South Pacific Albacore Management Procedure: 2026 MP Run

WCPFC-SC22-2026/MI-WP-07

N. Yao, R. Scott, F. Scott, A. Dabea, G. Pilling

Introduction

- WCPFC22 adopted the South Pacific albacore management procedure (MP) through CMM 2025-01.

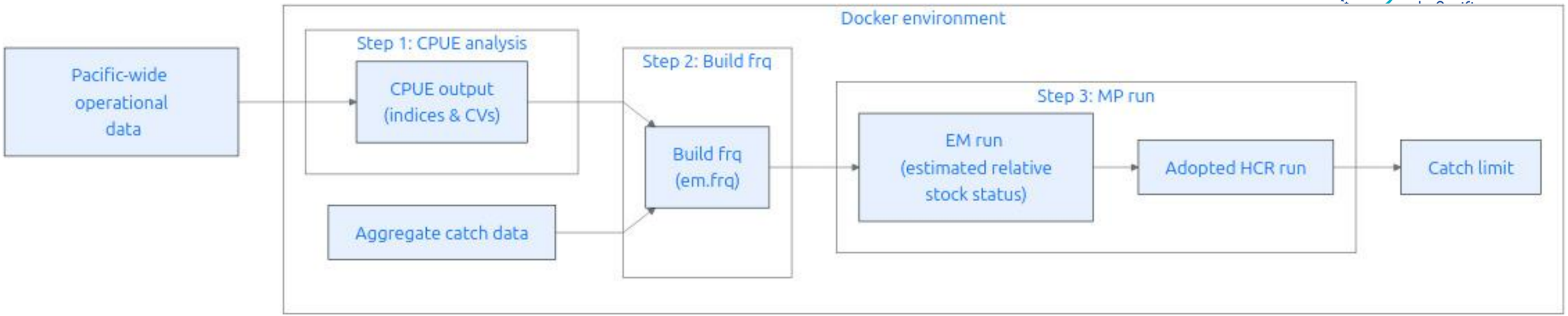
- In 2026, SPC was tasked with running the MP to determine the catch limit for 2027–2029.

- The 2026 MP run:
  - uses data updated through 2024;
  - incorporates routine data revisions and updated CPUE indices.

- The resulting catch limit applies to longline and troll fisheries operating south of 10°S in the WCPFC Convention Area, excluding the EEZs of Tokelau and Tuvalu.

- A dry run uses data updated through 2023 was presented at WCPFC22 to demonstrate the MP process.

Flowchart of the SPA MP Run



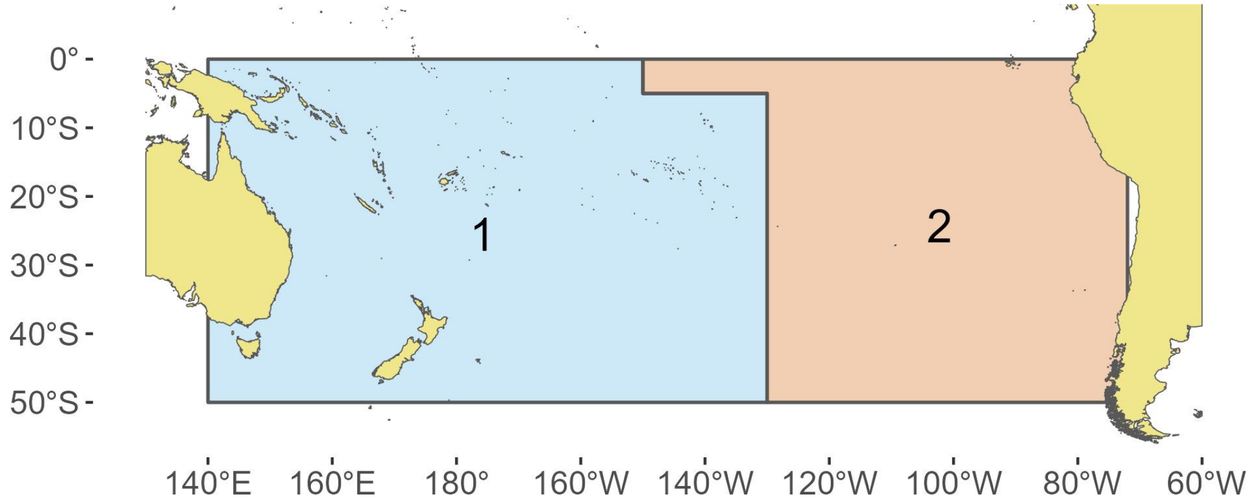
The 2026 SPA MP follows a **three-step** workflow:

- Standardised CPUE indices and their associated coefficient of variation (CVs) were estimated using Pacific-wide operational longline data.
- CPUE indices, CVs and catch data are prepared and combined into the EM input file.
- The EM estimates relative stock status, which is passed to the HCR to determine the catch limit.

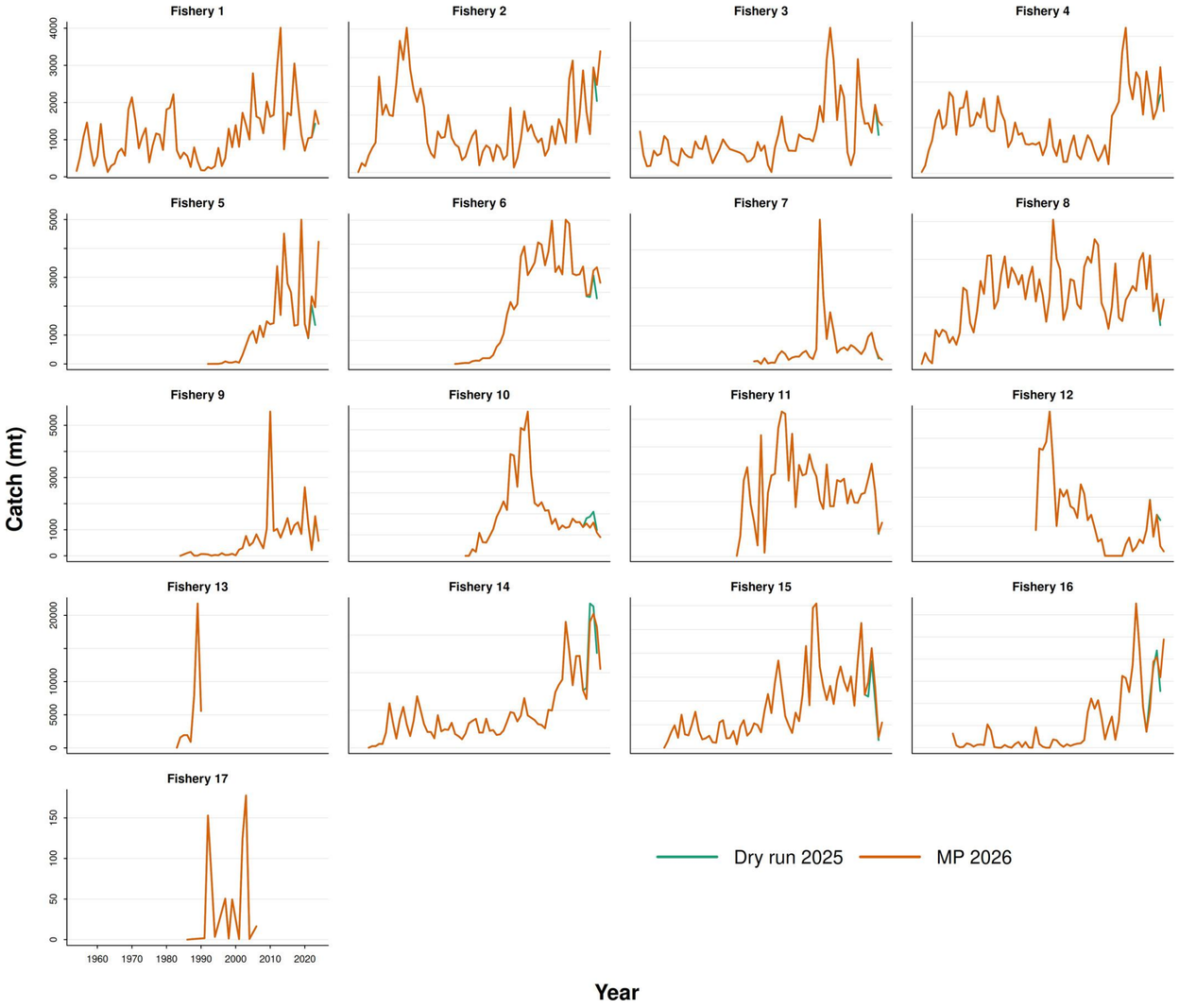
The workflow has also been containerised to improve reproducibility.

Estimation Method Configuration

- Fixed age-structured production model, unchanged from MP development.
- Quarterly time steps covering 1954–2024.
- **Two regions:**
  - WCPFC Convention Area (WCPFC-CA).
  - EPO, excluding the overlap area.
- **19 fisheries:**
  - 17 extraction fisheries.
  - Two longline CPUE index fisheries.

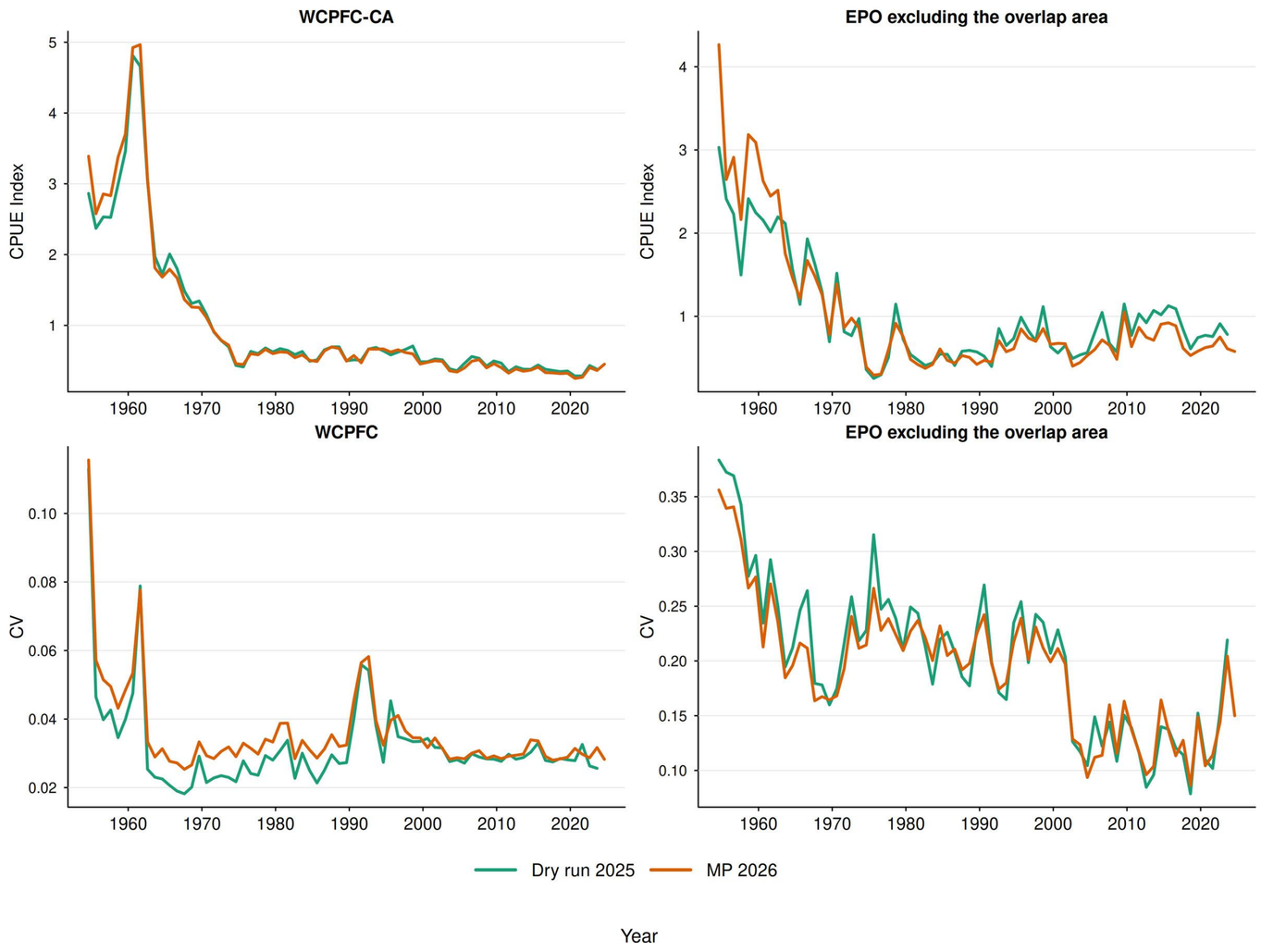


Catch Data



- Catch in weight updated though 2024.
- Overall, catch estimates were highly consistent.
- Small differences occurred in recent years in both the WCPO and EPO, mainly due to data revisions.
- The differences were relatively minor, totalling approximately 3.8% over the period.

CPUE Standardsation

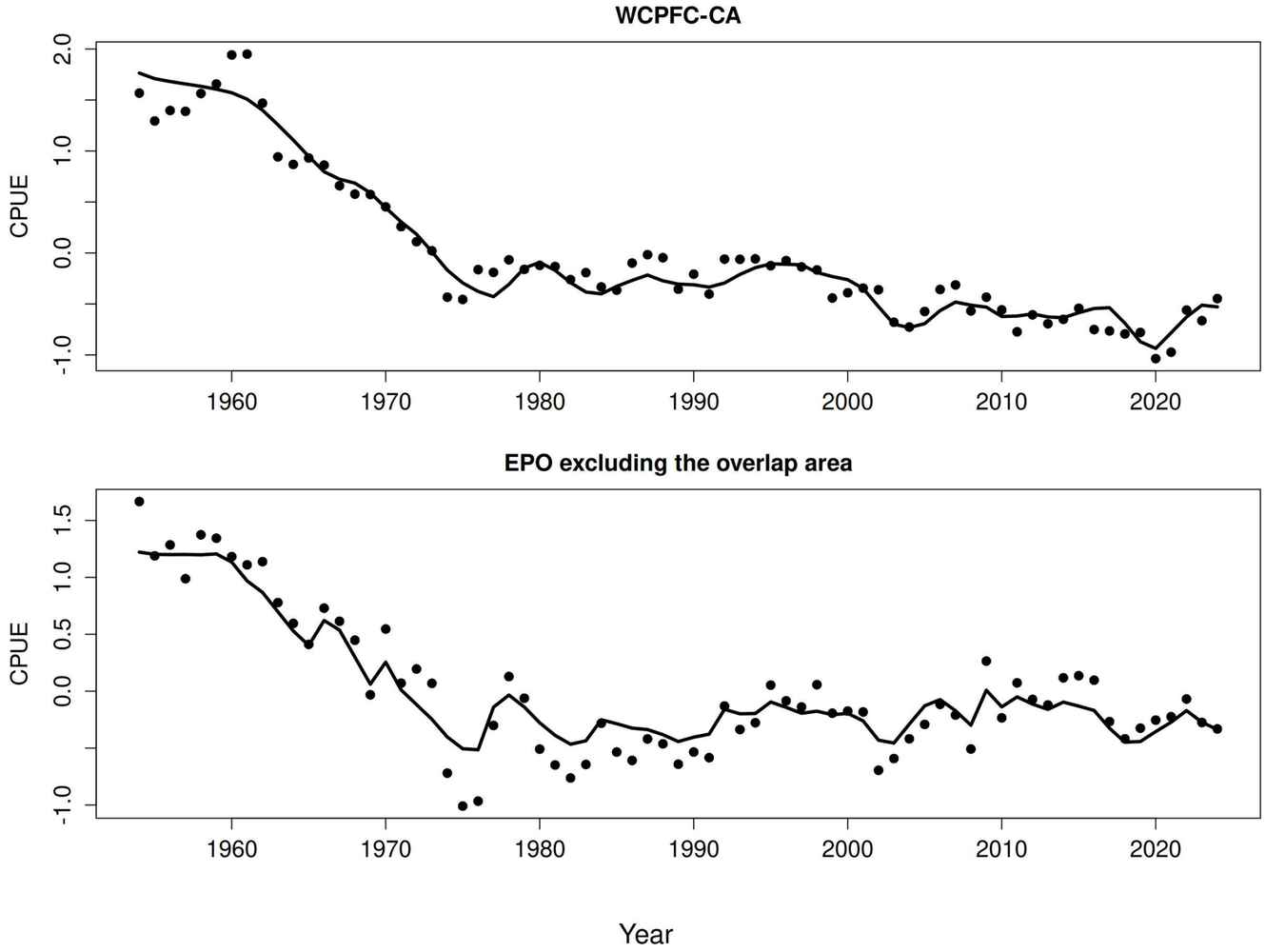


- **Standardised CPUE Indices:**
Delta-GLMM accounting for spatial, temporal, targeting (HBF), and flag effects, consistent with the approach tested during MP development.

- **CPUE indices:**
  - **WCPFC-CA:** Almost identical to the dry run, particularly in recent years.
  - **EPO:** Modest differences in the early and recent years, with no substantial overall change.

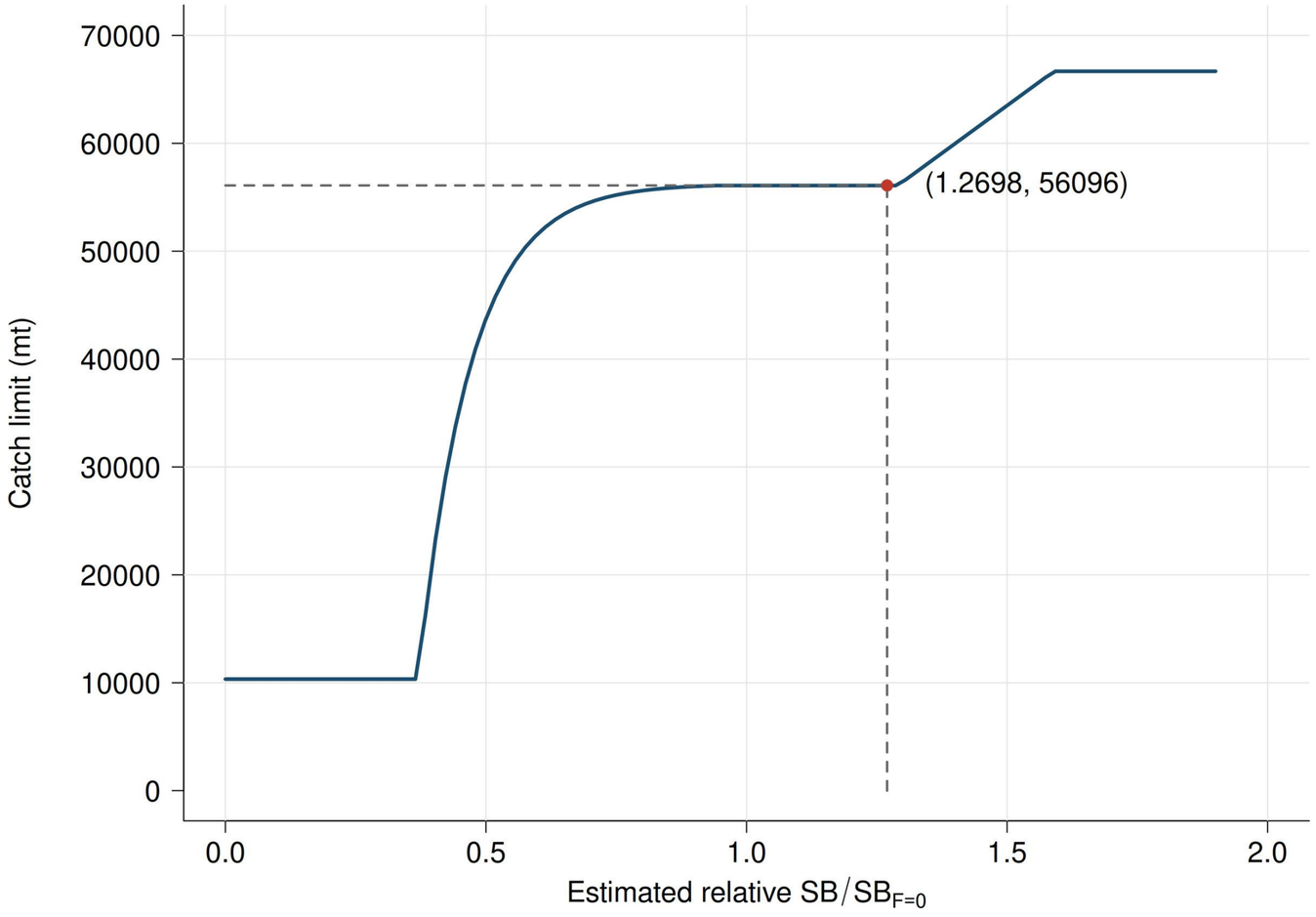
- **CVs:** Consistent with the dry run, particularly over the recent period.

Estimation Method Run



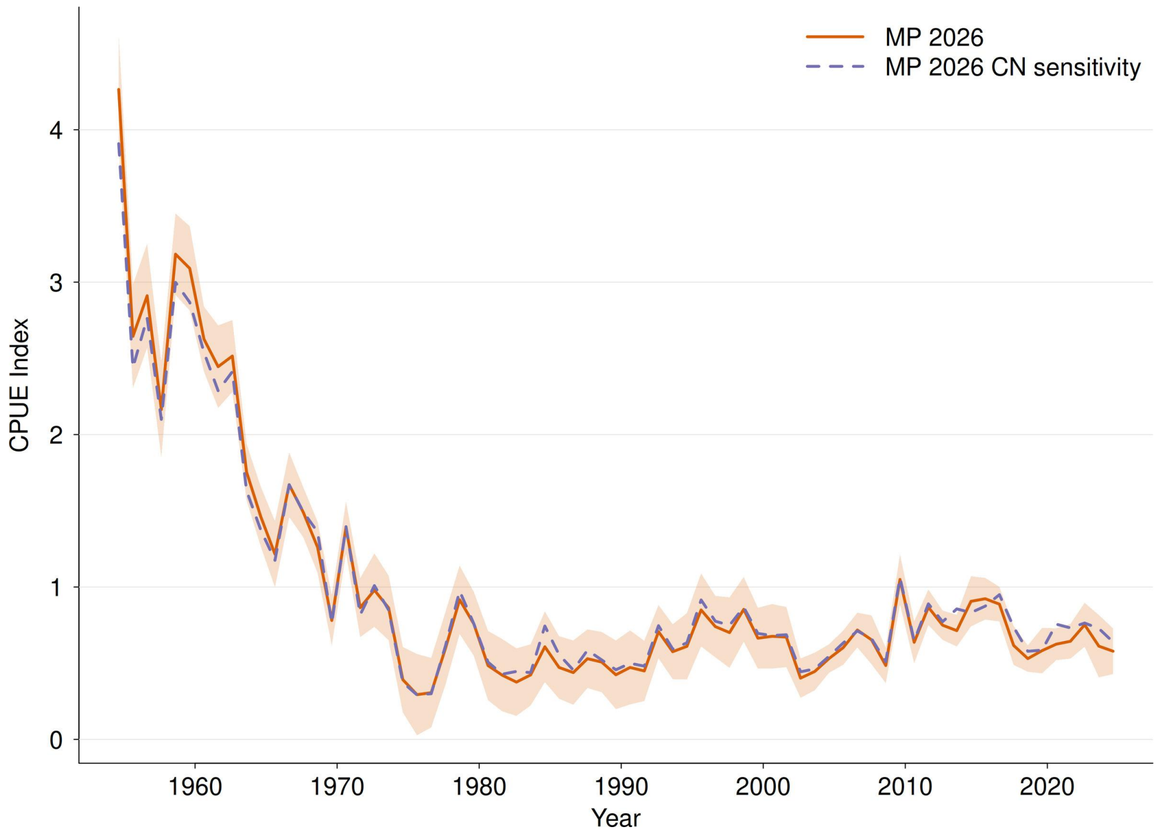
- **Model converged successfully** (maximum gradient: 8×10^{-7}).
- The input to the HCR is calculated as the ratio of mean depletion in 2022–2024 to mean depletion in 2017–2019.
- The estimated relative stock status of **1.2698**.

HCR Output



- Based on the adopted HCR, the input of 1.2698 results in a catch limit of **56,096 mt**.
- The calculated catch limit was within the meta-rule bounds (−5% to +10% of the 2024 catch), therefore, no adjustment was required.
- This catch limit would apply to longline and troll fisheries south of 10°S in the WCPFC-CA, excluding the EEZs of Tokelau and Tuvalu.

Monitoring Considerations



- **EPO data availability:** Pacific-wide Chinese operational data provision declined after China began submitting WCPFC-CA data under WCPFC requirements, reducing the representativeness of the EPO CPUE data.
- **Sensitivity test:** Operational data sampling coverage for the Chinese fleet was increased to 70% for 2014–2024 and used to re-standardise the EPO CPUE index.
- **Impact:** CPUE trends remained similar, and estimated stock status changed by less than 1% (**1.270 → 1.275**). The catch limit remained unchanged at **56,096 mt**.
- **Future Work:** A new SPC–China MOU will improve future EPO data coverage.

Conclusion

- Updated catch and CPUE inputs were broadly consistent with the dry run.
- The EM ran successfully and resulted in the estimated relative stock status of 1.2698.
- Based on the adopted HCR, the input of estimated relative stock status results in a catch limit of 56,096 mt.
- This catch limit would apply to longline and troll fisheries south of 10°S in the WCPFC-CA, excluding the EEZs of Tokelau and Tuvalu.
- Reduced availability of Chinese longline operational data in the EPO warranted study of the sensitivity of results to the EPO CPUE index. It showed minimal effects on CPUE and stock status, with no change to the catch limit. The new SPC–China MOU will improve EPO operational data coverage for future MP runs.
- The containerised workflow improves the reproducibility of the MP process.

Conclusion

We invite SC22 to:

- Note the results of the estimation method and the output of the HCR with respect to the scheduled.
- Implementation of the South Pacific albacore MP, which indicate the annual total catch in the WCPFC-CA south of 10°S for the period 2027-2029 should be set at 56,096 mt.
- Provide additional feedback as necessary through the SPA MP monitoring strategy.
- Provide advice to WCPFC23 based upon the outcomes presented in this paper.

Acknowledgement

- We gratefully acknowledge funding for this work from the New Zealand Ministry of Foreign Affairs and Trade (MFAT) funded project “Sustainable Pacific Fisheries”. We also acknowledge the contributions of SPC staff, particularly the OFP Data Management Section, for their work in preparing the data used in this analysis.

Pacific Community
Communauté du Pacifique

Thank you

www.spc.int