is recognised that the workplan for 2025 has an inherent prioritisation, with a focus on South Pacific albacore and skipjack, with bigeye progressed as far as possible. Further, it is recognised that there may be limited opportunity for managers to participate in the development of candidate MPs through 2025.
- For yellowfin tuna, the development of operating models for management strategy evaluation has been deferred from 2025 and would now occur in 2026. This change was necessary to manage the workload of the Scientific Services Provider, noting that the year 2025 had become very congested with harvest strategy technical work potentially proceeding on all four species.

Within the tables below, progress in earlier years is in grey. Bold items are the six elements that are referred to in CMM 14-06/22-03 (a. Objectives, b. Reference Points, c. Acceptable Levels of Risk, d. Monitoring, e. Harvest Control Rules/Management Procedure and f. MSE). Items in brackets are related to harvest strategy development and so are part of the plan but are not one of these six elements.



	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2022	<p><b>Develop management procedures (e)</b> and <b>Management strategy evaluation (f)</b></p> <ul style="list-style-type: none"> <li>• SC agree the operating models for MSE.</li> <li>• SC provide advice on performance of candidate management procedures.</li> <li>• SC provides advice on relevant elements of the monitoring strategy.</li> </ul>	<p>Complete review of the Target Reference Point.</p> <p><b>Develop management procedures (e)</b> and <b>Management strategy evaluation (f)</b></p> <ul style="list-style-type: none"> <li>• SC agree the operating models for MSE.</li> <li>• SC provide advice on performance of candidate management procedures.</li> <li>• SC provides advice on relevant elements of the monitoring strategy.</li> <li>• TCC consider the implications of candidate management procedures.</li> </ul>	<p>[Continue development of multispecies framework]</p> <p><b>Develop management procedures (e)</b> and Management strategy evaluation (f)</p> <ul style="list-style-type: none"> <li>• SC provide advice on potential management procedures.</li> </ul> <p>[YFT peer review. Relevant to BET operating models.]</p>	<p>[Continue development of multispecies framework]</p> <p><b>Develop management procedures (e)</b> and Management strategy evaluation (f)</p> <ul style="list-style-type: none"> <li>• SC provide advice on potential management procedures.</li> </ul> <p>[YFT peer review. Relevant to operating models.]</p>
	<p><b>Progress Summary:</b> The first Science Management Dialogue was held in August 2022 and the meeting page (<a href="https://meetings.wcpfc.int/meetings/smd01">https://meetings.wcpfc.int/meetings/smd01</a>) provides a set of papers and analyses that summarize progress.</p>			

	<b>South Pacific Albacore</b>	<b>Skipjack</b>	<b>Bigeye</b>	<b>Yellowfin</b>
<b>2023</b>	<p><b>Agree Target Reference Point (b).</b></p> <p>Commission agree a TRP for South Pacific albacore</p> <p><b>Develop management procedures (e)</b></p> <p>and</p> <p><b>Management strategy evaluation (f)</b></p> <ul style="list-style-type: none"> <li>• SC agree the operating models for MSE.</li> <li>• SC provide advice on performance of candidate management procedures.</li> <li>• SC provides advice on relevant elements of the monitoring strategy(d).</li> </ul>	<p>[SC consider multispecies aspects of WCPO harvest strategies and implications for the monitoring strategy]</p> <p><b>SC provide advice on relevant elements of the monitoring strategy (d).</b></p>	<p><b>Develop management procedures(e)</b></p> <p>and</p> <p><b>Management strategy evaluation (f)</b></p> <p>[Continue development of multispecies framework]</p> <ul style="list-style-type: none"> <li>• SC provide advice on performance of potential management procedures.</li> <li>• Commission consider advice on progress towards management procedures.</li> </ul> <p>[Updated stock assessment considered by SC19]</p>	<p><b>Develop management procedures(e)</b></p> <p>and</p> <p><b>Management strategy evaluation (f)</b></p> <p>[Continue development of multispecies framework]</p> <ul style="list-style-type: none"> <li>• SC provide advice on performance of potential management procedures.</li> <li>• Commission consider advice on progress towards management procedures.</li> </ul> <p>[Updated stock assessment considered by SC19]</p>

	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2024	<p><b>Develop management procedures (e)</b> and <b>Management strategy evaluation (f)</b></p> <ul style="list-style-type: none"> <li>• SC agree the operating models for MSE.</li> <li>• SC provide advice for review Target Reference Point</li> <li>• SC provide advice on performance of candidate management procedures.</li> <li>• SC provides advice on relevant elements of the monitoring strategy(d).</li> <li>• TCC consider the implications of candidate management procedures.</li> </ul> <p>[Updated stock assessment considered by SC20]</p>	<p>[SC consider multispecies aspects of WCPO harvest strategies and implications for the monitoring strategy]</p> <p>SC provides advice on the monitoring strategy.</p> <p><b>Commission adopts the monitoring strategy(d)</b></p>	<p><b>Develop management procedures(e)</b> and <b>Management strategy evaluation(f)</b></p> <p>[Continue development of mixed fishery framework]</p> <ul style="list-style-type: none"> <li>• SC provide advice on potential Target Reference Point.</li> <li>• SC provide advice on performance of candidate management procedures.</li> </ul>	<p><b>Develop management procedures(e)</b> and <b>Management strategy evaluation(f)</b></p> <p>[Continue development of mixed fishery framework]</p> <ul style="list-style-type: none"> <li>• SC provide advice on potential Target Reference Point.</li> <li>• SC provide advice on performance of candidate management procedures.</li> </ul>

	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2025	<p><b>Develop management procedures (e)</b> and <b>Management strategy evaluation (f)</b></p> <ul style="list-style-type: none"> <li>• SC provide advice on performance of candidate management procedures.</li> </ul> <p><b>Commission review and adopt a management procedure.</b></p> <p>[SPA-IWG plan: Adopted management procedure is <u>run</u> for the first time.]</p>	<p>SC reviews the interim management procedure in accordance with the monitoring program</p>	<p><b>Develop management procedures (e)</b> and <b>Management strategy evaluation (f)</b></p> <ul style="list-style-type: none"> <li>• SC agree the operating models for MSE.</li> <li>• SC provide advice on performance of candidate management procedures.</li> <li>• Commission consider and refine a candidate set of management procedures.</li> </ul> <p><b>Target Reference Point (b).</b></p> <ul style="list-style-type: none"> <li>• Commission consider TRP for bigeye within evaluation of candidate MPs.</li> </ul> <p><b>Tentative: Commission ADOPT a target reference point together with a management procedure.<sup>1</sup></b></p>	<p>[Continue development of mixed fishery framework]</p>

<sup>1</sup> See “2024 Update” for explanation

	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2026	<p>SC provides advice on the monitoring strategy.</p> <p>Commission reviews and adopts the monitoring strategy(d)</p>		<p><b>Develop management procedures(e)</b> and <b>Management strategy evaluation(f)</b></p> <ul style="list-style-type: none"> <li>• SC provide advice on performance of candidate management procedures.</li> <li>• SC provides advice on relevant elements of the monitoring strategy.</li> <li>• TCC consider the implications of candidate management procedures.</li> <li>• Commission consider and refine a candidate set of management procedures.</li> </ul> <p><b>Agree Target Reference Point (b).</b></p> <ul style="list-style-type: none"> <li>• Commission agree a TRP for bigeye.</li> </ul> <p><b>Commission ADOPT a management procedure.</b></p>	<p><b>Develop management procedures(e)</b> and <b>Management strategy evaluation(f)</b></p> <ul style="list-style-type: none"> <li>• SC agree the operating models for MSE.</li> <li>• SC provide advice on performance of candidate management procedures.</li> <li>• SC provides advice on relevant elements of the monitoring strategy.</li> <li>• TCC consider the implications of candidate management procedures.</li> <li>• Commission consider and refine a candidate set of management procedures.</li> </ul> <p><b>Agree Target Reference Point (b).</b></p> <ul style="list-style-type: none"> <li>• Commission agree a TRP for yellowfin.</li> </ul> <p><b>Commission ADOPT a management procedure under the mixed fishery approach.</b></p>

	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2027			SC provides advice for the Commission's agreement of the monitoring strategy(d)	SC provides advice for the Commission's agreement of the monitoring strategy(d)

## WCPFC Interim EM Standards:

### Appendix 1: Terms and Definitions

**Ancillary Logs** - Data records from the EM system that are supplemental to the EM Records, such as a record of changes in system configurations and settings and a summary of system health checks performed.

**Artificial Intelligence (AI)** – A machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. Artificial intelligence systems use machine and human-based inputs to (A) perceive real and virtual environments; (B) abstract such perceptions into models through analysis in an automated manner; and (C) use model inference to formulate options for information or action.

**Control Centre** - The EM control centre is a computer and software system that records and stores information from EM System components (e.g., video, sensor data, GPS data, system log data) and also controls the operation of onboard EM system components.

**Data Review Centre (DRC)** - A facility or entity with supporting software platform(s) used to analyse EM records and generate EM data. This could be a standalone facility or a designated space within the premises of the fisheries administration.

**Designated Installer or Service Technician** - A person or entity authorised by an EM Service Provider to install or service an EM System.

**EM Analyst** - A person qualified by the appropriate EM Program provider to analyse EM records and generate EM data in accordance with the EM standard and analysis procedures.

**EM Analysis** - See EM Records Analysis/Interpretation.

**EM Analysis Rate** - The proportion of EM records that are analysed to generate EM data.

**EM audit requirements** - the WCPFC agreed standards and procedures to be followed by an EM program in order to support the WCPFC agreed audit and assurance process. The requirements may include standards on processes such as EM record and EM data retention.

**EM Certifier** - An individual or organisation which has been approved by the appropriate authority to inspect and approve EM systems for use.

**EM Coverage** - The proportion of fishing effort (sets or trips) that is analysed through EM, calculated by multiplying the EM Installation coverage by the EM analysis rate].

**EM Data** - Data generated through analysis of EM records.

**EM data requirements** – the WCPFC agreed minimum data fields with associated data standards that must be generated from EM records and ancillary logs.

**EM Installation Coverage** - The proportion of vessels or fishing effort that have operational EM system installed and are recorded by the EM Program to collect EM Records to meet the EM Data Requirements.

**EM Program** - A CCM or regional program responsible for managing the use of EM systems to independently collect and generate fisheries data and information. This is different to the WCPFC EM Program.

**EM Records** - Footage (still images and video) and sensor data (if applicable) recorded by an EM System that can be analysed to generate EM Data to meet the EM Data Requirements. Sensors may include any number of sensors (e.g., hydraulic sensors) that are part of the EM equipment and whose data is recorded on the vessel as part of the EM system.

**EM Records Analysis** - The process of an EM Analyst reviewing EM records to generate EM Data.

**EM Service Provider** - A provider of EM technical and logistical services. An EM Program may have multiple EM Service Providers and they may provide different services within the program (e.g., onboard hardware, DRC software, DRC review services).

**EM analysis software** – any software used by an EM Analyst to generate EM data. This software is often provided by the EM Service Provider and can include a range of features that facilitates the efficient work of the EM Analyst.

**EM System** - All the vessel and shore-based components supporting the generation, storage, transmissions, analysis and reporting of EM Records.

**Event** - An occurrence in the EM Records that is enumerated into EM data.

**Fishing** - as defined in WCPFC Convention Article 2(d)

**Fishing Trip** – The period between either (a) a vessel's departure from port after unloading part or all of the catch to transit to a fishing area, or (b) a vessel recommences fishing operations or transits to a fishing area after transshipping part or all of the catch at sea, and the time that the vessel either (c) returns to port to unload part or all of its catch, or (d) ceases fishing operations to tranship part or all of its catch at sea.

**Geolocation device** - A device that is used to capture information on vessel position that can also be used to determine vessel speed and heading.

**Independent** - with respect to audits - no financial or current employment interest with the DRC

**Regional Agency** - A regional or sub-regional organisation that may support CCM national EM Programs and EM Systems.

**Review for Data Quality** - The verification process of re-analysing/interpreting a portion of previously analysed EM records to determine completeness, adherence to protocols, and accuracy of the EM Data produced by the EM Analyst.

**Sensors** - EM systems may be equipped with a variety of integrated sensors that can provide additional information on fishing activity, trigger activation or adjustment of configurations of cameras, and identify points of interest to expedite EM video review. This may include "synthetic sensors" that use camera imagery used to capture imagery of fishing activities.



**Uninterruptible power supply (UPS)** - Provides power to the system and enables controlled shutdown in the event of a power loss so as to preserve the security and integrity of data <sup>1</sup>.

**User interface** - A display that communicates EM system status messages and provides views of onboard cameras.

**Vessel Monitoring Plan (VMP)** - A document describing how an electronic monitoring system is specifically positioned and configured on a vessel (e.g. camera placement with images of camera views and types and locations of sensors) to allow effective monitoring of fishing activity and accurate generation of EM Data specified by the EM Program.

**Vessel Operator** - any person who is in charge of, directs or controls a vessel, charterer and master.

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<sup>1</sup> [CMM 2014-02](#) Annex 1 (5) "ALCs fitted to fishing vessels must be protected so as to preserve the security and integrity of data referred to in para 1."

## Appendix 2: Technical EM standards

### Onboard EM Systems

Onboard EM Systems comprise all vessel components supporting the acquisition of and reporting of EM Records. Onboard EM Systems MUST be configured such that they allow generation of the data fields set out in the EM data requirements. The core EM System components covered in these Specifications, Standards, and Procedures (SSPs) are: control centre, user interface, cameras, geolocation device, uninterruptible power supply, sensors, and communication system. Together, these components ensure that required information is collected, including system health status, to support fisheries management and enforcement objectives.

On-board EM System component	SSP
<i>1. Control centre</i>	<p>The EM system control centre:</p> <ol style="list-style-type: none"> <li>a. MUST control all onboard EM hardware components.</li> <li>b. MUST be able to connect to the vessel’s power source and sustain this power source throughout the duration of the fishing trip.</li> <li>c. MUST store and SHOULD transmit system health status information.</li> <li>d. MUST have sufficient storage capacity for all EM Records required to be generated [during a fishing trip] until EM Records are transmitted to a DRC for review.</li> <li>e. SHOULD have sufficient backup storage to mitigate potential data loss.</li> <li>f. SHOULD have unambiguous and unique identification of storage devices (e.g., barcode on hard drives).</li> <li>g. MUST allow EM records to be transmitted, stored or accessed securely. To secure EM records, the system SHOULD be equipped with applications such as user logins, EM record encryption and firewalls.</li> <li>h. MUST store all EM Records on storage devices and in formats that are compatible or can be readily translated into formats that are compatible with CCMs DRC hardware and EM review software.</li> </ol>

On-board EM System component	SSP
2. <i>User interface</i>	<p>The onboard user interface:</p> <ul style="list-style-type: none"> <li>a. MUST include a display on the vessel.</li> <li>b. MUST include software or hardware that shows EM system health status and real time images from installed cameras on the display.</li> <li>c. MUST allow only authorised users (e.g., EM Service Providers, EM service technicians) to adjust system configurations.</li> <li>d. COULD Include a keyboard, mouse, touchscreen, or other device to allow user inputs to the system.</li> </ul>
3. <i>Cameras</i>	<ul style="list-style-type: none"> <li>a. An EM system MUST be outfitted with cameras to capture imagery of fishing activity.</li> <li>b. The number and position of cameras MUST be sufficient to capture necessary imagery to allow generation of the data fields set out in the EM data requirements.</li> <li>c. Cameras MUST, capture imagery that meets image quality standards under typical fishing conditions that allow for an EM Analyst to generate the data fields set out in the EM data requirements. As a minimum standard<sup>4</sup>: <ul style="list-style-type: none"> <li>1. Frame rate MUST be no lower than 5 frames per second (fps) for any imagery requiring identification of species; and</li> <li>2. Resolution MUST be no lower than 720p for any imagery requiring identification of species.</li> </ul> </li> <li>d. SHOULD be capable of accommodating remote or onboard configuration of parameters to optimise camera functionality throughout a typical fishing trip;</li> </ul> <p>Recorded imagery:</p> <ul style="list-style-type: none"> <li>e. MUST be recorded in a widely used and accessible video or image file format, such as MP4 or JPEG, or other compression standards that are able to be viewed.</li> <li>f. MUST include a timestamp, location, and vessel identification information on the video or image.</li> </ul>

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<sup>4</sup> Other camera configurations (e.g. shutter speed, bitrate etc.) may vary to balance collection of adequate footage versus storage and transmission costs

On-board EM System component	SSP
<i>4. Geolocation data and device</i>	<ul style="list-style-type: none"> <li>a. A geolocation device<sup>5</sup> MUST record vessel location coordinates and the associated date and time in a format capable of integration with EM Records</li> <li>b. The geolocation device MUST be installed and remain in a location in accordance with the manufacturer’s guidelines such that the device can reliably function.</li> <li>c. The EM system COULD transmit geolocation data and associated date and time, and vessel identification information to DRCs on a regular basis, as defined by the relevant program requirements, throughout the duration of a fishing trip in a format compatible with DRC software.</li> <li>d. The EM system COULD be able to verify whether transmissions of geolocation data and associated date and time, and vessel identification information to DRCs are successful.</li> <li>e. If the EM system is unable to transmit geolocation data due to a communication error, it SHOULD store geolocation data and automatically send it as soon as practically possible after communication is restored.</li> </ul>
<i>5. Uninterruptible power supply</i>	The EM system SHOULD include a UPS in the event that the main source of power is interrupted.
<i>6. Sensors</i>	<ul style="list-style-type: none"> <li>a. EM systems SHOULD be outfitted with sensors, which may include the use of camera imagery as a synthetic sensor, to determine whether fishing activity is occurring, e.g., hydraulic or drum rotation sensors. If the EM system is outfitted with sensors, then it SHOULD be capable of generating and recording a log file of readings from system sensors stored in a similar manner to time and geolocation information.</li> </ul>
<i>7. Communication system</i>	<ul style="list-style-type: none"> <li>a. The EM System SHOULD have or integrate with at least one network communication system that enables the reliable and regular transmission (e.g., daily or weekly, hourly) of near-real-time data on system health (including still images for EM</li> </ul>

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<sup>5</sup> The EM system may use an existing geolocation device on type-approved hardware on the vessel (e.g., VMS) or have its own geolocation device.

<p>On-board EM System component</p>	<p>SSP</p>
	<p>system status verification when prescribed by the program requirements), sensors (if applicable), and geolocation to DRCs during all fishing activity, and to the extent possible, supports remote access to the EM system by the EM Service Provider or their designated service technicians.</p> <ul style="list-style-type: none"> <li>b. The network communication system(s) SHOULD be a widely used and globally recognized technology, such as <ul style="list-style-type: none"> <li>i. 3G, 4G, or 5G cellular networks.</li> <li>ii. Wi-Fi</li> <li>iii. Satellite communications.</li> </ul> </li> <li>c. The EM system COULD be able to verify whether transmissions of data on system health (including still images), sensors, and geolocation to DRCs are successful.</li> <li>d. The EM System SHOULD have ethernet or any other communication system allowing data transfer and remote access to the system via the onboard connection.</li> </ul>

General Requirements for onboard EM Components	
1. <i>Weather Resistance</i>	EM hardware components that are utilized on deck and are exposed to the elements (e.g., sensors and cameras) MUST be sufficiently dust and water resistant (e.g., IP66) and durable (e.g., corrosion, impact, and vibration resistant) to operate reliably under the range of conditions expected in their location on fishing vessels. IP67 or IP68 SHOULD be used for those locations where significant water contact is expected.
2. <i>Tamper Resistant and Tamper Evident</i>	<ul style="list-style-type: none"> <li>a. The onboard hardware MUST be robust and tamper evident to mitigate the risk of intentional sabotage or malfunctions. This MUST include physical and/or software features.</li> <li>b. The EM System SHOULD feature a login history tool which allows the tracking of information on when and by whom system configuration settings have been accessed offering insights into possible tampering attempts.</li> </ul>
3. <i>Compatibility with Other On Board Equipment</i>	The EM System SHOULD be capable of functioning in close physical proximity to other onboard electrical and hydraulic equipment (i.e., EM System operations MUST not be materially impacted by the presence of other onboard electrical equipment and MUST not materially impact the proper functioning of other onboard electrical equipment).
4. <i>Compatibility with DRC Review Software</i>	All EM Records generated by the EM system MUST be in a compatible format or be able to be converted into a compatible format, to allow the ingestion of the EM Records into an analysis software being used.
5. <i>Capable of Spatial Calibration</i>	An EM system SHOULD have capability for spatial calibration for accurate image and fish length measurements.
6. <i>System Health Status</i>	<p>The system SHOULD execute a system health test either automatically or when initiated by user and MUST provide a visual signal on the display that the system is operational (i.e., it should be obvious, simply by looking at the display, whether or not the system is working properly).</p> <ul style="list-style-type: none"> <li>a. The EM system MUST be able to generate a log file that allows an EM program to determine the operational health status of the system. The log file SHOULD include details of EM system processes, including, but not limited to: <ul style="list-style-type: none"> <li>i. System power up</li> <li>ii. System shutdown planned</li> <li>iii. System shutdown unplanned (e.g., power cut)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>iv. Camera connectivity</li> <li>v. Camera recording start and stop times (planned)</li> <li>vi. Camera recording error<sup>6</sup></li> <li>vii. Available hard drive space</li> <li>viii. Sensor connectivity, if applicable</li> <li>ix. Sensor recording start and stop times (planned) , if applicable</li> <li>x. Sensor recording error, if applicable</li> <li>xi. Activation and deactivation of recording triggers (e.g., vessel speed, drum rotation sensors, geofencing, and time scheduled), if applicable</li> </ul> <p>b. System SHOULD undertake regular system health checks throughout the duration of the fishing trip at a frequency defined by the EM Program and MUST show malfunction alerts (errors and warnings) on the display of the user interface (Onboard User Interface) of the control centre.</p> <p>c. The EM system COULD be able to capture and store single frame images from each onboard camera on a regular basis (e.g., timed intervals, such as hourly, or on event triggers such as geofences) to show that cameras are operational, not obstructed, obscured, or displaced.</p>
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<sup>6</sup> The appropriate time interval may require regular review and updating.

## Installation, Operation, and Service of onboard EM Systems

Requirement	SSP
<p>1. <i>EM system installation</i></p>	<p>CCMs SHOULD ensure that their EM Service Provider or their designated installer complies with the relevant EM standards. To this end, CCMs are encouraged to refer to Annex 1 (voluntary guidelines for EM system installation).</p> <p>The vessel owner or their designated representative:</p> <ol style="list-style-type: none"> <li>a. MUST provide information describing the vessel configuration and systems to facilitate EM system installation.</li> <li>b. MUST make the vessel and appropriate personnel (such as engineers, fishing master, multilingual staff, etc.) available and provide the EM Service Provider unfettered access, including to the ship’s power supply, to complete EM system installation.</li> </ol>
<p>2. <i>Vessel Monitoring Plan</i></p>	<ol style="list-style-type: none"> <li>a. Vessel owner or EM Service Provider MUST complete a Vessel Monitoring Plan and submit it to the CCMs DRC for approval.</li> <li>b. A copy of the approved Vessel Monitoring Plan SHOULD be maintained aboard the vessel at all times during fishing operations.</li> <li>c. Vessel Monitoring Plans MUST be updated and submitted to the EM Program at a frequency determined by the EM Program and anytime changes are made to information or requirements outlined in the VMP (e.g., new vessel contact information, change in EM System configuration, change in catch handling guidelines).</li> <li>d. The Vessel Monitoring Plan:               <ol style="list-style-type: none"> <li>i. MUST include contact information for the EM Service Provider, vessel owner(s), and vessel operator(s), and base manager(s) (if applicable).</li> <li>ii. MUST include general vessel information as specified in the EM data requirements</li> <li>iii. MUST include a diagram, description, and photo(s) of the vessel layout that identifies where key fishing activities will occur on the vessel (e.g., hauling, sorting, discarding) and COULD include measurements of all items, tools, or areas on the vessel that EM to support estimation of lengths of fish caught.</li> <li>iv. A description of the EM setup:</li> </ol> </li> </ol>



## Installation, Operation, and Service of onboard EM Systems

Requirement	SSP
	<ul style="list-style-type: none"> <li>● MUST include the number and location of cameras including images of their installation location and an image from each camera's perspective, and include nighttime images, as appropriate, to demonstrate sufficient lighting.</li> <li>● MUST include a description and image of the location of all other components of the installed EM system (e.g., geolocations system, EM control system, sensors, power supply).</li> <li>● MUST include relevant details of system configuration settings, including:               <ul style="list-style-type: none"> <li>○ Camera configuration settings (e.g., frame rates, resolution, bitrate)</li> <li>○ Sensor units and threshold values, if applicable</li> <li>○ Data recording frequencies and/or sensor triggers for recording, if applicable</li> <li>○ Software and Firmware versions</li> <li>○ Spatial calibration settings, if applicable</li> </ul> </li> <li>v. MUST include any catch handling procedures required to ensure that EM Records allow collection of the data fields set out in the EM data requirements (e.g., handling in view of cameras, allowable discard locations). See Annex 2 for references to existing catch handling procedures.</li> <li>vi. MUST include vessel duty of care responsibilities to prevent system malfunctions and ensure effective operation of the system, such as:               <ul style="list-style-type: none"> <li>● Verifying system functionality at the beginning and at regular intervals throughout the duration of each trip</li> <li>● Instructions for cleaning camera lenses</li> </ul> </li> <li>vii. MUST include vessel responsibilities in the event of system malfunctions that describe the steps that must be taken.</li> <li>viii. MUST include details of what steps, if any, are required to ensure the transmission of the EM Records to the DRC.</li> </ul>
<p><i>3. Field and Technical Support</i></p>	<p>The vessel owner/operator:</p>

Installation, Operation, and Service of onboard EM Systems

Requirement	SSP
<i>Services</i>	<ul style="list-style-type: none"> <li>a. MUST follow duty of care responsibilities described in the <u>Vessel Monitoring Plan</u>.</li> <li>b. MUST report EM system malfunctions to the appropriate contact as outlined in the Vessel Monitoring Plan. This should be done as soon as is practicable, and include details of the date, time, and, if possible, the geolocation when the malfunction was first detected.</li> <li>c. MUST follow vessel responsibilities outlined in the <u>Vessel Monitoring Plan</u> in the event of system malfunctions.</li> </ul> <p>The EM Program:</p> <ul style="list-style-type: none"> <li>a. MUST define vessel responsibilities in the event of system malfunctions that describe the steps that must be taken under different failure scenarios.</li> <li>b. SHOULD respond to EM Service Providers or vessel owners/operators in a timely manner.</li> </ul>

SSP: Data Review Centres

A data review centre (DRC) is an entity with access to supporting EM analysis software used by EM analysts to analyse EM Records and generate EM Data. DRCs may serve individual CCMs, subregional groupings, or the entire WCPFC membership. They may also be administered by individual CCMs members, a sub-regional or regional body, or a third-party (commercial) provider. This SSP is not specific to any DRC structure and covers the required infrastructure (hardware and software) to analyse EM Records.

DRC Component	SSP
<i>1. EM Analysis Software</i>	The DRC MUST use EM analysis software to facilitate the generation of EM Data from EM Records. The EM analysis software:

DRC Component	SSP
	<ul style="list-style-type: none"> <li>a. MUST be compatible with the file types, data structures, syntax, and semantics of EM Records that will be analysed with the software.</li> <li>b. SHOULD be the latest version of analysis software, including security patches</li> <li>c. SHOULD be able to display EM analysed output: <ul style="list-style-type: none"> <li>i. Display the vessel track on a map based on geolocation data integrated in the EM Records, with an option to display the geolocation data of each vessel.</li> <li>ii. Display synchronised imagery from all cameras simultaneously with zoom capability and other relevant imagery features.</li> <li>iii. Display a visual timeline with sensor readings or status, if applicable.</li> <li>iv. Display synchronised sensor data (including vessel heading and speed) and video imagery simultaneously, if applicable.</li> </ul> </li> <li>d. SHOULD be able to spatially calibrate an image and measure the length of species brought onboard as required by the EM Program (e.g. through a digital measuring tool in the EM analysis software).</li> <li>e. SHOULD allow the EM Analyst to create annotations to mark events where fishing activity occurred within the EM records.</li> <li>f. SHOULD be able to extract and save segments of video and sensor data, including extraction and saving of still images and the ability to extract short duration video clips of catch.</li> <li>g. MUST be able to produce EM Data into a format compatible (or that can easily made compatible) with agreed EM data requirements for incorporation into WCPFC databases.</li> <li>h. SHOULD be able to import EM records (and related sensor, if applicable, and annotated data) from systems of other EM Service Providers.</li> <li>i. SHOULD have the ability to change the playback speed of the footage (e.g., 0.5x, 1x, 2x, 6x, 8x, 10x)</li> </ul>
<p><i>2. EM Analysis Workstations</i></p>	<p>The DRC MUST have EM analysis workstation(s) where EM Analysts will use EM analysis software to generate EM Data from EM Records. The EM analysis workstation:</p>

DRC Component	SSP
	<ul style="list-style-type: none"> <li>a. MUST have hardware and software, or cloud-based platforms that enable effective EM analysis</li> <li>b. MUST have reliable data transmission capabilities sufficient for efficient streaming or download/upload of data required for EM Records analysis, reporting of EM Data, and storage of EM Records.</li> <li>c. MUST have proper ergonomics that support analyst well-being, quality, and efficiency.</li> <li>d. MUST be designed to minimize the risks to commercially sensitive information.</li> </ul>
<p><i>3 EM Analysts</i></p>	<p>The use of EM software to generate EM Data from EM Records MUST be conducted by EM Analysts.</p> <p>The EM Analysts:</p> <ul style="list-style-type: none"> <li>• MUST complete an appropriate training program which covers materials including (but not limited to): species ID, basic fishing practices, and EM review processes).</li> <li>• EM analysts MUST/MUST not be employees of a fishing company involved in the observed fishery or have other direct conflicts of interest.</li> <li>• Training should cover the EM analysis process and relevant topics identified from the Agreed Minimum Standards and Guidelines for the Regional Observer Program (<a href="https://www.wcpfc.int/wcpfc-regional-observer-program-standards%20latest">https://www.wcpfc.int/wcpfc-regional-observer-program-standards%20latest</a> ;pg 12).</li> </ul>
<p><i>4. A system to monitor EM System health on vessels</i></p>	<ul style="list-style-type: none"> <li>a. The EM Program SHOULD have a health monitoring system to receive and display near real-time information of onboard EM System health status (<u>System Health Status</u>), this SHOULD include still images to verify functionality of onboard cameras (<u>System Health Status</u>) and geolocation data (<u>Geolocation device</u>). This system may be part of the DRC.</li> <li>b. If applicable, the onshore health monitoring system MUST receive any malfunction alerts (errors and warnings) that have been generated from the onboard health monitoring system.</li> <li>c. The health monitoring system SHOULD be able to display the latest geolocation of all covered EM Systems on a map.</li> </ul>

DRC Component	SSP
<i>5. Storage of EM records and EM data</i>	EM records and associated EM data MUST be retained in accordance with any WCPFC audit requirements.

## Appendix 2, Annex 1: Guidelines for administration of an EM program

### EM system installation

The EM Service Provider or their designated installer SHOULD:

- a. coordinate installation with the vessel owner or their designated representative.
- b. install an onboard EM system that meets the performance standards described in onboard EM System Component and General Requirements.
- c. ensure the onboard EM system meets the performance standards described in onboard EM System Component and General Requirements through system tests.
- d. provide the necessary information for the vessel owner/operator or their designated representative to complete a Vessel Monitoring Plan (Vessel Monitoring Plans) or complete the Vessel Monitoring Plan on behalf of the owner/operator.
- e. brief the vessel operator and crew member(s) and provide documentation on EM system operation, maintenance, and procedures to follow during regular operation and in the event of a system malfunction (Vessel Monitoring Plans).
- f. MUST submit notification to the relevant EM Program of system installation in the agreed form that attests to the system functionality and its conformance with the performance standards described in onboard EM System Component and General Requirements.

### Field and technical support services

The EM Service Provider, in a timely manner, SHOULD:

- a. Communicate with vessel operators and the relevant EM Program to coordinate service needs, resolve specific program issues, and provide feedback on program services.
- b. Provide maintenance and support services, including software and firmware updates, such that all installed EM systems perform according to the performance specifications described in onboard EM System Component and General Requirements and that field services are scheduled and completed with minimal delays to minimise disruption to fishing operations.
- c. Provide technical assistance to vessels upon request on EM system operations, diagnosing causes of system malfunctions, and providing assistance for resolving malfunctions. This assistance SHOULD be available 24 hours a day, seven days a week, year-round. This service must be provided in the relevant languages as defined in the program specifications.
- d. Submit to the relevant EM Program, and the EM Certifier, where appropriate, reports of all requests for technical assistance from vessels and service calls that include:
  - i. The name and designation of the vessel point of contact
  - ii. The date(s) and time a request for service was made.
  - iii. The date(s) and time(s) when the EM Service Provider called or visited the vessel to provide technical assistance.
  - iv. A description of the issue.
  - v. A description of how the issue was resolved, including actions completed during all service calls or visits in response to the request for service.
  - vi. The date and time the issue was resolved.

## Appendix 2, Annex 2: Existing WCPFC Catch handling procedures

Mandatory and non-mandatory catch handling practices are incorporated into several Conservation and Management Measures and also reflected in 'Best handling practices and guidelines'.

These guidelines and requirements SHOULD be considered when determining camera number and positions.

At the time of preparing these EM Standards, these were some of the applicable requirements for WCPFC catch handling procedures:

### **CMM2022-04 [Sharks]**

Para 19 ***"CCMs shall ensure that sharks that are caught and are not to be retained, are hauled alongside the vessel before being cut free in order to facilitate a species identification. This requirement shall only apply when an observer or electronic monitoring camera is present, and should only be implemented taking into consideration the safety of the crew and observer."***  
"[Emphasis added]

Para 20 ***"Beginning on January 1, 2024, for sharks that are caught by longline vessels and are not retained, CCMs shall require their fishing vessels to release these sharks as soon as possible, taking into consideration the safety of the crew and observer, using the following guidelines:***

- (1) Leave the shark in the water, where possible; and*
- (2) Use a line cutter to cut the branchline as close to the hook as possible."*

### **CMM2019-05 Mobulid rays**

Para 4 ***"CCMs shall prohibit their vessels from retaining on board, transshipping, or landing any part or whole carcass of mobulid rays caught in the Convention Area."***

Para 5 ***"CCMs shall require their fishing vessels to promptly release alive and unharmed, to the extent practicable, mobulid rays as soon as possible, and to do so in a manner that will result in the least possible harm to the individuals captured. CCMs should encourage their fishing vessels to implement the handling practices detailed in Annex 1, while taking into consideration the safety of the crew."***

### **CMM2018-04 Sea turtles**

Para 4 ***"CCMs shall require fishermen on vessels targeting species covered by the Convention to bring aboard, if practicable, any captured hard-shell sea turtle that is comatose or inactive as soon as possible and foster its recovery, including giving it resuscitation, before returning it to the water. CCMs shall ensure that fishermen are aware of and use proper mitigation and handling techniques, as described in WCPFC guidelines."***

### **CMM2018-03 Seabirds**

Para 11 ***"CCMs are encouraged to adopt measures aimed at ensuring that seabirds captured alive during longlining are released alive and in as good condition as possible and that wherever possible hooks are removed without jeopardizing the life of the seabird concerned. Research into the survival of released seabirds is encouraged."***

## **Resolution 2005-03 Non-target species**

Para 2 *“Any such non-target fish species that are not to be retained, shall, to the extent practicable, be promptly released to the water unharmed.”*

### **See also the following safe handling and/or release guidelines:**

- Sharks
  - <https://cmm.wcpfc.int/supplementary-info/supplcmm-2022-04-2>
- Manta and mobulid rays
  - <https://cmm.wcpfc.int/supplementary-info/supplcmm-2019-05>
- Sea turtles
  - <https://cmm.wcpfc.int/supplementary-info/supplcmm-2018-04-1>
  - <https://cmm.wcpfc.int/supplementary-info/supplcmm-2018-04-1>
- Seabirds
  - <https://cmm.wcpfc.int/supplementary-info/supplcmm-2018-03>
- Cetaceans
  - <https://cmm.wcpfc.int/supplementary-info/supplcmm-2011-03-2>
  - <https://cmm.wcpfc.int/supplementary-info/supplcmm-2011-03-1>



### Appendix 3: Minimum EM data requirements

The ROP minimum data fields were chosen to form the basis of the Minimum EM data fields (what is collected) and requirements (exactly how it is recorded, e.g., format). New fields have been proposed where there is the need for an EM-version of a ROP field which is no longer relevant (e.g., details of the EM analysts as a replacement for details of the ROP observer) or a clear gap in the ROP fields. **Those highlighted fields should be considered during the next review of EM data standards.**

**Note:** The current draft does not yet have all the technical detail necessary for EM data requirements (see [https://www.wcpfc.int/doc/data-05/e-reporting\\_ssps](https://www.wcpfc.int/doc/data-05/e-reporting_ssps) for an example for ER standards for logbook reporting versus ROP data fields <https://www.wcpfc.int/system/files/Table-ROP-data-fields-instructions.pdf> ), but this will be prepared once feedback has been received on the proposed EM data fields.

WCPFC ROP MINIMUM STANDARD DATA FIELD	DESCRIPTION	NOTES ON EM PROTOCOL	PROPOSED EM DATA FIELD
<b>GENERAL VESSEL AND TRIP INFORMATION FOR ALL VESSEL TYPES</b>			
Name of vessel	Name of vessel. This information would normally be linked to a VESSEL reference database (e.g. WCPFC RFV) which will ensure consistency/standardisation.	The EM system should have linkages to the information submitted to the WCPFC Record of Fishing Vessels to be consistent with these vessel registers.  If the IMO or WCPFC VID is provided, then there is no need to provide the other vessel identification data. If the IMO, WCPFC VID and/or FFA VID are not provided, then the EM data provider needs to provide other data (Vessel Name, Flag State Registration and IRCS to uniquely identify the vessel).	YES
Flag State Registration Number			NO
International Radio Call Sign			YES
Vessel Owner/Company			NO
Hull markings consistent with CMM 2004-03			NO
“WCPFC Identification number” WIN markings consistent with CMM 2004-03			NO

WIN format for markings consistent with CMM 2004-03			NO
International Maritime Organization 'IMO' or Lloyd's Register number 'LR'			NO
WCPFC RFV VID			YES

WCPFC ROP MINIMUM STANDARD DATA FIELD	DESCRIPTION	NOTES ON EM PROTOCOL	PROPOSED EM DATA FIELD
<b>VESSEL TRIP INFORMATION</b>			
EM trip ID	Trip identifier. This value must be unique.	generated by the source system and could for example be formatted as follow: VESSEL NAME + TRIP DEPARTURE DATE	YES
Date and time of departure from port	The UTC date and time the vessel DEPARTS a port to start its fishing trip. If the vessel is departing from a carrier vessel after an at sea transshipment, the UTC date and time of the departure from a carrier vessel will be used.	Dates must be ISO 8601 standard and UTC. Latitude and Longitude coordinates must be ISO 6709 standard. The international standard of Location Code (UNLOCODE) for PORTs must be used.	YES
Port of departure	Port of DEPARTURE (UNLOCODE) for when a vessel starts a new trip from a port. If the vessel is departing from a carrier vessel after an at sea transshipment, this field will be "AT SEA" and the coordinates of the 'at sea' departure MUST be provided.		YES

Date and time of return to port	YES		YES
Port of return	YES <i>If the vessel END the trip AT SEA (through transshipment), this field will be "AT SEA" and the coordinates of the 'at sea' MUST be provided.</i>		YES
Name of receiving vessel	For when the vessel is engaged in a transshipment activity. This field only required when start or end of trip is 'AT SEA'  Consider vessel unique identifier. ( <i>potentially could include WCPFC RFV VID</i> )	Entered into EM records analysis system by EM Analyst.	NO
Total number of sets	Total number of sets conducted by the vessel during the trip.	Generated by EM system based on sensors or vessel speed or by another method used by the EM service provider.	YES

WCPFC ROP MINIMUM STANDARD DATA FIELD	DESCRIPTION	NOTES ON EM PROTOCOL	PROPOSED EM DATA FIELD
<b>OBSERVER INFORMATION</b>			
Observer name			NO
Nationality of observer			NO
Observer provider -country and or organization			NO

Date, time and location of embarkation			NO
Date, time and location of disembarkation			NO
<b>EM ANALYSIS INFORMATION</b>			
EM Analyst (name and code)	EM Analyst's who produced EM data.	This SHOULD be generated by the EM analysis software to ensure standardization.	YES
EM program	EM program provider code e.g. FJEM (Fiji E-Monitoring Program).	Generated by the EM analysis soft. It should adhere to the format "xxEM" where xx is the ISO two-letter code of the CCM providing the data.	YES
EM analysis software	Software name and version of the system used to analyse the EM records.	Generated by the EM analysis software	YES
EM Service Provider	The name of the EM technical service provider for the EM records analysis software.	Generated by the EM analysis software	
EM analysis start date and time	The date and time when the analysis of the EM records STARTED [at the trip level]	This SHOULD be generated by the EM analysis software based on EM analyst activity	YES
EM analysis end date and time	The date and time when the analysis of the EM records ENDED [at the trip level]	This SHOULD be generated by the EM analysis software based on EM analyst activity	YES
EM review type	A place holder field to reflect that EM reviews may have different strategies with different fields collected (e.g., a full review vs a review to verify bycatch mitigation use)	This SHOULD be generated by the EM analysis software based on EM analysts tasking	YES

WCPFC ROP MINIMUM STANDARD DATA FIELD	DESCRIPTION	NOTES ON EM PROTOCOL	PROPOSED EM DATA FIELD
<b>CREW INFORMATION</b>			
Name of captain			NO
Nationality of captain			NO
Identification document			NO
Name of fishing master			NO
Nationality of fishing master			NO
Identification document			NO
Other crew			NO
Total number of crew			NO
<b>VESSEL ATTRIBUTES</b>			
Vessel cruising speed			NO
Vessel fish hold capacity			NO
Freezer type			NO
Length (specify unit)			NO
Tonnage (specify unit)			NO
Engine power (Specify unit)			NO
Radars			NO
Depth Sounder			NO

Global Positioning System (GPS)			NO
Track Plotter			NO
Weather Facsimile			NO
Sea Surface Temperature (SST) gauge			NO
Sonar			NO
Radio/ Satellite Buoys			NO
Doppler Current Meter			NO
Expendable Bathythermograph (XBT)			NO
Satellite Communications Services (Phone/Fax/Email numbers)			NO
Fishery information services			NO
Vessel Monitoring System			NO

WCPFC ROP MINIMUM STANDARD DATA FIELD	DESCRIPTION	NOTES ON EM PROTOCOL	PROPOSED EM DATA FIELD
<b>LONGLINE INFORMATION</b>			
<b>VESSEL ATTRIBUTES</b>			
Refrigeration Method			NO
<b>GENERAL GEAR ATTRIBUTES</b>			
Mainline material		May not be detectable depending on camera placement	NO
Mainline length			NO
Mainline diameter			NO
Branch line material(s)		May not be detectable depending on camera placement	NO
<b>SPECIAL GEAR ATTRIBUTES</b>			
Wire trace	The vessel uses wire traces on some or all their lines	Trip level: Indicate Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement	NO
Mainline hauler	Most long line vessel will have an instrument that hauls the lines in after it has been set- some very small vessels may haul line by hand.	Trip level: Indicate Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement -	NO
Branch line hauler	Some long line vessels may use special haulers to coil the branch lines.	Trip level: Indicate Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement	NO
Line shooter		See Deep setting line shooter below	NO
Automatic bait thrower	Most vessels manually throw the branch lines with the bait away from the wash, especially if the bait is vulnerable to bird strikes. However there are a number of vessels that use automatic bait throwers so the bait is constantly thrown away from the wash at a determined distance.	Trip level: Indicate Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement	YES

Automatic branch line attached	Most lines are attached manually at a regular distance along the mainline by a crewman, however some vessels may have an automatic branch line mechanisms that attaches the branch at regular intervals	Trip level: Indicate Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement	YES
Hook type		Set level: hook type or 'Could not be determined' recognising it may not be detectable depending on camera placement	NO
Hook size			NO
Tori Line (Changed WCPFC12)		Set Level: Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement if the vessel is using alternative seabird mitigation methods or is not required to use seabird mitigation	YES
Side setting with bird Curtain and weighted branch lines (Changed WCPFC12)		Set Level: Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement if the vessel is using alternative seabird mitigation methods or is not required to use seabird mitigation M	YES
Weighted branch lines- (Added WCPFC9)		Set Level: Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement if the vessel is using alternative seabird mitigation methods or is not required to use seabird mitigation	NO
Shark lines (Added WCPFC12)		Set Level: Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement	YES
Blue dyed bait		Set Level: Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement if the vessel is using alternative seabird mitigation methods or is not required to use seabird mitigation	YES
Distance between weight and hook (in metres),		Set Level: Estimate, or 'Could not be determined' recognising it may not be detectable depending on	NO



(Added WCPFC9)		camera placement if the vessel is using alternative seabird mitigation methods or is not required to use seabird mitigation	
Deep setting line shooter (Changed WCPFC12)		Set Level: Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement if the vessel is using alternative seabird mitigation methods or is not required to use seabird mitigation	YES
Management of offal discharge Added WCPFC12)	Dumping offal to attract seabirds away from hooks, or not dumping offal	Set Level: Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement if the vessel is using alternative seabird mitigation methods or is not required to use seabird mitigation	YES
Strategic offal disposal (Changed WCPFC12)		See management of offal discharge	NO
Hook shielding device		Set Level: Yes, No, or 'Could not be determined' recognising it may not be detectable depending on camera placement if the vessel is using alternative seabird mitigation methods or is not required to use seabird mitigation	YES

WCPFC ROP MINIMUM STANDARD DATA FIELD	DESCRIPTION	NOTES ON EM PROTOCOL	PROPOSED EM DATA FIELD
<b>EFFORT INFORMATION FOR THE SET</b>			
Date and time of start of set	When the first buoy is thrown into the water	Auto-generated by the EM system due to the linking of EM records to time and geolocation data	YES
Latitude and Longitude of start of set			YES
Date and Time of end of set	When the last buoy is thrown into the water		YES
Latitude and Longitude of end of set			YES
Total number of baskets or floats			YES
Number of hooks per basket, or number of hooks between floats		PROTOCOL is to count hooks from first 3 baskets, middle 3 baskets and last 3 baskets and the average HOOKS per BASKET (successive floats) can then be determined.	YES
Total number of hooks used in a set		Could be automatically derived from hooks per basket and number of baskets	YES
Line shooter speed			NO
Length of float-line			NO
Distance between branch-lines			NO
Length of branch-lines			NO
Time-depth recorders (TDRs)			NO
<b>Number of light-sticks</b>		<b>Lights stick used: Yes, No, 'Could not be determined'</b>	<b>NO</b>
Target species			NO
Bait Species		PROTOCOL is to review the BAIT used during the analyses conducted over the setting of the first 3 baskets, the middle 3 baskets and the last 3 baskets. This should be possible using appropriate placement of the camera mounted to view the SETTING process	YES
Date and time of start of haul	When the first buoy is thrown from the water		YES

Latitude and Longitude of start of haul		Auto-generated by the EM system due to the linking of EM records to time and geolocation data	
Date and time of end of haul	When the last buoy is retrieved from the water		YES
Latitude and Longitude of end of haul			
Total amount of baskets, floats monitored by observer in a single set	The total number of floats or baskets monitored by the EM Analyst in a single HAUL		YES

WCPFC ROP MINIMUM STANDARD DATA FIELD	DESCRIPTION	NOTES ON EM PROTOCOL	PROPOSED EM DATA FIELD
<b>INFORMATION ON CATCH FOR EACH SET</b>			
Hook number, between floats	The hook number that the animal is caught on count hooks from the last float hauled on board to next float hauled on board	Striped marlin, seabirds, sharks and rays, marine turtles, cetaceans	YES
Species code			YES
Length of fish		Estimate, or 'Could not be determined'. Not all vessels, EM systems and EM analysis software may have this capability. Further, this may require specific catch handling practices. It is recommended that the SSP provide advice on the coverage required for stock assessment catch verification purposes	YES
Length measurement code		Details of the length measurement approach, if applicable, should be included in the EM program description	YES
Gender		EM Analyst declaration. Not possible for most species (use U-unknown). Can collect sharks and rays sex, for example, if shown ventrally. Some other species may be possible (e.g. mahi mahi and opah).	YES
Condition when caught		EM Analyst declaration	YES
Fate		EM Analyst declaration	YES
Condition when released		EM Analyst declaration	YES
Tag recovery information			NO
<b>Catch event date and time</b>	<b>UTC date and time (to the nearest second) of the catch event (as recorded by the EM equipment)</b>	<b>Field automatically generated by EM system when the EM analyst records the catch coming onboard or if landed at all, when it is struck off, released or discarded. In case the software does not allow recording this information, then this could be recorded as 'Not Available'.</b>	<b>NO</b>

Catch event latitude and longitude	Latitude and longitude of each catch (ISO 6709 standard)	Field automatically generated by the EM system. Minimum resolution of position is 1/1000 of a minute.  In case the software does not allow recording this information, then this could be recorded as 'Not Available'.	NO
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WCPFC ROP MINIMUM STANDARD DATA FIELD	DESCRIPTION	NOTES ON EM PROTOCOL	PROPOSED EM DATA FIELD
<b>SPECIES OF SPECIAL INTEREST</b>			
<b>Marine Reptiles, Marine Mammals, Sea Birds, Designated Shark Species</b>			
<b>GENERAL INFORMATION</b>			
Type of interaction	Details of the gear interaction with the SSI. For example, hooking position for marine turtles and sharks.	EM	YES
Date and time of interaction		Auto-generated by the EM system due to the linking of EM records to time and geolocation data	YES
Latitude and longitude of interaction			YES
Species code of marine reptile, marine mammal, or seabird.			YES
<b>LANDED ON DECK</b>			
Length		Estimate, or 'Could not be determined'.  Not all vessels, EM systems and EM analysis software may have this capability. Further, this may require specific catch handling practices.  It is recommended that the SSP provide advice on the coverage required for stock assessment catch verification purposes	YES

Length measurement code		Details of the length measurement approach, if applicable, should be included in the EM program description	YES
Gender		EM Analyst declaration. Not possible for most species (use U-unknown).	YES
Estimated shark fin weight by species			NO
Estimated shark carcass weight by species			NO
Condition when landed on Deck		EM Analyst declaration	YES
Condition when released		EM Analyst declaration	YES
Tag recovery information			NO
Tag release information			NO
<b>INTERACTION WITH VESSEL OR GEAR ONLY</b>			
Vessel's activity during interaction			NO
Condition observed at start of interaction			NO
Condition observed at end of interaction			NO
Description of interaction			NO
Number of animals sighted			NO

WCPFC ROP MINIMUM STANDARD DATA FIELD	DESCRIPTION	NOTES ON EM PROTOCOL	PROPOSED EM DATA FIELD
<b>EM TRIP MONITORING SUMMARY</b> (Did the vessel ....)			
Was an observer onboard the vessel		YES/NO	YES
Inaccurately record vessel positions on vessel log sheet for sets, hauling and catch; (Yes No)		EM programs could use EM data to verify ER data	NO
Inaccurately record retained 'Target Species' in the vessel logs; (Yes No)		EM programs could use EM data to verify ER	NO
Inaccurately record 'Target Species' discards; (Yes No)		EM programs could use EM data to verify ER	NO
Inaccurately record retained By catch species ( Yes No)		EM programs could use EM data to verify ER	NO
Inaccurately record By-catch species discards; (Yes No)		EM programs could use EM data to verify ER	NO
record species inaccurately (Yes No)		EM programs could use EM data to verify ER	NO
Interact with a non-target species		Could be automatically populated from EM data	YES
high grade the catch; (Yes No)		EM programs could use EM data to verify ER	NO
Fail to comply with any Commission Conservation and Management measure; (Yes No)		YES/NO (details if YES)	YES
fish in areas where it is not permitted to fish; (Yes No)		This can be addressed using VMS	NO
fail to report vessel position to countries, where required, when entering and leaving an EEZ (crossing to or from an EEZ into or out of the High Seas (Yes No)			NO
transfer or tranship fish from, or to,			YES

another vessel (Yes No)			
request that an event not be reported by the observer; (Yes No)			NO
Did the operator or any crew assault, obstruct, resist, delay, refuse boarding to, intimidate or interfere with observers in the performance of their duties (Yes No)			NO
Did the operator fail to provide the observer, while on board the vessel, at no expense to the observer or the observer's government, with food, accommodation and medical facilities of a reasonable standard equivalent to those normally available and medical facilities of a reasonable standard equivalent to those normally available to an officer on board the vessel .(Yes No)			NO
use a fishing method other than the method the vessel was designed or licensed; (Yes No)			NO
lose any fishing gear; (Yes No)		YES/NO, 'Could not determine' based on camera placement	YES
abandon any gear; (Yes No)		YES/NO, 'Could not determine' based on camera placement	YES
dispose of any metals, plastics, old fishing gear or chemicals;(Yes No)		YES/NO, 'Could not determine' based on camera placement	YES
discharge any oil; (Yes No)		YES/NO, 'Could not determine' based on camera placement	YES
fail to stow fishing gear when entering areas where they were not authorized to fish; (Yes No)			NO



## Appendix 4: Interim WCPFC EM program reporting requirements

CCMs SHALL report the presence of an EM system in the submission of vessel details to the WCPFC Record of Fishing Vessel.<sup>7</sup>

Any CCM using EM and submitting EM data to meet WCPFC requirements MUST provide the following reporting in their Annual Report Part 1<sup>8</sup>:

### Description of the EM program

EM program component	Explanatory notes
Attestation	<i>EITHER</i> a confirmation that the EM program and EM system meets all the MUST requirements in the EM Standards <i>OR</i> a description of those components that do not and the intended steps to achieve the requirement in the EM Standards.
Vessel monitoring plans	Examples of the Vessel monitoring plans used in the program to be provided. Would show where camera number and placement differ across vessels in the program (e.g. different sized vessels or vessels fishing in different parts of the Convention Area where different camera configurations are required to achieve the monitoring objectives).
Vessel owner / crew responsibilities	A description of the obligations on the vessel owner/operator with respect to the EM system and program, e.g., cleaning or maintenance and how to respond to mechanical or technical failures of the EM system.
EM record transmission / retrieval	Description of how EM records are retrieved from the EM system.
WCPFC CMM procedures	If applicable, any specific features of the EM system and EM program put in place to monitor the implementation of, and compliance with, obligations under a WCPFC CMM.

<sup>7</sup> An amendment to the CMM 2022-05 Standards, specifications and procedures for the WCPFC RFV would be required to support implementation.

<sup>8</sup> For any CCM that **voluntarily** chooses to use EM for WCPFC fisheries and submits EM data to support the work of the Commission, it is recommended that this information be provided to allow the necessary context for the use of any EM data.

**Description of the implementation of the EM program**

<b>EM program component</b>	<b>Explanatory notes</b>
EM coverage levels	By year: EM coverage in terms of both vessel numbers (number and proportion of vessels with operating EM systems) AND Total fishing effort (number and proportion of fishing events for which EM records were collected)
EM analysis rates	By year: EM analysis rate expressed as a proportion of EM coverage for fishing events (i.e., proportion of EM records reviewed to generate EM data).
EM data submission summary	By year: Summary of key data included in the EM data submission, e.g., number of captures of species of special interest, number of size measurements.
EM data quality and review summary	Summary of observations where issues, which impacted the quality of the EM data, were noted by EM analysts e.g., technical, mechanical, specific circumstances and/or catch handling.

ATTACHMENT 18: ERandEM WG Workplan

Adopted future workplan for the ER and EM IWG

Task	Working approach	Timing	Date to WCPFC
Review and/or develop templates for Part 1 EM program reporting and other parts of the EM standards where standardized reporting would be of value to members.	EREMIWG with SC and TCC review	2025-2026	WCPFC23 (Dec 25)
Advice on potential changes to the interim EM standards to <b>improve harmonization</b> across RFMOs (based on outcomes of the ABNJ Tuna II “ <i>Electronic Monitoring Tuna RFMO Minimum Standards Harmonization Workshop</i> ” to be held in Dec-2024)	EREMIWG with SC and TCC review	2025-2026	WCPFC23 (Dec 25)
Review EM data requirements based on relevant CMM requirements not already covered in the ROP minimum data fields	EREMIWG and <b>ROP IWG</b> with SC and TCC review	2025-2026	WCPFC23 (Dec 25)
Develop a proposed <b>assurance / audit process for EM standards</b> for longlining based on ROP audit model	EREMIWG / <b>WCPFC-Secretariat</b> with SC and TCC review	2025	<b>TBC</b>
Initiate work on <b>EM standards for carrier vessels</b> conducting transshipment for longline vessels.	EREMIWG and <b>TS IWG</b> with SC and TCC review	2025	<b>TBC</b>



**FADMO-IWG Workplan 2024 – 2026<sup>1</sup>**

<b>Timeline</b>	<b>Activities</b>	<b>Responsibility</b>
January – February 2024 and 2025	<ul style="list-style-type: none"> <li>Identify priority tasks for 2024 and 2025 as instructed by the Commission.</li> <li>Send circular to CCMs and Observers to gather comments on the draft FADMO-IWG Workplan prepared by the FADMO-IWG Chair including updating of FADMO-IWG members' contact list</li> </ul>	FADMO-IWG Chair, Secretariat
March 2024 - December 2026  July 2024 – December 2024  July 2025 – December 2025	<p><b>I. Satellite Buoy Data Transmission Requirements</b></p> <ul style="list-style-type: none"> <li>Consider requirements for the transmission of satellite buoy data from drifting FADs in 2024 to promote effective and sustainable FAD management in the WCPFC (<i>paragraph 56, WCPFC20 Outcomes Document</i>)</li> <li>Prepare document for consideration of SC20, TCC20 and Commission including items II to V</li> <li>Prepare document for consideration of SC21, TCC21 and Commission including items II to VI</li> </ul>	FADMO-IWG, SC, TCC, Commission
March 2024 - December 2026	<p><b>II. FAD Recovery Programs/Strategies</b></p> <ul style="list-style-type: none"> <li>Consider ways to implement FAD recovery programs/strategies, including economic aspects and standards required for programs to be effective (<i>paragraph 52, WCPFC20 Outcomes Document</i>)</li> </ul>	FADMO-IWG, SC, TCC, Commission
March 2024 – December 2026	<p><b>III. FAD logbook<sup>2</sup></b></p> <p>Consider relevant information/materials to develop the WCPFC FAD logbook for vessel</p>	FADMO-IWG, SC, TCC, Commission

<sup>1</sup> The timeline and activities of the workplan will be updated taking into consideration the FADMO-IWG progress and Commission's tasking to the IWG after its annual meeting (e.g. WCPFC21).

<sup>2</sup> PNA+TK suggestion that the FADMO-IWG meet physically no later than 2025 but preferably in 2024.

	operators ( <i>paragraph 53c, WCPFC20 Outcomes Document</i> )	
March 2024 - December 2026	<p><b>IV. Biodegradable FADs</b></p> <ul style="list-style-type: none"> <li>Consider ways for the implementation of the stepwise introduction of bio-degradable dFADs (<i>paragraph 53a, WCPFC20 Outcomes Document</i>)</li> </ul>	FADMO-IWG, SC, TCC, Commission
March 2024 - December 2026	<p><b>V. dFAD Deployment<sup>3</sup></b></p> <ul style="list-style-type: none"> <li>Provide advice to WCPFC23 on the effectiveness of the limit on the number of dFADs deployed as set in paragraph [21] of the CMM 2023-01 (<i>paragraph 53b, WCPFC20 Outcomes Document</i>)</li> </ul>	FADMO-IWG, SC, TCC, Commission
March 2025 - October 2025	<p><b>VI. Types of Vessels Allowed to Engage in FAD-related Activities</b></p> <ul style="list-style-type: none"> <li><i>The Commission tasks FAD Management Options IWG and TCC21 to consider clarifying the ambiguity around the existing participatory rights text as to which types of vessels should be allowed to engage in FAD-related activities and provide recommendations to WCPFC22.</i></li> </ul>	FADMO-IWG, TCC, Commission
September 2025	<b>VII. Physical Meeting</b>	FADMO-IWG

Reference: Progress of the FAD Management Options IWG on Priority Tasks and Discussions for 2024 ([WCPFC21-2024-19](#))

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<sup>3</sup> PNA+TK proposal to ensure that all drifting FAD Buoys were activated and transmitting position data when in the waters of the WCPFC Convention Area.



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**CONSERVATION AND MANAGEMENT MEASURE FOR CREW LABOUR STANDARDS**

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**Conservation and Management Measure 2024-04**

*The Western and Central Pacific Fisheries Commission (WCPFC):*

**Concerned** about occurrences of poor labour conditions for crew members onboard fishing vessels, forced or compulsory labour, and other forms of human trafficking, such as servitude, bonded labour, the worst forms of child labour and other human rights abuses;

**Recalling** the importance of respect for and protection of human rights, as set out in the Universal Declaration of Human Rights 1948, and enshrined in the International Covenants on Civil and Political Rights and Economic, Social, and Cultural Rights of 1966;

**Recalling** Articles 6 and 8 of the 1995 FAO Code of Conduct for Responsible Fisheries which set out international standards, including for the responsible conduct of fishing activities to allow for safe, healthy and fair working and living conditions;

**Further Recalling** Articles 6 and 8 of the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication;

**Further Recalling** the United Nations Declaration on the Rights of Indigenous Peoples and the right not to be subjected to any discriminatory conditions of labour;

**Further Recognizing** the obligations in the United Nations Convention on the Law of the Sea (UNCLOS) relating to the duties of the flag State to ensure safety at sea, including through the manning of ships, labour conditions and the training of crews, to render assistance, and to ensure effective protection of human life and to cause an inquiry into any loss of life or serious injury to nationals of another State which has been caused by a marine casualty or incident of navigation.

**Noting** the ILO Declaration on Fundamental Principles and Rights at Work (1998, amended 2022) and the ILO C188 Work in Fishing Convention (2007) and its objective to ensure that fishers have decent conditions of work on board fishing vessels with regard to minimum requirements for work on board, conditions of service, accommodation and food, occupational safety and health protection, medical care and social security;

**Recalling** Article 32 of the Convention on the Rights of the Child, which requires State parties to recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's

education, or to be harmful to the child’s health or physical, mental, spiritual, moral or social development;

**Noting** the 1995 International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel which promotes safety at sea for the crews of fishing vessels by setting certification and minimum training standards.

**Noting** the Cape Town Agreement of 2012 on the Implementation of the Provisions of the Torremolinos Protocol of 1993 Relating to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977 which sets minimum safety requirements for fishing vessels of 24 metres in length.

**Noting** the guidance on death at sea, including burial at sea, set out in the International Medical Guide for Ships.

**Acknowledging** the important role played by crew members and observers in assisting the conduct of fishing vessel operations in compliance with WCPFC Conservation and Management Measures, and the essential role that crew members and observers play in contributing to effective fishing operations;

**Recalling** efforts that CCMs have made in recent years in improving the conditions and welfare of observers on board fishing vessels, including the adoption of CMM 2017-03, “Conservation and Management Measures for the Protection of WCPFC Regional Observer Programme Observers,” and acknowledging the equal importance of the welfare of crew members;

**Recalling** Article 23 (5) of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (the Convention), which requires each member of the Commission, to the greatest extent possible, at the request of any other member, and when provided with the relevant information, to investigate any alleged violation by its nationals, or fishing vessels owned or controlled by its nationals, of the provisions of this Convention or any conservation and management measure adopted by the Commission.

**Recognising** that Pacific Island Forum Fisheries Agency (FFA) members have adopted Harmonised Minimum Terms and Conditions for Access by Fishing Vessels, which include crew employment conditions on fishing vessels licensed to fish in their Exclusive Economic Zones;

**Mindful** that CCMs have a legitimate interest in increasing the participation of their labour force in the crewing of vessels that catch highly migratory fish stocks in their waters in the Convention area, and that CCMs are interested in promoting safe and decent employment conditions for their national and non-national crews;

**Recalling** Resolution 2018-01, Labour Standards for Crew on Fishing Vessels, adopted by WCPFC which encouraged CCMs to implement measures, consistent with generally accepted international minimum standards for crew on fishing vessels, where applicable, to ensure

fair working conditions on board for all crew working on fishing vessels flying their flag and operating within the Convention area;

**Adopts** the following conservation and management measure in accordance with Article 10 of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean:

### **Area of Application**

1. This measure shall apply to the following categories of fishing vessels authorized to fish in the Convention Area:
  - a. vessels fishing exclusively on the high seas in the Convention Area; and
  - b. vessels fishing on the high seas and in coastal State EEZs; and
  - c. vessels fishing in the EEZs of two or more coastal States.
2. Nothing in this measure shall prejudice the rights of relevant CCMs to enforce their laws with respect to the safety of crew consistent with international law.<sup>1</sup>
3. When the flag CCM of a fishing vessel, whose owner/operator uses a crew provider<sup>2</sup> from another CCM to source crew, through the WCPFC Secretariat requests the CCM of the crew provider, the CCM shall provide information to the WCPFC Secretariat annually on crew providers. The information shall include at a minimum the name, location and contact details of the crew provider. The Secretariat shall make the information available to all CCMs.
4. CCMs shall ensure that owners and/or operators of fishing vessels covered by this measure, as specified in paragraph 1, liaise with any crew providers in order to effectively implement all requirements set out in this measure.
5. In addition to the requirements of this Measure, CCMs are encouraged to make every effort to have relevant national legislation which fully extends to all crew\*<sup>3</sup> members working on fishing vessels flying their flag in the areas set out in paragraph 1.
6. CCMs may adopt legally binding mechanisms, such as licensing conditions, for vessels fishing solely within its exclusive economic zone.

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<sup>1</sup> It is understood that this CMM does not apply to territorial seas or archipelagic waters.

<sup>2</sup> **Crew provider** means any person, company, institution, agency or other organisation, in the public or the private sector, which is engaged in recruiting fishers on behalf of, or placing fishers with, fishing vessel owners.

<sup>3</sup> **Crew** includes persons of any age on board a fishing vessel.



## Minimum Working Conditions on Board Fishing Vessels

7. CCMs shall ensure that owners and/or operators of fishing vessels covered by this measure, as specified in paragraph 1:
- a. Provide crew members a safe working environment where the welfare, occupational safety and health of crews is effectively protected.
  - b. Ensure there is no forced or compulsory labour and other mistreatment on fishing vessels.
  - c. Provide terms of employment, that are set out in a written contract or agreement, in a form and language that facilitates the crew member's understanding of the terms, is agreed by the crew member prior to departure on the fishing trip, and signed by both the crew member and the owner and/or operator (or, where crew members are not employed or engaged by the fishing vessel owner and/or operator, the fishing vessel owner and/or operator shall have evidence of contractual or similar arrangements). The written contract or agreement shall be made available to the crew member and, upon request, authorised officers, in accordance with national law and practice. A CCM may allow the owner and/or operator to use the particulars in Attachment 1 as a guideline for crew contracts or agreements.
  - d. Provide crew members decent working and living conditions on board fishing vessels, including access to clean or potable freshwater and food,<sup>4</sup> occupational safety and health protection, medical care, rest periods and sleeping quarters, and conditions that facilitate minimum standards of health and hygiene;
  - e. Provide crew members, in accordance with the flag CCM's standards or regulations, with decent and regular remuneration (for example monthly or quarterly) that is accessible by crew as well as appropriate insurance for the crew;
  - f. Provide crew members regular opportunity to disembark consistent with laws of the flag CCM, unfettered access to their identity documents, ability to terminate the contract of employment and seek repatriation, and unmonitored access to communication devices to seek assistance.
  - g. Cover costs of repatriation where the early termination of a contract is sought by the owner and/or operator, except where the crew member has been found, in accordance with a CCM's regulations, to be in breach of contract.<sup>5</sup>

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<sup>4</sup> Food must be in a quantity and quality sufficient to satisfy the dietary needs of individuals, free from adverse substances, and acceptable within a given culture.

<sup>5</sup> The term "**breach of contract**" means a crew member's intentional and serious violation of their contract, such as illegal activities, that justify a dismissal under a flag CCM's regulations.

8. CCMs shall ensure that owners and/or operators of fishing vessels covered by this measure:
- a. Carry aboard a record of the provided contact details of each crew member's next of kin or designated contact person; and
  - b. Provide safety training and/or instruction for all the crew members working on board the vessel, with consideration given to relevant international guidelines and standards for training of crew members.

**In the Event of a Crew Member's Death**

9. In the event a crew member dies, the flag CCM shall inform the Secretariat as soon as practicable, and ensure that the owner and/or operators of the fishing vessel:
- a. ceases fishing operations as soon as practicable;
  - b. immediately notifies the flag CCM and the crew member's next of kin or designated contact person;
  - c. cooperates fully in all official investigations, and preserves any potential evidence and the personal effects and, if not needed by other crew, the quarters of the deceased crew member;
  - d. returns to port if required by the flag CCM for the official investigation and departs only when clearance is received from the flag CCM authorities; and
  - e. preserves the body for the purposes of an autopsy, investigation, and/or repatriation. Bodies of deceased crew should not be buried at sea or disposed of in any other manner unless specifically authorized by the flag CCM's national regulation, or next of kin.

**In the Event a Crew Member Suffers Serious Illness or Injury**

10. As the health and safety of the crew is paramount, in the event a crew member suffers from a serious illness or injury that threatens his or her health or safety, the flag CCM shall ensure that the owner and/or operators of the fishing vessel:
- a. ceases fishing operations as soon as practicable and takes all reasonable actions to care for the crew member and provide any medical treatment available and possible on board the vessel;.
  - b. immediately notifies the flag CCM;
  - c. where directed by the flag CCM, facilitates the disembarkation and transport of the crew member to a medical facility equipped to provide the required care, as soon as practicable; and
  - d. cooperates fully in any and all official investigations into the cause of the illness or injury.

### **In the Event a Crew Member is Missing or Fallen Overboard**

11. In the event that a crew member is missing or presumed fallen overboard, the flag CCM shall ensure that the owner and/or operator of the fishing vessel:

- a. ceases fishing operations as soon as practicable;
- b. immediately notifies the responsible Rescue Coordination Center (RCC) to report the incident time and location and commences search and rescue for at least 72 hours unless the crew member is found sooner, or unless instructed by the flag CCM to continue searching;<sup>6</sup>
- c. immediately notifies the flag CCM and notifies the crew member's next of kin or designated contact person as soon as practicable after the search and rescue operation has ceased;
- d. immediately alerts other vessels in the vicinity regarding the status of the crew member by using all available means of communication;
- e. cooperates fully in any search and rescue operation;
- f. provides a report about the incident to the appropriate authorities of the flag CCM and other appropriate authorities on the incident if requested;
- g. cooperates fully in all official investigations, and preserves any potential evidence and the personal effects and, if not needed by other crew, the quarters of the missing crew member; and
- h. returns to port if required by the flag CCM for the official investigation and departs only when clearance is received from the flag CCM authorities.

### **In the Event of Forced or Compulsory Labour and Other Mistreatment**

12. In the event that a flag CCM has reasonable grounds to believe, based on information such as port state notifications, electronic monitoring, observer reports, high seas boarding inspection reports or information provided by a crew member, that a crew member's health and safety is endangered or that a crew member has been subject to forced or compulsory labour and other mistreatment, the flag CCM shall ensure that the owner and/or operator of the fishing vessel:

- a. immediately takes action to preserve the safety of the crew member and mitigate and resolve the situation on board;
- b. immediately provides the flag CCM's designated authorities with a report on the situation, remedies provided, including the status and location of the crew member, as soon as possible;
- c. facilitates the safe disembarkation of the crew member in a manner and place, as agreed by the flag CCM and crew member, including access to any needed medical treatment at the expense of the owner and/or operator; and

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<sup>6</sup> In the event of force majeure, flag CCMs may allow their vessels to cease search and rescue operations before 72 hours have elapsed.

- d. cooperates fully in any and all official investigations into the incident, including by providing independent and individual access to all crew members remaining on the vessel.

13. In the event that, after disembarkation from a fishing vessel, a crew member reports to the port CCM an allegation of forced or compulsory labour and other mistreatment while on board the fishing vessel, including providing any available supporting information, the port CCM shall notify, in writing, the flag CCM and the Secretariat. Upon notification, the flag CCM in accordance with Article 25 of the Convention, shall:

- a. investigate the allegations, including through information provided by the crew member (and crew provider where relevant), port CCM, and crew on the fishing vessel and take any appropriate action in response to the results of the investigation; and
- b. cooperate fully in any other investigation conducted, including providing the flag CCM's investigation report to the crew provider and port CCM.

14. In the event a port CCM is notified by a flag CCM that a crew member may have experienced forced or compulsory labour and other mistreatment, the port CCM shall facilitate entry to port of the fishing vessel to allow disembarkation of the crew member to the extent possible under national law and assist in any investigations if so requested by the flag CCM.

15. CCMs shall cooperate and provide support in relation to cases of forced or compulsory labour and other mistreatment on fishing vessels, including facilitating evidence gathering from crew providers in their jurisdiction or from their nationals, where possible.

### **Special Requirements of Developing States**

16. To implement this Measure, developed CCMs are encouraged to make efforts and consider options to assist developing CCMs, both flag CCMs and coastal CCMs, including working with local industries (which includes crew providers) to help them meet the standards in this Measure.

### **Reporting**

17. Within one month after the entry into force of this measure, CCMs shall inform the Secretariat of its designated contact point(s) in connection with the implementation of this measure.

18. CCMs shall advise the Commission (in Part 2 of their Annual Report) on implementation of this Measure, including for flag CCMs to report on the implementation of obligations in the event that a crew member dies (paragraph 9); suffers serious illness or injury (paragraph 10); is missing or fallen overboard (paragraph 11); there are allegations of forced or compulsory labour or other mistreatment (paragraph 12 & 13); and for port CCMs to report on the implementation of obligations if they are notified of allegations of forced or compulsory labour or other mistreatment (paragraph 13 & 14).

19. This measure will take effect on 1 January, 2028 and CCMs are encouraged to implement these measures as soon as possible.

## **Attachment 1: Particulars that may be included in a Crew Agreement**

1. The crew's family name and other names, date of birth or age, and birthplace.
2. The place at which and date on which the agreement was concluded.
3. The details of the crew member's next of kin or designated contact person in the event of an emergency.
4. The name of the fishing vessel or vessels and the registration number of the vessel or vessels on board which the crew undertakes to work. If the crew member changes vessels, this should be updated by the vessel owner and/or operator in the written contract or agreement with the crew member.
5. The name and address of the vessel owner and/or operator, or other party to the agreement with the crew member.
6. Starting date and duration of contract.
7. The voyage or voyages to be undertaken, if this can be determined at the time of making the agreement.
8. The capacity in which the crew is to be employed or engaged.
9. If possible, the place at which and date on which the crew member is required to report on board for service. This should include details of the carrier delivering the crew member to the fishing vessel, if the crew member boards the fishing vessel at sea.
10. The provisions to be supplied to the crew, any in-kind payments of a limited proportion of the remuneration, the amount of wages, or the amount of the share and the method of calculating such share if remuneration is to be on a share basis, or the amount of the wage and share and the method of calculating the latter if remuneration is to be on a combined basis, and any agreed minimum wage, and periodicity and form of payments.
11. The termination of the agreement and the conditions thereof, namely:
  - a. if the agreement has been made for a definite period, the date fixed for its expiry, unless agreed by mutual consensus;
  - b. if the agreement has been made for a voyage, the port of destination and the time which has to expire after arrival before the crew shall be discharged; and
  - c. if the agreement has been made for an indefinite period, the conditions which shall entitle either party to rescind it, as well as the required period of notice for rescission, provided that such period shall not be less for fishing vessel owner and/or operator or other party to the agreement with the crew member.
12. The right of termination by the crew member in the event of forced or compulsory labour and other mistreatment, and to clearly account for deductions made against the crew member's wages for any in-kind contributions.

13. The protection that will cover the crew member in the event of forced or compulsory labour and other mistreatment, sickness, injury or death in connection with service.
14. The amount of paid annual leave or the formula used for calculating leave, where applicable.
15. The health and social benefits coverage and benefits to be provided to the crew member by the fishing vessel owner and/or operator, or other party or parties to the crew member's work agreement, as applicable.
16. The crew member's entitlement to repatriation and terms of repatriation.
17. Information on crew members' rights and access to complaint or dispute mechanisms and legal support.
18. The minimum periods of rest, in accordance with national laws, regulation or other measures.
19. Full protection of the health and safety and morals of young crew members, including ensuring young crew members have received adequate specific instruction or vocational training and have completed basic pre-sea safety training.

## Attachment 2: Definitions

**Forced or compulsory labour** is all work or service which is exacted from any person under the threat of a penalty and for which the person has not offered himself or herself voluntarily. [ILO CO29 on Forced Labour Convention C029 - Forced Labour Convention, 1930 (No. 29) (ilo.org) ]

### **Indicators of forced or compulsory labour**

- Abuse of vulnerability - taking advantage of a worker's vulnerable position.
- Deception - failure to deliver what has been promised to the worker, either verbally or in writing.
- Restriction of movement.
- Isolation – denying a worker contact with the outside world.
- Physical and sexual violence.
- Intimidation and threats.
- Retention of identity documents.
- Withholding of wages.
- Debt bondage.
- Abusive working and living conditions.
- Excessive overtime.

The existence of **forced or compulsory labour** may be evidenced by the presence of a single indicator, or several indicators taken together, in a given situation. Overall, the set of eleven indicators covers the main possible elements of a forced labour situation, and hence provides the basis to assess whether or not an individual worker is a victim of this crime.

[ILO indicators of Forced Labour | International Labour Organization](#)

**Mistreatment** is the failure to provide crew members a safe working environment where the welfare, occupational safety and health of crews is effectively protected. This includes the failure to provide crew members with decent working and living conditions on board fishing vessels.





**UPDATED SOUTH PACIFIC ALBACORE ROADMAP IWG WORKPLAN 2023-2026**

**Submitted by the SPA-RM-IWG Chair**

**Purpose**

1. To define the responsibilities of the SPA Roadmap Inter Sessional Working Group (IWG) in progressing key issues on the management of the South Pacific albacore.

**Terms of Reference**

1. The terms of reference for the workgroup shall include consideration of the management issues:
  - a) Elements necessary for a pathway to support the development of the SPA management procedure, including the revision of the management objective and the iTRP.
  - b) Elements necessary for establishing an allocation framework.
  - c) Elements for developing a new conservation and management measure.
2. The roadmap will also contain(s) three main components:
  - a) Development of the SPA Management Procedure.
  - b) Allocation Framework: Develop recommendations for a framework on how the Commission allocates the overall limit for South Pacific Albacore, taking into consideration all fisheries, the interests and aspirations of SIDs and Participating Territories and the impacts of Climate Change and the actions required to achieve the biological and economic objectives of the fishery.
  - c) Development of a new CMM.

**Workplan:**

This workplan addresses the main components identified through the TOR above. It is intended to be a working document that will be revised by the IWG as work progresses. \*Considering the margins of the SC and/or TCC meetings for the IWG to meet; and the SMD type meeting to be a virtual meeting.

	<b>Support the development and adoption of the Management Procedure</b>	<b>Establishing a framework for the allocation of the SPA TAC</b>	<b>Development of a new implementing CMM</b>
<b>Objectives</b>	<ul style="list-style-type: none"> <li>- The IWG will progress the discussions on a management objective and the revision of the iTRP.</li> <li>- Progress the discussions and make recommendations on a</li> </ul>	<ul style="list-style-type: none"> <li>- The IWG to identify and develop recommendations on key components and a process for establishing an allocation framework.</li> </ul>	<ul style="list-style-type: none"> <li>- To develop a new measure that incorporates the allocation framework, as well as any other issues identified by the IWG, that will function as an implementing mechanism</li> </ul>

	management procedure for the SPA for the Commission to consider		for the management procedure.
<b>2023</b>	<ul style="list-style-type: none"> <li>- To consider the South Pacific albacore (SPA) objectives and a revised interim TRP and recommendations for WCFPC20 to consider.</li> <li>- Ongoing development of the SPA management procedure and testing for the IWG to progress the discussions on the SPA MP development and provide guidance in the margins of the SC19 and/or TCC19.</li> </ul>	<ul style="list-style-type: none"> <li>- To consider key issues, principles and developments, required to be considered in the development of the allocation framework for the Commission to consider, in particular Article 10.3 of the Convention.</li> <li>- Report to the Commission on the progress of the work by the IWG.</li> </ul>	<ul style="list-style-type: none"> <li>- Take note of discussions/progress from the MP and the SPA Allocation framework developments, as well as other relevant considerations (including guidance from SC and TCC) to identify management measure implications to be addressed.</li> </ul>
<b>2024</b>	<ul style="list-style-type: none"> <li>- Ongoing SPA Management Procedure development and testing and 'dry run' of MP application.</li> <li>- A Science management dialogue dedicated to SPA focused on selecting candidate MPs for potential adoption).</li> <li>- Recommend to the Commission to adopt a SPA management procedure.</li> <li>- Development of a CMM for a Management Procedure for SPA for adoption by WCPFC21</li> </ul>	<ul style="list-style-type: none"> <li>- Depending on outcomes from 2023, the IWG to consider recommending the start of the allocation process discussion. Potential physical workshop for allocation to be considered.</li> </ul>	<ul style="list-style-type: none"> <li>- Take note of discussions/progress from the MP and the SPA allocation framework development, as well as other relevant considerations (including guidance from SC and TCC) to identify key elements for a revised CMM for the SPA</li> </ul>
<b>2025</b>	<ul style="list-style-type: none"> <li>- Adoption of a Management Procedure CMM for the SPA by WCPFC22.</li> <li>- Adopted management procedure is <u>run</u> for the first time.</li> </ul>	<ul style="list-style-type: none"> <li>- The Commission will hold a workshop, or workshops, dedicated to the management procedure, implementing arrangements, mixed fisheries issues as well as allocation of SPA if appropriate.</li> <li>- Advice provided by SC21 and TCC21 on implementing CMM as appropriate.</li> <li>- Take note of discussions/progress on the MP, as well as other relevant considerations (including guidance from SC and TCC) to identify key elements for a new implementing CMM for SPA.</li> </ul>	
<b>2026</b>	<ul style="list-style-type: none"> <li>- Implementation of the Management Procedure would commence in 2026 and run in a three-year cycle (2026-2028)</li> </ul>		




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## CONSERVATION AND MANAGEMENT MEASURE FOR SHARKS

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### Conservation and Management Measure 2024-05

*The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC), in accordance with the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (the Convention);*

**Recognizing** *the economic and cultural importance of sharks in the western and central Pacific Ocean (WCPFO), the biological importance of sharks in the marine ecosystem as key predatory species, the vulnerability of certain shark species to fishing pressure, and the need for measures to promote the long-term conservation, management and sustainable use of shark populations and fisheries;*

**Recognizing** *the need to collect data on catch, effort, discards, and trade, as well as information on the biological parameters of many species, to enable effective shark conservation and management;*

**Recognizing** *further that certain species of sharks and rays, such as basking shark and great white shark, have been listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).*

**Adopts**, *in accordance with Article 5, 6 and 10 of the Convention, that:*

#### I. Definitions

1. (1) Sharks: All species of sharks, skates, rays and chimaeras (Class Chondrichthyes)
- (2) Full utilization: Retention by the fishing vessel of all parts of the shark excepting head, guts, vertebrae and skins, to the point of first landing or transshipment
- (3) Finning: Removing and retaining all or some of a shark's fins and discarding its carcass at sea

#### II. Objective and Scope

2. The objective of this Conservation and Management Measure (CMM) is, through the application of the precautionary approach and an ecosystem approach to fisheries management, to ensure the long-term conservation and sustainable use of sharks.
3. This CMM shall apply to: (i) sharks listed in Annex 1 of the 1982 Convention and (ii) any other sharks caught in association with fisheries managed under the WCPF Convention.
4. This measure shall apply to the high seas and exclusive economic zones of the Convention Area.
5. Nothing in this measure shall prejudice the sovereignty and sovereign rights of coastal States, including for traditional fishing activities and the rights of traditional fishers, to apply alternative measures for the purpose of exploring, exploiting, conserving and managing sharks, including any national plan of action for the conservation and management of sharks, within areas under

their national jurisdiction. When Commission Members, Cooperating Non-Members, and Participating Territories (CCMs) apply alternative measures, the CCMs shall annually provide to the Commission, in their Part 2 Annual Report, a description of the measures.

### **III. FAO International Plan of Action for the Conservation and Management of sharks**

6. CCMs should implement, as appropriate, the FAO International Plan of Action for the Conservation and Management of Sharks (IPOA). For implementation of the IPOA, each CCM should, as appropriate, include its National Plan of Action for sharks in Part 2 Annual Report.

### **IV. Full utilization of shark and prohibition of finning**

7. CCMs shall take measures necessary to require that all sharks retained on board their vessels are fully utilized. CCMs shall ensure that the practice of finning is prohibited.
8. In order to implement the obligation in paragraph 7, in 2025, 2026, and 2027, CCMs shall require their vessels to land sharks with fins naturally attached to the carcass.
9. Notwithstanding paragraph 8, in 2025, 2026, and 2027, CCMs may authorize their vessels to implement one of the alternative measures listed below to comply with paragraph 7<sup>1</sup>. CCMs shall implement enhanced monitoring efforts on its vessels authorized to implement the alternatives.

To ensure that individual shark carcasses and their corresponding fins can be easily identified by inspectors on board the vessel at any time, these alternatives shall be applied before sharks are stored in fish holds as soon as possible.

- (1) Each individual shark carcass is bound to the corresponding fins using rope or wire; or
- (2) Identical and uniquely numbered tags are attached to each shark carcass and its corresponding fins in a manner that inspectors can easily identify the matching of the carcass and fins at any time. Both the carcasses and fins shall be stored on board in the same hold.

10. All CCMs shall include in their Part 2 Annual Report, using the template provided in Annex 2, information on the implementation of the measures in paragraphs 8 and 9 as applicable, including 1) how authorized vessels have enhanced their monitoring efforts; 2) how many vessels used the alternative measures in the previous year; 3) how compliance is enforced at sea and in port, including how possible incidents of disproportionate fin counts, high grading and species substitution have been addressed; 4) an explanation of why the fleet has adopted its fin-handling practice and 5) any other information TCC might deem necessary.
11. CCMs shall provide information to TCC on any enforcement difficulties encountered in the case of the alternative measures, from observer, electronic monitoring, aerial, boarding, and landing inspection reports.
12. The Secretariat shall compile the information provided by CCMs with respect to paragraphs 10 and 11 each year and make it available to TCC.
13. The TCC shall review and discuss the reports submitted in accordance with Paragraphs 10 and 11 in 2025, 2026, and 2027. TCC23 shall, taking into account, the outcomes from these reports and

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<sup>1</sup> Until July 1 2025, CCMs may use the following alternative: each individual shark carcass and its corresponding fins are stored in the same bag, preferably biodegradable one.

discussions, advise the Commission on the effectiveness of the measures set out in paragraph 9 as alternatives to the obligation contained in paragraph 7 and recommend measures for consideration and possible adoption at the 2027 annual meeting of the Commission. If, in 2025, 2026, or 2027, a CCM who used the alternative measures does not provide information in accordance with paragraph 10 to ensure the effectiveness of the alternative measures set out in paragraph 9, paragraph 9 will expire in 2027 for that CCM.

14. CCMs shall take measures necessary to prevent their fishing vessels from retaining on board (including for crew consumption), transshipping, and landing any fins harvested in contravention of this CMM.
15. CCMs shall take measures necessary to ensure that both carcasses and their corresponding fins are landed or transhipped together, in a manner that allows inspectors to verify the correspondence between an individual carcass and its fins when they are landed or transhipped.

#### **V. Minimizing bycatch and practicing safe release**

16. For longline fisheries targeting tuna and billfish, CCMs shall ensure that their vessels comply with at least one of the following options:
  - (1) do not use or carry wire trace as branch lines or leaders; or
  - (2) do not use branch lines running directly off the longline floats or drop lines, known as shark lines. See Annex 1 for a schematic diagram of a shark line.
17. The implementation of the measures contained in paragraph 14 above shall be on a vessel by vessel or CCM basis. Each CCM shall notify the Commission of its implementation of paragraph 14 by March 31, 2021 and thereafter whenever the selected option is changed.
18. Starting on January 1, 2024, between 20 N and 20 S, CCMs shall ensure that their longline vessels targeting tuna and billfish do not use, or if carrying, must stow wire trace as branch lines or leaders and do not use shark lines or branch lines running directly off of the longline floats or drop lines (see Annex 1 for schematic diagram of a shark line).
19. For longline fisheries targeting sharks, CCMs shall develop and report their management plans in their Part 2 Annual Report.
20. The Commission shall adopt and enhance bycatch mitigation measures and develop new or amend, if necessary, existing Shark Safe Release Guidelines<sup>2</sup> to maximize the survival of sharks that are caught and are not to be retained. Where sharks are unwanted bycatch they should be released alive using techniques that result in minimal harm, taking into account the safety of the crew. CCMs should encourage their fishing vessels to use any Commission adopted guidelines for the safe release and handling of sharks.
21. CCMs shall ensure that sharks that are caught and are not to be retained, are hauled alongside the vessel before being cut free in order to facilitate a species identification. This requirement shall only apply when an observer or electronic monitoring camera is present, and should only be implemented taking into consideration the safety of the crew and observer.

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<sup>2</sup> The Commission adopted at WCPFC15 Best Handling Practices for the Safe Release of Sharks (other than Whale Sharks and Mantas/Mobulids)

22. Beginning on January 1, 2024, for sharks that are caught by longline vessels and are not retained, CCMs shall require their fishing vessels to release these sharks, as soon as possible, taking into consideration the safety of the crew and observer, using the following guidelines:
  - (1) Leave the shark in the water, where possible; and
  - (2) Use a line cutter to cut the branchline as close to the hook as possible.
23. Development of new WCPFC guidelines or amendment to existing guidelines for safe release of sharks should take into account the health and safety of the crew.

## **VI. Species specific requirements**

24. Oceanic whitetip shark and silky shark
  - (1) CCMs shall prohibit vessels flying their flag and vessels under charter arrangements to the CCM from retaining on board, transshipping, storing on a fishing vessel or landing any oceanic whitetip shark, or silky shark, in whole or in part, in the fisheries covered by the Convention.
  - (2) CCMs shall require all vessels flying their flag and vessels under charter arrangements to the CCM to release any oceanic whitetip shark or silky shark that is caught as soon as possible after the shark is brought alongside the vessel, and to do so in a manner that results in as little harm to the shark as possible, following any applicable safe release guidelines for these species.
  - (3) Subject to national laws and regulations, and notwithstanding (1) and (2), in the case of oceanic whitetip shark and silky shark that are unintentionally caught and frozen as part of a purse seine vessels' operation, the vessel must surrender the whole oceanic whitetip shark and silky shark to the responsible governmental authorities or discard them at the point of landing or transshipment. Oceanic whitetip shark and silky shark surrendered in this manner may not be sold or bartered but may be donated for purpose of domestic human consumption.
  - (4) Observers shall be allowed to collect biological samples from oceanic whitetip sharks and silky shark caught in the Convention Area that are dead on haulback in the WCPO, provided that the samples are part of a research project of that CCM or the SC. In the case that sampling is conducted as a CCM project, that CCM shall report it in their Part 2 Annual Report.
25. Whale shark
  - (1) CCMs shall prohibit their flagged vessels from setting a purse seine on a school of tuna associated with a whale shark if the animal is sighted prior to the commencement of the set.
  - (2) CCMs shall prohibit vessels flying their flag and vessels under charter arrangements to the CCM from retaining on board, transshipping, or landing any whale shark caught in the Convention Area, in whole or in part, in the fisheries covered by the Convention.
  - (3) For fishing activities in Parties to Nauru Agreement (PNA) exclusive economic zones, the prohibition in paragraph (1) shall be implemented in accordance with the Third Arrangement implementing the Nauru Agreement as amended on 11 September 2010.
  - (4) Notwithstanding sub-paragraph (1) above, for fishing activities in exclusive economic zones of CCMs north of 30 N, CCMs shall implement either this measure or compatible measures consistent with the obligations under this measure. When CCMs apply compatible measures, the CCMs shall annually provide to the Commission, in their Part 2 Annual Report, a description of the measure.

(5) CCMs shall require that, in the event that a whale shark is incidentally encircled in the purse seine net, the master of the vessel shall:

(a) ensure that all reasonable steps are taken to ensure its safe release.; and

(b) report the incident to the relevant authority of the flag State, including the number of individuals, details of how and why the encirclement happened, where it occurred, steps taken to ensure safe release, and an assessment of the life status of the whale shark on release.

(6) In taking steps to ensure the safe release of the whale shark as required under sub-paragraph (5)(a) above, CCMs shall encourage the master of the vessel to follow the WCPFC Guidelines for the Safe Release of Encircled Whale Sharks (WCPFC Key Document SC-10)<sup>3</sup>.

(7) In applying steps under sub-paragraphs (1), (5)(a) and (6), the safety of the crew shall remain paramount.

(8) The Secretariat shall report on the implementation of this paragraph on the basis of observer reports, as part of the Annual Report on the Regional Observer Programme.

## **VII. Reporting requirements**

26. Each CCM shall submit data on the WCPFC Key Shark Species<sup>4</sup> for Data Provision in accordance with Scientific Data to be Provided to the Commission (WCPFC Key Document Data-01).

27. CCMs shall advise the Commission (in their Part 2 Annual Report) on implementation of this CMM in accordance with Annex 2.

## **VIII. Research**

28. CCMs shall as appropriate, support research and development of strategies for the avoidance of unwanted shark captures (e.g. chemical, magnetic and other shark deterrents), safe release guidelines, biology and ecology of sharks, identification of nursery grounds, gear selectivity, assessment methods and other priorities listed under the WCPFC Shark Research Plan.

29. The SC shall periodically provide advice on the stock status of key shark species for assessment and maintain a WCPFC Shark Research Plan for the assessment of the status of these stocks. If possible, this should be done in conjunction with the Inter-American Tropical Tuna Commission.

30. The SC shall periodically review the impact of fishing gear on sharks that are not retained, including oceanic whitetip shark and silky shark, inside and outside of the area between 20 N and 20 S, and provide advice on potential mitigation measures that would benefit such shark species.

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<sup>3</sup> Originally adopted on 8 December 2015. The title of this decision was amended through the Commission decision at WCPFC13, through adopting the SC12 Summary Report which contains in paragraph 742: "SC12 agreed to change the title of 'Guidelines for the safe release of encircled animals, including whale sharks' to 'Guidelines for the safe release of encircled whale sharks'."

<sup>4</sup> The WCPFC Key Shark Species for Data Provision are designated per the Process for Designating WCPFC Key Shark Species for Data Provision and Assessment (WCPFC Key Document SC-08) and are listed in Scientific Data to be Provided to the Commission (WCPFC Key Document Data-01).

**IX. Capacity building**

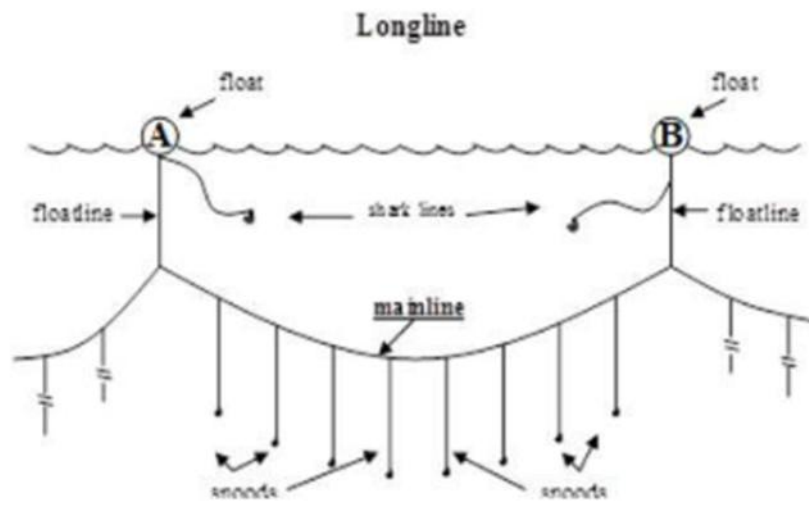
31. The Commission should consider appropriate assistance to developing State Members and participating Territories for the implementation of the IPOA and collection of data on retained and discarded shark catches.
32. The Commission shall consider appropriate assistance to developing State Members and participating Territories for the implementation of this measure, including supplying species identification guides for their fleets and guidelines and training for the safe release of sharks, and including, in accordance with Article 7 of the Convention, in areas under national jurisdiction.

**X. Review**

33. On the basis of advice from the SC and/or the TCC, the Commission shall review the implementation and effectiveness of this CMM, including species specific measures, taking into account, inter alia, any recommendation from the SC or TCC, in 2027 and amend it as appropriate.
34. This CMM replaces CMM 2022-04.



Annex 1. Schematic diagram of a shark line



## **Annex 2: Template for reporting implementation of this CMM**

Each CCM shall include the following information in Part 2 of its annual report:

1. Description of alternative measures in para 5, if applicable
2. Results of their assessment of the need for a National Plan of Action and/or the status of their national Plans of Action for the Conservation and Management of Sharks, as appropriate
3. Details of National Plan of Action, as appropriate, for implementation of IPOA Sharks in para 6 that includes:
  - (1) details of NPOA objectives; and
  - (2) species and fleet covered by NPOA as well as catches thereby
  - (3) measures to minimize waste and discards from shark catches and encourage the live release of incidental catches of sharks;
  - (4) workplan and a review process for NPOA implementation
4. With respect to para 9:
  - (1) Whether sharks or shark parts are retained on board their flag vessels, and if so, how they are handled and stored
  - (2) In case that CCMs retain sharks and choose to apply a requirement for fins to be naturally attached to carcasses
    - Their monitoring and enforcement systems relating to this requirement
  - (3) In case that CCMs retain sharks and choose to apply measures other than a requirement for fins to be naturally attached to carcasses
    - Their monitoring and enforcement systems relating to this requirement
    - A detailed explanation of why the fleet has adopted its fin-handling practice;
5. The management plan in para 17 that includes:
  - (1) specific authorizations to fish such as a license and a TAC or other measure to limit the catch of shark to acceptable levels;
  - (2) measures to avoid or reduce catch and maximize live release of species whose retention is prohibited by the Commission;
6. A report on sampling programs for oceanic whitetip sharks and silky shark as a CCM project as referred to in para 22 (4)
7. Estimated number of releases of oceanic whitetip shark and silky shark caught in the Convention Area, including the status upon release (dead or alive), through data collected from observer programs and other means.
8. Description of compatible measures as referred to in para 23 (4)
9. Any instances in which whale sharks have been encircled by purse seine nets of their flagged vessels, including the details required under para 23 (5)(b).



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## CONSERVATION AND MANAGEMENT MEASURE FOR NORTH PACIFIC STRIPED MARLIN

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### Conservation and Management Measure 2024-06

*The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean:*

*Noting* that WCPFC16 adopted an interim rebuilding plan for North Pacific striped marlin that details an interim rebuilding target for North Pacific striped marlin of  $20\%SSB_{F=0}$ , to be reached by 2034, with at least 60% probability;

*Noting* with concern that the latest stock assessment for North Pacific striped marlin provided by the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) in 2023, indicates that the stock is overfished and likely to be subject to overfishing relative to  $20\%SSB_{F=0}$  and MSY-based reference points;

*Noting* the advice from the ISC that catch should be kept at or below the recent level (2018-2020) average catch;

*Further noting* that the ISC conducted a rebuilding analysis demonstrating that rebuilding of North Pacific striped marlin can be achieved within the parameters of the WCPFC interim rebuilding plan;

*Also noting* that the Pacific Islands Forum Fisheries Agency (FFA) Members will be adopting a system of zone-based longline limits to replace the current system of flag-based arrangements within their Exclusive Economic Zones (EEZs);

*Adopts*, in accordance with Article 10 of the WCPF Convention:

1. This Measure shall apply in high seas and EEZs within the convention area north of the equator.
2. For the purposes of this measure, vessels operated under charter, lease or other similar mechanisms as an integral part of the domestic fleet of a coastal State, shall be considered to be vessels of the host State or Territory. Such charter, lease or other similar mechanism shall be conducted in a manner so as not to charter known IUU vessels.
3. Nothing in this measure shall prejudice the legitimate rights and obligations of Small Island Developing State Members and participating territories in the Convention Area seeking to develop their own domestic fisheries.
4. CCMs shall ensure that the total catch limit will not exceed 2400 metric tons of catch for each year between 2025 - 2027, which is based on a 60% reduction from the highest catch between 2000 and 2003. If CCMs cumulatively catch in excess of 2400mt in any given year, the measure will be reviewed the following year.

5. Japan, Chinese Taipei, Korea, United States, and China shall, respectively, ensure their annual catches of North Pacific striped marlin shall not exceed the annual catch limits in the table below, without prejudice to future agreements on allocation of TAC. Any CCM not included in the table below shall also ensure that its catch of North Pacific striped marlin does not result in an exceedance of the overall total catch limit of 2400 mt.

<b>CCM</b>	<b>Annual Catch Limit</b>
Japan	1454.4
Chinese Taipei	358.4
Korea	214.8
United States	228.4
China	68.8
<b>TOTAL</b>	<b>2324.8</b>

6. Any unused TAC from a given year will be placed in a reserve and be available for use by the CCMs in the table above in future years, as described in paragraphs 7 and 8 of this CMM. Each CCM will be able to use up to an additional 165 mt over its annual catch limit, so long as there is available catch in the reserve.<sup>1</sup>
7. In 2023, there was an 826 mt underage of the TAC of 2400 mt that will be available to CCMs fishing in 2025. Any underage from 2024 will be available to CCMs in 2026, and any underage from 2025 will be available to CCMs in 2027.
8. CCMs whose domestic authorities would require that they shut down their target fishery as a result of this measure shall receive preference in access to any available reserve.
9. Each flag/chartering CCM shall decide on the management measures required to ensure that its flagged/chartered vessels operate under the catch limits specified in paragraph 5 of this CMM, noting that previous examples of such measures have included effort reductions, gear modification and spatial management.
10. Each year CCMs shall report in their Part 2 annual reports their implementation of this measure, including the measures applied to flagged/chartered vessels to reduce their catch, which may include, but is not limited to catch limits, gear modifications, size restrictions and/or spatial management, and the total catch taken against the limits established under paragraph 5.
11. After their respective catch limits are reached, CCMs shall require their flagged vessels to promptly release to the extent possible North Pacific striped marlin specimens that are alive and haulback in a manner that maximize post release survival while giving due consideration to the safety of crew and members.
12. Any excess of the annual catch limits for North Pacific striped marlin established above shall be deducted from the respective catch limits during the adjustment year (i.e., the year following the Compliance Monitoring Report (CMR) that identified an overharvest).
13. CCMs shall provide their catch, effort, and estimates of total live and dead discards of North Pacific striped marlin in accordance with the Commission's requirements to support the future work of the ISC and SC, including for improving the robustness of stock assessments as soon as

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<sup>1</sup> The United States, based on historical fishing levels, may, for management purposes, presume an underage and the availability of the additional 165mt of catch.

possible, but no later than 2027.

14. This CCM replaces CMM 2010-01. This CMM shall be reviewed and shall be amended in 2027, pending the completion of a new stock assessment conducted by ISC.



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**CONSERVATION AND MANAGEMENT MEASURE FOR THE PROTECTION OF CETACEANS  
FROM PURSE SEINE AND LONGLINE FISHING OPERATIONS**

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**Conservation and Management Measure 2024-07**

The Western and Central Pacific Fisheries Commission;

In accordance with the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (the Convention);

**Recognising** the ecological and cultural significance of cetaceans in the Western and Central Pacific Ocean (WCPO);

**Further recognizing** that certain cetacean species and populations in the WCPFC Convention Area are threatened or critically endangered;

**Considering** the adverse effects of fishing for highly migratory fish stocks on some populations of cetaceans in the WCPO through capture, injury and mortality;

**Mindful** that cetaceans are particularly vulnerable to being encircled by purse seine nets, due to the propensity of tuna to form schools around them, or for toothed cetaceans to be attracted to the same prey as tuna;

**Aware** that longline fishing grounds overlap with the distributions of certain cetacean species and that cetacean interactions with longline fisheries are known to occur in the Convention Area;

**Aware** that SC19 noted the value of improving the understanding of interaction rates, particularly species-specific rates, of cetaceans in the WCPO fisheries;

**Committed** to ensuring that potential impacts on the sustainability of cetaceans from mortality through purse seine and longline operations are mitigated;

**Required**, by Articles 5(d) and (e) of the Convention, to adopt management arrangements for cetaceans as non-target and associated or dependent species, as they are incidentally caught by purse-seine and longline fisheries in the WCPO;

**Further Required**, by Articles 5 (e) and (f) of the Convention, to adopt measures to minimize catch of non-target species, both fish and non-fish species, and to protect biodiversity in the marine environment;

**Acknowledging** that the conservation of these species depends on co-operative and coordinated activity at the international level, and that Regional Fisheries Management Organisations play an integral role in mitigating the impacts of fishing on these species;

**Alarmed** by observer reports on fishing activities by vessels flagged to Members, Co-operating Non-Members, and Participating Territories that indicate a number of instances of interactions with these species, and instances of misreporting of such interactions in logbooks;

Adopts the following Conservation and Management Measure in accordance with Article 10 of the Convention:

1. CCMs shall prohibit their flagged vessels from setting a purse seine net on a school of tuna associated with a cetacean in the high seas and exclusive economic zones of the Convention Area, if the animal is sighted prior to commencement of the set.
2. CCMs shall require that, in the event that a cetacean is unintentionally encircled in the purse seine net, the master of the vessel shall:
  - (a) ensure that all reasonable steps are taken to ensure its safe release. This shall include stopping the net roll and not recommencing fishing operation until the animal has been released and is no longer at risk of recapture; and
  - (b) through the logsheet or any other means, report the incident to the relevant authority of the flag CCM, including details of the species (if known) and number of individuals, location and date of such encirclement, steps taken to ensure safe release, and an assessment of the life status of the animal on release (including, if possible, whether the animal was released alive but subsequently died).
3. CCMs shall prohibit all longline and purse seine vessels flying their flag, including vessels fishing under charter arrangements, from harvesting, retaining onboard, transshipping, or landing any cetacean, in whole or any part thereof, in the Convention Area.
4. CCMs shall require all longline vessels flying their flag, including those fishing under charter arrangements, to release, taking into account the safety of the crew, any cetacean that is caught or entangled by its fishing gear in the Convention Area as soon as possible and in a manner that results in as little harm to the cetacean as possible and utilizing the Best Practices for the Safe Handling and Release of Cetaceans (suppl\_CMM 2011-03-01), if possible.
5. In taking steps to ensure the safe release of the cetacean as required under paragraphs 2(a) and 4, CCMs shall require the master of the vessel to follow any guidelines adopted by the Commission for the purpose of this measure.
6. In applying steps under paragraphs 2(a), 4 and 5, the safety of the crew shall remain paramount.
7. CCMs shall provide their purse seine and longline operators with information on the Best Practices for the Safe Handling and Release of Cetaceans.
8. The Secretariat shall report on the implementation of this conservation and management measure on the basis of observer reports, as part of the Annual Report on the Regional Observer Programme and any other reports as appropriate.
9. This Conservation and Management Measure shall enter into force on July 1, 2025.



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**Intersessional process to develop voluntary regional guides for the use of tools in conducting high seas boarding and inspections**

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**Voluntary regional guides for the use of tools in conducting high seas boarding and inspections**

Background

1. Recalling:
  - *CMM 2006-08 11. The Commission shall keep the implementation of these procedures under review.*
  - *CMM 2006-08 47b. In applying these procedures, Contracting Parties may seek to promote optimum use of the authorized inspection vessels and authorized inspectors by: ensuring that boarding and inspection on the high seas is fully integrated with the other monitoring, compliance and surveillance tools available pursuant to the Convention.*
  - *TCC20 requested Australia along with interested CCMs to bring a paper to WCPFC21 on an intersessional process to develop voluntary regional guides and best practices for the use of tools in conducting high seas boarding and inspections including, but not limited to, DNA testing, weight estimation, assessment of bycatch mitigation methods, collection and dissemination of photo and video evidence, and to update the Standardized Multi-language Questionnaire and report to TCC 21 for discussion and possible adoption at WCPFC22.*
2. This paper outlines the WCPFC21 endorsed intersessional process to address TCC20's request of Australia and interested CCMs. Interested CCMs and observers to provide existing guides and documentation for relevant High Seas Boarding and Inspection (HSBI) tools and nominate technical experts to participate in the process

Objectives for the intersessional work

3. This process seeks to establish a group of technical experts to draft guides on HSBI evidence collection for consideration at TCC21.
4. Accounting for items discussed during TCC20, it is proposed the intersessional process will consider guides for the following indicative list of HSBI tools:
  - *DNA testing (including benefits, recommended procedures for sampling and processing to an evidentiary standard),*



- *weight estimation,*
  - *calibration certificates for measuring tools*
  - *measurement of tori lines,*
  - *measurement of weighted branch lines,*
  - *collection of photographs and video evidence (including file type recommendations, and capturing actions of inspectors such as measurements and DNA sampling),*
  - *recommendations for dissemination of photographic and video evidence consisting of many, or large files that cannot be sent via email, and*
  - *update the Standardized Multi-language Questionnaire.*
5. The above tools were chosen as a starting point, and it is recognized that there are other existing or emerging HSBI tools which may require additional guides to be developed.

#### Informal Intersessional Process

6. Australia will lead the intersessional work, supported by China and other interested CCMs to develop the HSBI guides.
7. A group of technical experts will be established at WCPFC21 to support the drafting of Draft HSBI Guides during 2025.
8. The WCPFC Secretariat will provide support for this process, including circulating meeting notices and making relevant documents available on the WCPFC website.
9. The intersessional process shall be open to all CCMs and observers.
10. All CCMs and observers are encouraged to provide input to the work of the working group.
11. Any CCMs with such guides or proposed specifications are requested to share them with Australia and interested CCMs for consideration.
12. The lead/co-leads are responsible for producing the first draft of the HSBI Guides and preparing drafts for TCC21 and WCPFC22.
13. The process will be convened electronically, with the potential to convene in the margins of other in-person meetings.

#### Voluntary HSBI Guides – Proposed drafting considerations and terms of reference

14. The HSBI Guides will accommodate, to the extent possible, any existing HSBI guidance shared by CCMs that have established HSBI procedures.
15. The application of the HSBI Guides will be voluntary and apply to HSBI activities within the WCPFC area of competence.
16. The HSBI Guides will set out voluntary procedures for HSBI Inspectors to follow and will include, *but are not limited to*, data collection and sampling protocols.
17. The development of HSBI Guides will complement the existing HSBI CMM 2008-06 and other related CMMs that impose obligations relevant to HSBI activities (e.g. bycatch mitigation measures). However, under no circumstances shall the

development of these guides contravene the provisions of CMM 2006-08 and related CMMs, nor shall it produce a discriminatory effect on members conducting HSBI

#### Schedule of Work

18. CCMs interested in actively participating in the development of the HSBI Guides should notify their intent as soon as possible to Australia and the WCPFC Secretariat and provide contact details to:
  - David Power <[david.power@afma.gov.au](mailto:david.power@afma.gov.au)>, Senior Manager, Foreign Compliance Policy, Australian Fisheries Management Authority (AFMA)
  - cc. Lara Manarangi-Trott <[lara.manarangi-trott@wcpfc.int](mailto:lara.manarangi-trott@wcpfc.int)>, Compliance Manager, WCPFC
  - cc. Emily Lawson <[emily.lawson@afma.gov.au](mailto:emily.lawson@afma.gov.au)>, Senior Policy Officer, Foreign Compliance Policy, AFMA.
19. Preparation of the first draft HSBI guide will commence in January 2025 with initial drafts to be circulated to working group participants.
20. Technical experts in the working group shall hold (at least) two informal intersessional virtual meetings/workshops to gather and review the draft HSBI guides. The virtual meetings will be hosted by Australia with the support of the WCPFC Secretariat. It is anticipated the first meeting will be held in the first quarter of 2025 with second meeting in the second quarter of 2025.
21. Draft HSBI Guides will be presented to TCC21 for consideration prior proposed adoption at WCPFC22.



**COMMISSION**  
**Twenty-First Regular Session**  
28 November to 3 December 2024  
Suva, Fiji (Hybrid)

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**Approved 2025 Budget and Indicative Budgets for 2026 and 2027**

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## ANNEX 1

Summary of estimated General Fund budgetary requirements for 2025  
and indicative figures for 2026 and 2027 (USD)

	Approved budget 2024	Estimated expenditure 2024	Indicative budget 2025	Approved budget 2025	Indicative budget 2026	Indicative budget 2027
<b>Part 1 - Administrative Expenses of the Secretariat</b>						
<b>Sub-Item 1.1 Staff Costs</b>						
Professional Staff Salary	983,173	941,992	989,884	967,152	987,716	1,008,471
Professional Staff Benefits and Allowances	990,655	728,889	973,966	984,735	996,868	1,009,113
Professional Staff Insurance	181,521	165,738	200,817	174,229	176,682	179,209
Recruitment/Repatriation	25,565	27,247	0	25,565	25,565	25,565
Support Staff	563,422	547,461	621,161	669,825	693,588	702,764
<b>Total, sub-item 1.1</b>	<b>2,744,337</b>	<b>2,411,327</b>	<b>2,785,827</b>	<b>2,821,507</b>	<b>2,880,420</b>	<b>2,925,122</b>
<b>Sub-Item 1.2 Other Personnel Costs</b>						
Temporary Assistance/Overtime	16,500	16,500	16,500	16,500	16,500	16,500
Chairs Expenses	60,000	35,511	60,000	50,000	50,000	50,000
Consultants (Note 1)	153,000	154,685	153,000	153,000	153,000	153,000
<b>Total, sub-item 1.2</b>	<b>229,500</b>	<b>206,696</b>	<b>229,500</b>	<b>219,500</b>	<b>219,500</b>	<b>219,500</b>
<b>Sub-Item 1.3 Official Travel</b>						
<b>Total, sub-item 1.3</b>	<b>200,000</b>	<b>182,232</b>	<b>200,000</b>	<b>200,000</b>	<b>200,000</b>	<b>200,000</b>
<b>Sub-Item 1.4 General Operating Expenses</b>						
Electricity, Water, Sanitation	42,000	46,689	42,000	48,000	48,000	48,000
Communications/Courier	84,000	82,026	82,000	84,000	84,000	84,000
Office Supplies & Fuel	41,000	40,854	41,000	41,000	41,000	41,000
Audit	7,000	12,742	7,000	17,510	18,540	18,540
Bank Charges	13,000	10,783	13,000	13,000	13,000	13,000
Official Hospitality	10,000	6,751	10,000	10,000	10,000	10,000
Community Outreach	8,000	7,913	8,000	8,000	8,000	8,000
Miscellaneous Services	6,000	5,497	6,000	6,000	6,000	6,000
Security	110,867	108,387	110,867	117,065	117,065	117,065
Training	12,000	12,779	12,000	15,000	15,000	15,000
<b>Total, sub-item 1.4</b>	<b>333,867</b>	<b>334,421</b>	<b>331,867</b>	<b>359,575</b>	<b>360,605</b>	<b>360,605</b>
<b>Sub-Item 1.5 Capital Expenditure</b>						
Vehicles	22,000	13,000	0	0	22,000	0
Information Technology	48,400	45,032	48,400	48,400	48,400	48,400
Furniture and Equipment	32,000	29,564	32,000	32,000	32,000	32,000
<b>Total, sub-item 1.5</b>	<b>102,400</b>	<b>87,596</b>	<b>80,400</b>	<b>80,400</b>	<b>102,400</b>	<b>80,400</b>
<b>Sub-Item 1.6 Maintenance</b>						
Vehicles	6,000	6,512	6,000	6,000	6,000	6,000
Information and Communication Technology	169,039	184,207	169,039	191,012	179,912	179,912
Website Hosting	20,130	26,877	20,130	26,877	26,877	26,877
Buildings & Grounds	63,000	62,573	63,000	63,000	63,000	63,000
Gardeners and Cleaners	92,568	90,358	92,568	97,743	97,743	97,743
Insurance	28,500	29,250	28,500	29,250	29,250	29,250
<b>Total, sub-item 1.6</b>	<b>379,237</b>	<b>399,776</b>	<b>379,237</b>	<b>413,882</b>	<b>402,782</b>	<b>402,782</b>
<b>Sub-Item 1.7 Meeting Services</b>						
Annual Session	205,000	245,000	205,000	225,000	205,000	205,000
Scientific Committee	220,000	187,250	220,000	235,000	220,000	220,000
Northern Committee (Note 2)	18,000	18,000	18,000	18,000	18,000	18,000
Technical and Compliance Committee	174,800	167,430	174,800	174,800	174,800	174,800
Funding for Working Groups	0	0	0	25,000	0	0
<b>Total, sub-item 1.7</b>	<b>617,800</b>	<b>617,680</b>	<b>617,800</b>	<b>677,800</b>	<b>617,800</b>	<b>617,800</b>
<b>Sub-Item 1.8 Future Work - Commission (Note 3)</b>						
<b>Total, sub-item 1.8</b>	<b>0</b>	<b>0</b>	<b>220,000</b>	<b>0</b>	<b>220,000</b>	<b>220,000</b>
<b>Sub-Item 1.9 Funding for Developing CCM to Meetings</b>						
<b>Total, sub-item 1.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>
<b>TOTAL, Section 1/Item 1</b>	<b>4,607,141</b>	<b>4,239,728</b>	<b>4,844,631</b>	<b>5,072,663</b>	<b>5,303,506</b>	<b>5,326,208</b>

	Approved budget 2024	Estimated expenditure 2024	Indicative budget 2025	Approved budget 2025	Indicative budget 2026	Indicative budget 2027
<b>ANNEX 1 (continued)</b>						
<b>Part 2 - Science &amp; Technical &amp; Compliance Programme</b>						
<b>Section 2 (Item 2)</b>						
<b>Sub-item 2.1</b>	<b>Scientific Services (SPC) (Note 4)</b>					
	1,000,734	1,000,734	1,020,749	1,020,749	1,041,164	1,061,987
<b>Sub-item 2.2</b>	<b>Scientific Research</b>					
Additional Resourcing SPC (Note 4)	180,204	180,204	183,808	183,808	187,484	191,234
SPC additional stock assessment scientist (Note 4)	165,000	165,000	168,300	168,300	171,666	175,099
P35b Pacific Marine Specimen Bank	107,373	107,373	109,520	109,520	111,711	113,945
P42 Pacific Tuna Tagging Project	800,000	800,000	875,000	875,000	950,000	950,000
P68 Estimation of Seabird Mortality	0	0	0	0	30,000	0
P90 Fish Lengths/Weights Conversion Analyses	20,000	20,000	20,000	20,000	0	0
P108 WCPO silky shark assessment	100,000	100,000	0	0	0	0
P113b Template for stock status/manag. advice	40,000	40,000	0	0	0	0
P114 Improved cannery receipt data	60,000	60,000	35,000	0	0	0
P19X5 Updated reproductive biol. of trop. tunas (Note 4)	44,000	44,000	0	0	0	0
P19X6 (P121) Ecosystem and Climate Indicators	0	0	20,000	20,000	15,000	15,000
P19X7 Scoping study on longline effort creep	30,000	30,000	0	0	0	0
P19X8 (P123) Scoping next generation of assess. software	50,000	50,000	50,000	50,000	50,000	0
P19X9 Manta/mobulid/whale shark assessment	0	0	56,000	0	0	0
P19X10 (P124) Oceanic whitetip assessment	60,000	60,000	60,000	80,000	0	0
P19X11 Sampling strategy for shark biological data	0	0	40,000	0	0	0
P20X04 Biology from billfish samples in LL fisheries	0	0	0	40,000	40,000	40,000
P20X05 Developing a sampling strategy for sharks	0	0	0	40,000		
P20X07 Reconciliating size composition data collection	0	0	0	50,000		
P20X08 Connectivity of YFT/SKJ in WPEA&WCPFC-CA	0	0	0	60,000		
<b>Total, sub-item 2.2</b>	<b>1,656,577</b>	<b>1,656,577</b>	<b>1,617,628</b>	<b>1,696,628</b>	<b>1,555,861</b>	<b>1,485,278</b>
<b>Sub-item 2.3</b>	<b>Technical &amp; Compliance Programme</b>					
ROP Travel for Audits and Training	35,000	7,177	35,000	35,000	35,000	35,000
ROP - Consultancy	85,000	85,000	85,000	85,000	85,000	85,000
ROP Data Management	923,904	923,904	923,904	923,904	923,904	923,904
Vessel Monitoring System - Capital Costs	20,000	0	20,000	0	0	0
Vessel Monitoring System	200,000	148,238	200,000	200,000	200,000	200,000
Vessel Monitoring System - Airtime	214,527	202,726	218,818	214,527	218,818	223,194
IT Security Audit	10,500	0	10,500	0	0	0
Information Management System (Note 5)	120,000	122,531	120,000	120,000	120,000	120,000
Monthly Reports and CCM Dashboards (Note 6)	40,000	25,600	40,000	40,000	40,000	40,000
CMS Future Work (Note 7)	50,000	65,633	30,000	30,000	30,000	20,000
Enhance Secretariat Analytical Capacity (Note 8)	80,000	76,680	80,000	80,000	40,000	40,000
Compliance and Monitoring Analyst Consultant (Note 9)	30,000	35,400	0	0	0	0
Repeatable reports - next generation approach (Note 10)	0	0	0	30,000	30,000	30,000
E-Monitoring and E-Reporting Activities	30,000	39,264	30,000	30,000	30,000	30,000
CCM/Staff Training (Note 11)	25,000	0	25,000	25,000	25,000	25,000
Targeted Capacity Building	40,000	0	40,000	40,000	40,000	40,000
Workshops/IATTC Cross Endor. Train.	10,000	0	10,000	10,000	10,000	10,000
Regional Capacity Building Workshops (Note 12)	130,000	130,000	130,000	130,000	130,000	130,000
<b>Total, Item 2.3</b>	<b>2,043,931</b>	<b>1,862,153</b>	<b>1,998,222</b>	<b>1,993,431</b>	<b>1,957,722</b>	<b>1,952,098</b>
<b>TOTAL, Section 2/Item 2</b>	<b>4,701,242</b>	<b>4,519,464</b>	<b>4,636,599</b>	<b>4,710,808</b>	<b>4,554,746</b>	<b>4,499,363</b>
<b>Total, Parts 1 &amp; 2</b>	<b>9,308,383</b>	<b>8,759,192</b>	<b>9,481,230</b>	<b>9,783,471</b>	<b>9,858,252</b>	<b>9,825,571</b>

*Note 1: Consultancies proposed are:*

Legal support services (including travel)	\$65,000
Meetings' rapporteur (including travel)	\$63,000
Miscellaneous Consultancies	\$25,000
	<u>\$153,000</u>

*Note 2: Northern Committee*

As per WCPFC9, additional funds will be assessed from non-developing state members of the NC to fund attendance at the NC meeting by developing states and territories if needed.

*Note 3: Sub-item 1.8 Future Work - Commission*

Budget line added in 2020 to account for unidentified future work that may be required by the Commission. Amount reduced to \$0 for the proposed 2025 budget with the additional projects under Scientific Research.

*Note 4: Section 2 Science programme*

- Refer to Annex 12 and Para 3 of Annex 13 for SPC scientific services, additional resourcing, and additional scientists  
- Refer to Para 4 of Annex 13 for job descriptions of the proposed projects for 2025 funding support

*Note 5: Information Management System*

2025/26 - Includes continual improvements to IT-related tools to improve ease of use for CCMs to manage their own reporting (refer to TCC19-2023-22)

*Note 6: Monthly Reports and CCM Dashboards*

Renamed AR Part 2/CMS Online Host. and Pub. - because AR Part 2 and CMR system upgrades to be completed in 2025 - reflects a shift to consider additional opportunities to support CCMs with their own reporting

*Note 7: CMS Future Work*

2025 - for CCFS subsampling approach improvements, planned CMR system report enhancements and obligation compliance rating trends

*Note 8: Enhance Secretariat Analytical Capacity*

2025/26 - continuing exploration of work that delivers strategic solutions, to better support the current and future information management needs of the Commission (refer TCC20-2024-04).

*Note 9: Compliance and Monitoring Analyst Consultant*

2024/25 - TCC19 supported supplementary dedicated analytical capacity for the Secretariat in 2024 and 2025 (TCC19 Outcomes para 61). Focus includes exploring what might be needed to assist the Secretariat in understanding the potential uses of data from the Commissions monitoring programmes, with an initial focus on Secretariat support to VMS monitoring, high seas transshipment monitoring and high seas pocket management, and optimize with the support of routine reports the Secretariats and CCMs joint work to address data quality issues and gaps affecting monitoring (refer TCC19-2023-18).

*Note 10: Repeatable reports - next generation approach*

2024/26 - To deliver efficiencies in the Secretariat's generation of required annual reporting, supports continuous improvement in the editorial work and leverages recent work to improve data management in the compliance area (refer TCC20-2024-04)

*Note 11: CCM/Staff Training Guidance and Learning Aids*

Renamed CCM/Staff VMS Training to broaden the scope of the intended activities, including support for training guidance and learning aids

*Note 12: Regional Capacity Building Workshops*

FFA/SPC to advise on the use of these funds

**ANNEX 2**

**Proposed General Fund financing table for 2025**

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<b>Proposed budget expenditure total</b>	9,783,471
less	
Estimated interest	(3,400)
<b>Transfer from Working Capital Fund</b>	(500,000)
<b>CNM Contributions Fund</b>	0
<b>Total assessed contributions</b>	<u>9,280,071</u>

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**Proposed General Fund financing table for 2026**

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<b>Proposed budget expenditure total</b>	9,858,252
less	
Estimated interest and other income	(3,500)
<b>Transfer from Working Capital Fund</b>	(350,000)
<b>CNM Contributions Fund</b>	0
<b>Total assessed contributions</b>	<u>9,504,752</u>

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**Proposed General Fund financing table for 2027**

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<b>Proposed budget expenditure total</b>	9,825,571
less	
Estimated interest and other income	(3,500)
<b>Transfer from Working Capital Fund</b>	(350,000)
<b>CNM Contributions Fund</b>	0
<b>Total assessed contributions</b>	<u>9,472,071</u>

ANNEX 3

Schedule of contributions based on the Commission's contribution formula

2025 Contribution Table										
Member	Base fee component: uniform share 10% of budget	National wealth component: 20% of budget	Catch component: 70% of budget	Addition for Northern Committee	Addition by Non-SIDS for SIDS offset	SIDS Offset	Total	Percent of Budget by member	Offset for Small Islands Developing States*	Total of component s: 100% of budget**
Australia	35,093	117,011	15,475	0	1,263	0	170,042	1.85%	0	170,042
Canada	35,093	109,303	42	0	1,085	0	146,122	1.59%	0	146,122
China	35,093	230,099	193,784	0	3,490	0	469,066	5.10%	0	469,066
Cook Islands	35,093	1,010	18,738	0	0	1,786	53,055	0.61%	36,259	89,914
European Union	35,093	274,570	81,820	0	2,934	0	395,017	4.29%	0	395,017
Federated States of Micronesia	35,093	6,062	543,405	0	0	18,868	566,892	6.41%	18,868	585,760
Fiji	35,093	8,658	23,223	0	0	2,177	65,398	0.74%	2,177	67,574
France	35,093	110,477	14,900	0	1,205	0	162,275	1.76%	0	162,275
Indonesia	35,093	22,498	191,422	0	1,868	0	251,481	2.73%	0	251,481
Japan	35,093	130,172	1,099,344	0	9,409	0	1,274,678	13.84%	0	1,274,678
Kiribati	35,093	5,436	525,564	0	0	18,254	548,438	6.20%	18,254	566,692
Korea	35,093	80,341	1,055,298	0	8,766	0	1,180,098	12.81%	0	1,180,098
Marshall Islands	35,093	2,100	299,158	0	0	10,854	326,097	3.69%	20,002	346,099
Nauru	35,093	639	375,909	0	0	13,279	398,902	4.51%	45,177	444,139
New Zealand	35,093	80,905	18,763	0	1,013	0	136,374	1.48%	0	136,374
Niue	35,093	91	5	0	0	1,153	34,036	0.39%	28,244	62,880
Palau	35,093	903	40	0	0	1,180	35,455	0.40%	22,960	58,416
Papua New Guinea	35,093	4,907	162,000	0	0	6,546	196,060	2.22%	6,546	203,206
Philippines	35,093	11,912	113,186	0	1,203	0	161,994	1.76%	0	161,994
Samoa	35,093	6,311	5,918	0	0	1,544	46,378	0.52%	1,544	47,921
Solomon Islands	35,093	3,737	69,799	0	0	3,518	105,710	1.19%	3,518	109,229
Chinese Taipei	35,093	63,064	987,076	0	8,126	0	1,093,959	11.88%	0	1,093,959
Tonga	35,093	5,389	593	0	0	1,342	40,332	0.46%	4,238	44,570
Tuvalu	35,093	570	150,449	0	0	6,014	180,697	2.04%	17,226	197,923
United States of America	35,093	427,866	293,615	0	5,667	0	762,841	8.28%	0	762,841
Vanuatu	35,093	5,685	255,914	0	0	9,576	287,715	3.25%	9,576	297,292
<b>Totals</b>	<b>928,007</b>	<b>1,717,516</b>	<b>6,496,049</b>	<b>0</b>	<b>46,090</b>	<b>96,090</b>	<b>9,091,572</b>	<b>100%</b>	<b>234,588</b>	<b>9,326,161</b>

\* To be offset by the CNM Contributions Fund.

\*\* Total includes \$46,090 Offset for SIDS



ANNEX 3 Cont.

Offset for Small Island Developing States as per Financial Regulation 5.2(b) (ii)					Offset for SIDS per WCPFC21			
Member	Population	Maximum Payable for wealth component	National wealth component	Offset for Small Island Developing States	Percent of total budget	Percent of General Offset	General Offset for SIDS	Total Offsets
Cook Islands	20,200	1,010	35,483	34,473	0.6%	1.9%	1,786	36,259
Federated States of Micronesia	115,220	5,761	6,662	0	6.4%	19.6%	18,868	18,868
Fiji	936,380	46,819	8,658	0	0.7%	2.3%	2,177	2,177
Kiribati	133,510	6,676	5,436	0	6.2%	19.0%	18,254	18,254
Marshall Islands	42,000	2,100	11,248	9,148	3.7%	11.3%	10,854	20,002
Nauru	12,780	639	32,537	31,898	4.5%	13.8%	13,279	45,177
Niue	1,819	91	27,182	27,091	0.4%	1.2%	1,153	28,244
Palau	18,060	903	22,683	21,780	0.4%	1.2%	1,180	22,960
Papua New Guinea	10,329,939	516,497	4,907	0	2.2%	6.8%	6,546	6,546
Samoa	225,680	11,284	6,311	0	0.5%	1.6%	1,544	1,544
Solomon Islands	740,420	37,021	3,737	0	1.2%	3.7%	3,518	3,518
Tonga	107,770	5,389	8,284	2,895	0.5%	1.4%	1,342	4,238
Tuvalu	11,400	570	11,782	11,212	2.0%	6.3%	6,014	17,226
Vanuatu	334,510	16,726	5,685	0	3.3%	10.0%	9,576	9,576
<b>Total</b>				<b>138,498</b>	<b>33%</b>	<b>100%</b>	<b>96,090</b>	<b>234,588</b>

Additional Funding for NC as agreed in WCPFC9-2012-22 FAC 6 Summary Report 5.4 (25)

Non-developing States Members of NC	Percent of total budget	Percent of NC fund	Additional cost
Canada	1.56%	3.0%	0
China	5.02%	9.5%	0
Japan	13.63%	25.9%	0
Korea	12.62%	23.9%	0
Chinese Taipei	11.70%	22.2%	0
United States of America	8.16%	15.5%	0
<b>Total</b>	<b>52.70%</b>	<b>100.00%</b>	<b>0</b>

ANNEX 3 Cont.

Schedule of contributions based on proposed 2025 budgets without the Offset for Small Island Developing States and Additional funds Assessed on Non-Developing States Members of NC

Member	2025					2026 Indicative		2027 Indicative	
	Base fee component: uniform share 10% of budget	National wealth component: 20% of budget	Catch component: 70% of budget	Total of components: 100% of budget	% of budget by member	Total of components: 100% of budget	% of budget by member	Total of components: 100% of budget	% of budget by member
Australia	35,693	117,611	15,475	168,779	1.82%	172,866	1.82%	172,271	1.82%
Canada	35,693	109,303	42	145,037	1.56%	148,549	1.56%	148,038	1.56%
China	35,693	236,699	193,784	466,176	5.02%	477,463	5.02%	475,821	5.02%
Cook Islands	35,693	35,483	18,738	89,914	0.97%	92,091	0.97%	91,775	0.97%
European Union	35,693	274,370	81,820	392,083	4.22%	401,576	4.22%	400,195	4.22%
Federated States of Micronesia	35,693	6,662	543,405	585,760	6.31%	599,942	6.31%	597,879	6.31%
Fiji	35,693	8,058	23,223	67,574	0.73%	69,210	0.73%	68,972	0.73%
France	35,693	110,477	14,900	161,070	1.74%	164,970	1.74%	164,402	1.74%
Indonesia	35,693	22,498	191,422	249,613	2.69%	255,656	2.69%	254,777	2.69%
Japan	35,693	130,172	1,099,344	1,265,209	13.63%	1,295,841	13.63%	1,291,385	13.63%
Kiribati	35,693	5,436	525,564	566,692	6.11%	580,413	6.11%	578,417	6.11%
Korea	35,693	80,341	1,055,298	1,171,332	12.62%	1,199,691	12.62%	1,195,566	12.62%
Marshall Islands	35,693	11,248	299,158	346,099	3.73%	354,478	3.73%	353,260	3.73%
Nauru	35,693	32,337	375,909	444,139	4.79%	454,892	4.79%	453,328	4.79%
New Zealand	35,693	80,905	18,763	135,361	1.46%	138,638	1.46%	138,161	1.46%
Niue	35,693	27,182	5	62,880	0.68%	64,402	0.68%	64,181	0.68%
Palau	35,693	22,683	40	58,416	0.63%	59,830	0.63%	59,624	0.63%
Papua New Guinea	35,693	4,907	162,606	203,206	2.19%	208,126	2.19%	207,410	2.19%
Philippines	35,693	11,912	113,186	160,791	1.73%	164,684	1.73%	164,117	1.73%
Samoa	35,693	6,311	5,918	47,921	0.52%	49,081	0.52%	48,913	0.52%
Solomon Islands	35,693	3,737	69,799	109,229	1.18%	111,873	1.18%	111,488	1.18%
Chinese Taipei	35,693	63,664	987,076	1,085,832	11.70%	1,112,122	11.70%	1,108,298	11.70%
Tonga	35,693	8,284	593	44,569	0.48%	45,649	0.48%	45,492	0.48%
Tuvalu	35,693	11,782	150,449	197,923	2.13%	202,715	2.13%	202,018	2.13%
United States of America	35,693	427,866	293,615	757,174	8.16%	775,506	8.16%	772,840	8.16%
Vanuatu	35,693	5,685	255,914	297,292	3.20%	304,489	3.20%	303,442	3.20%
<b>Totals</b>	<b>928,007</b>	<b>1,856,014</b>	<b>6,496,049</b>	<b>9,280,071</b>	<b>100.00%</b>	<b>9,504,752</b>	<b>100.00%</b>	<b>9,472,071</b>	<b>100.00%</b>

**ANNEX 3 Cont.**

**Offset by Non-SIDS - Proportionally**

<b>CCM</b>	<b>Contribution percent</b>	<b>Extrapolated percentage</b>	<b>Total</b>
Australia	1.85%	2.74%	\$ 1,263
Canada	1.59%	2.36%	\$ 1,085
China	5.10%	7.57%	\$ 3,490
European Union	4.29%	6.37%	\$ 2,934
France	1.76%	2.62%	\$ 1,205
Indonesia	2.73%	4.05%	\$ 1,868
Japan	13.84%	20.54%	\$ 9,469
Korea	12.81%	19.02%	\$ 8,766
New Zealand	1.48%	2.20%	\$ 1,013
Philippines	1.76%	2.61%	\$ 1,203
Chinese Taipei	11.88%	17.63%	\$ 8,126
United States of America	8.28%	12.29%	\$ 5,667
<b>Total</b>	<b>67.37%</b>	<b>100.00%</b>	<b>\$ 46,090</b>