13TH MEETING OF THE SPRFMO SCIENTIFIC COMMITEE

Wellington, New Zealand, 8 to 13 September 2025

SC 13 – Doc 11
Data Management Update and Data Working Group Progress

Secretariat

This document provides an update on the Secretariat's progress around data management, including in anticipation of the Data Working Group (DWG) becoming operational. SC13 is invited to:

- *Note the Secretariat's progress with data management*
- *Provide feedback on the Secretariat's interim strategy*
- *Consider the need to update the over-40-year-old ISSCFG and ISSCFV codes in CMM 02-2025 Data Standards*
- *Endorse SPRFMO joining the Coordinating Working Party on Fishery Statistic (CWP), and*
- *Prioritise the appointment of a DWG Chairperson to provide leadership and accelerate Member-driven governance of SPRFMO's evolving data landscape.*

1. Introduction and Background

The effective management and utilisation of fisheries data are critical for achieving the objectives of the South Pacific Regional Fisheries Management Organisation (SPRFMO). SC12 reached consensus on the broad purpose and scope of a dedicated DWG – including its dual reporting to the Scientific Committee (SC) and Compliance and Technical Committee (CTC) – to resolve persistent data challenges such as standardization, quality control, and the integration of new data technologies. Members are yet to nominate a DWG Chairperson, therefore it is yet to meet. Despite this, the Secretariat, guided by the Data Manager, has acted pragmatically to maintain momentum and operational capability around its data functions.

2. Secretariat-Led Data Management Advances (SC12–SC13)

In the absence of a fully operational DWG, the Secretariat has developed and been implementing a phased, member-informed strategy as in **Annex 1**. The views of SC are sought on this interim strategy, for consideration and incorporation into an update to be provided to the CTC for views.

Activities have been aligned to deliver measurable deliverables, improve workflows, and demonstrate progress, as detailed below. While many data process improvements can be 'behind the scenes' or limited to system maintenance, a number of improvements being made will fundamentally improve data systems from the user-perspective of the Secretariat and Members, increasing efficiency, reducing costs and making data more usable.

2.1. Platform and Systemic Enhancements

- Combined Regional Authorised Vessels Tool (CRAVT) Full API Integration:

  CRAVT is a shared vessel database aggregating public records from multiple Regional Fisheries Management Organisations (RFMOs) and Regional Fishery Bodies (RFBs) and enables comprehensive search and filtering (by flag, vessel type, etc.). It cross-references SPRFMO-authorised vessels against other RFMO records. CTC12 noted the Commission Record of Vessels Implementation Report and

agreed to participate in the CRAVIT initiative provided that only publicly available data from the SPRFMO Record of Vessels be published. COMM13 adopted the recommendation and the Secretariat completed the end-to-end Integration of the Record of Vessels registry with the CRAVT platform:

- **Operational Impact**: Improved transparency and quality control over SPRFMO vessel records; streamlined cross-RFMO risk and compliance checks.
- **Broader Benefit**: Enhances public accessibility and interoperability of vessel data, supporting enforcement agencies and regional compliance initiatives.
- **External Link**: https://cravt.imcsnet.org/

- Transhipment API Advancements:

The Secretariat, working with SPRFMO's data service provider (Dragonfly Data Science), finalised the Transhipment API specification, deployed a testing environment with strict Excel/CSV template validation, and implemented standardized error codes for automated transhipment reporting.

- **Operational Impact**: Significantly reduces resubmission cycles and validation delays, establishing the best practice, API-first model for data submissions. The Secretariat can enforce data quality controls dynamically, while supporting ease of Member adoption.
- **Foundation for Future Initiatives**: These data pipelines create the infrastructure required for real-time monitoring of data submissions and failures—essential for scaling up to electronic monitoring (EM) systems and advanced data analytics.

2.2. Toward Real-Time Analytics and Stakeholder Dashboards

The Secretariat is developing new reporting dashboards, including member-specific and public-facing indicators (within the bounds of confidentiality rules). These tools aim to deliver timely, reliable metrics e.g., on fishing activity, catch, compliance, and performance. This has the potential to enable users to quickly and easily generate user-friendly reports. See **Annex 2** for some visuals.

The infrastructure should also provide a backbone for integrating EM data and supporting automated, near real-time reporting to stakeholders, further increasing transparency and responsiveness.

3. Maintain up to date code lists

SPRFMO aligns its data collection with FAO global standards (e.g., ASFIS species, ISSCFV vessel types, ISSCFG gear, FAO fishing areas). To preserve interoperability and smooth data exchange with other RFMOs, national programmes, and FAO systems, the Secretariat should actively monitor and promptly adopt updates from FIRMS (Fisheries Resources Monitoring System)—the FAO-hosted partnership of RFMOs and regional/national bodies that publishes authoritative, partner-validated profiles on fish stocks/fisheries and standardises metadata—and from CWP (Coordinating Working Party on Fishery Statistics)—the FAO-convened inter-agency body that harmonises fishery/aquaculture statistics by maintaining common definitions, classifications, and methods. Internally, keep code lists, templates, and validation rules synchronised; incorporate persistent identifiers where applicable; communicate change logs and migration guidance to Members/CNCPs; and proactively represent SPRFMO's specific needs within these *fora*.

3.1. ISSCFG and ISSCFV codes in CMM 02-2025 Data Standards [2]

SPRFMO's Data Standards currently use codes for fishing gear and vessels dating from 1980 and 1984 respectively. The FAO CWP has updated these codes in 2016 and 2019. Recognizing rapid advances in SPRFMO's data systems and the misalignment with FAO Standards, there is a need to review and update CMM 02-2025 Data Standards Annexes 9 and 10 to ensure operational alignment with current technologies,

data flows, and reporting practices:

- Annex 9 — International Standard Classification of Fishing Gear (ISSCFG - 29 July 1980): The Secretariat continues to use the 1980 ISSCFG gear codes, which no longer reflect modern fishing practices and create challenges in accurately classifying gear types. The absence of clear categories for certain methods—such as jigging—leads to ambiguity, with some Members reporting it under generic hand liners or just liners. This inconsistency can affect squid fishery statistics, requiring extra reconciliation during data processing and reducing comparability across the Convention Area. Adoption of the CWP 2016 codes, which provide explicit definitions and illustrations for jigging and other modern or hybrid gears, would standardise reporting and improve analytical accuracy.
- Annex 10 — International Standard Classification of Fishery Vessels (ISSCFV CWP-12, 1984): The 1984 ISSCFV vessel codes remain in use, but they do not adequately capture the diversity of modern fleets, particularly for jigging vessels targeting jumbo flying squid. These vessels are often recorded under generic longliner or liner categories due to the lack of a specific jigging vessel definition, masking their actual fishing role and capacity. This misclassification can reduce the accuracy of fleet composition analyses, complicates compliance monitoring, and limits alignment with other RFMO vessel registries. Adopting the 2019 codes, which clearly define jigging vessels alongside other specialised types, would enhance vessel data quality and improve monitoring of fishing capacity.

3.2. Updating ASFIS Codes & Strengthening CWP Engagement

SPRFMO uses ASFIS species codes to ensure consistent species identification across catch, observer, and compliance datasets. Maintained by the Coordinating Working Party on Fishery Statistics (CWP), these codes are regularly updated to incorporate new species, taxonomic revisions, and changes to FAO identifiers. Adopting the latest version—such as ASFIS_sp_2025— averts the risk of mismatched submissions, misaligned statistics, and increased manual corrections. Routine updates maintain compatibility with global reference lists, harmonisation with other RFMOs, and accuracy in scientific and compliance reporting.

SPRFMO's full membership in the CWP would strengthen this process by giving SPRFMO direct input into the development of fishery statistical standards—such as ASFIS codes, gear and vessel classifications, and data exchange protocols. This would ensure that future updates reflect the needs of high seas fisheries under the mandate of the SPRFMO. It would also provide early notice of changes, enabling smoother, faster adoption of revisions like ASFIS_sp_2025, and enhance coordination with other RFMOs.

Joining the CWP as a full member would complete SPRFMO's integration into the global fisheries statistical framework, further improving the consistency, interoperability, and credibility of data held at the Secretariat. SPRFMO is already a FIRMS partner and participates in the CWP as an observer therefore there are no additional costs of fully joining. If the SC is in agreement this will be reported to CTC for consideration and advice to COMM14.

ANNEX 1
Secretariat Interim Strategy for Advancing SPRFMO Data Management in the Absence of a Fully Operational DWG

1. Overall Strategy

While the DWG is being operationalised, the Secretariat will adopt a pragmatic, phased, and member-informed implementation approach that:

- Advances the DWG's intended outcomes, working within its anticipated mandate.
- Focuses on technical infrastructure and system upgrades already endorsed by the SC, CTC, and Commission.
- Keeps SC and CTC Chairpersons and Members informed and engaged.
- Delivers incremental, visible progress through tangible outputs, thereby supporting the long-term success of the DWG once it becomes fully operational.

2. Activities, Targets and Deliverables

2.1 Interim Coordination & Accountability Mechanism

- The Data Manager will lead the development and implementation of this strategy. He will be working with the Executive Secretary, the Science Manager and Compliance Manager in coordination with the SC and CTC chairs to ensure alignment with SPRFMO's goals, and continuity and coherence in the absence of a fully functioning DWG.
- A comprehensive review of key SPRFMO systems—including the Record of Vessels, the Vessel Monitoring System (THEMIS), catch data systems, observer data streams, and transhipment reporting tools—will be undertaken by the Secretariat. This review will evaluate the systems against operational efficiency, data flow, user access protocols, and interoperability.
- A dedicated Fisheries Information System Strategy will be developed by the Secretariat to articulate objectives, strategic alignment with SPRFMO's broader vision, and provide a framework for technical and policy implementation. As an outcome of the review, the Secretariat will identify system and governance gaps, highlight opportunities, and prioritise improvements to enhance data integrity, bolster compliance monitoring, and improve the strategic alignment of information systems.
- The Secretariat will continue to meet with its IT vendors (Dragonfly, CLS, Redstripe) to align expectations around SPRFMO's systems, emphasizing security, support responsiveness, and confidentiality obligations. Contracts and SLAs may be updated accordingly.
- At key milestones, the SC and CTC chairs will be engaged to provide progress updates and seek input as required.

2.2 Technical System and Infrastructure Improvements

Incremental upgrades will be made to the unified SPRFMO data platform to consolidate vessel registry, VMS, catch, observer, and transhipment datasets into a secure, interoperable interface with role-based access. This work will be informed by, and ultimately framed by, the review and the Secretariat's Information System Strategy. Examples of such upgrades include:

- Enhancing the data portal to support direct uploads of catch reports and supporting documentation by members and CNCPs. This will replace the current offline processes and enable faster feedback loops and corrections.
- Developing an Application Programming Interface (API) pipeline for transhipment reporting. This will facilitate near-real-time submission of transhipment notifications from fishing vessels, carrier vessels, or Flag Monitoring Centres, and support both web and mobile access.
- Developing an Observer Data API to align with SPRFMO's observer data templates, ensuring readiness for future growth in observer data submissions and integration.
- Development of automated VMS-transhipment cross-check functionality. This will involve importing VMS position data into aggregated data warehouse (into analytical) tables to produce monthly vessel activity summaries and highlight anomalies when cross-referenced with submitted catch reports.
- Implementation of user-facing dashboards to provide dynamic summaries and snapshots—such as the number of active vessels, latest received catch reports, missing submissions, and transhipment event tracking—accessible internally to Secretariat staff, secure member pages and externally to the public as appropriate and aligned with data sharing provisions.
- Development of a case log module to track and manage issues across the Secretariat's operational areas, including compliance issues (e.g., late data submissions, VMS interruptions), scientific data queries, observer follow-ups, Member/CNCP requests, and other administrative actions. Authorised Secretariat staff would record key details, timelines, and related communications, with Members and CNCPs able to view their own pending items via the secure portal. This continuous, transparent record would promote timely resolution, reduce meeting workloads, and strengthen collaboration. Over time, the logs would be analysed to build a knowledgebase, supporting historical references, trend analysis, and informed decision-making.

2.3 Member Engagement and Capacity Building

- The Secretariat will produce self-service user manuals for each module of the fisheries information system. These guides will facilitate member engagement by supporting independent usage and reducing technical queries.
- Virtual capacity-building sessions will be organized to walk Members through new or updated features. These sessions will include interactive demonstrations and allow participants to ask questions and provide feedback in real time.

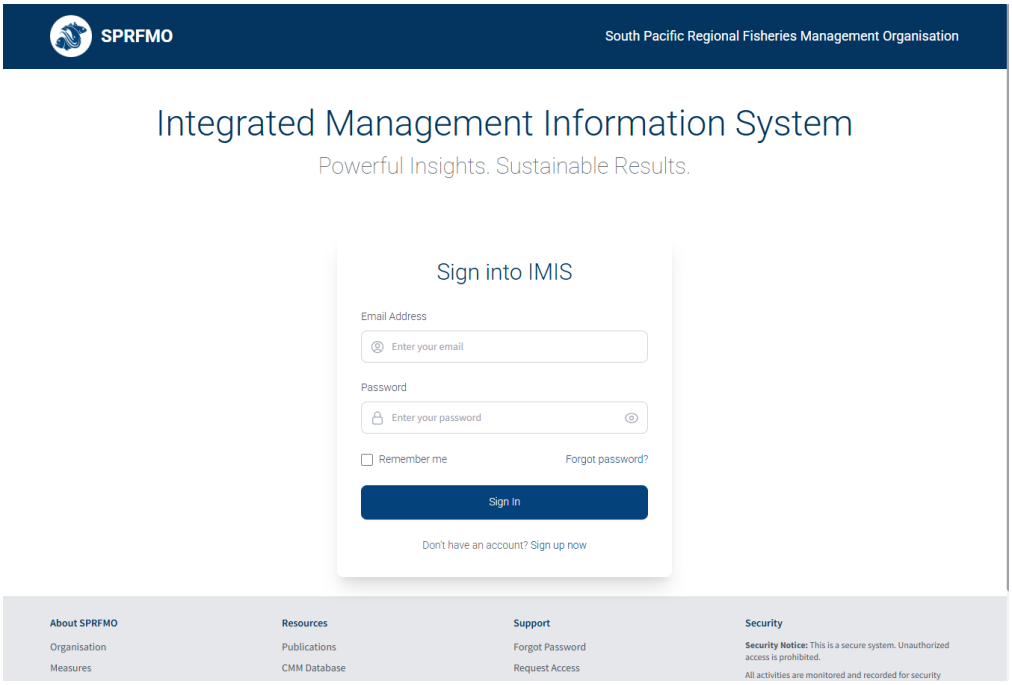
2.4 Laying the Groundwork for Future DWG Functionality

- In preparation for the DWG becoming operational, the Secretariat will also develop a draft 2-year workplan aligned with priorities identified by the SC and CTC. This workplan will provide a solid starting point for the group's inaugural efforts.

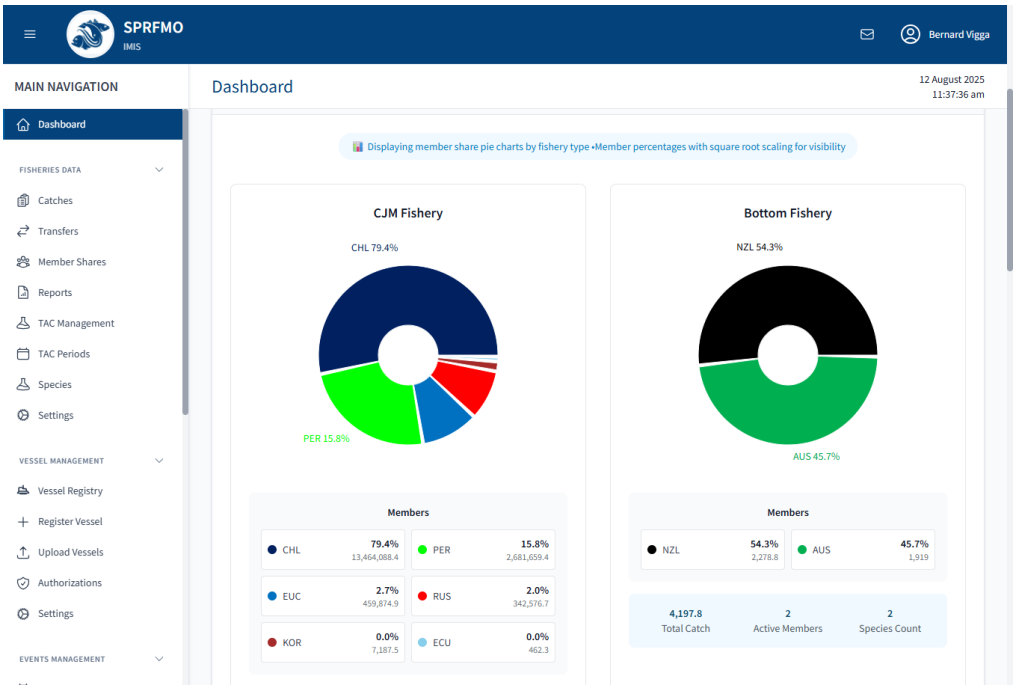
3. Reporting and Oversight

- Progress updates related to the DWG and fisheries information, and database portal development will be provided to the SC, CTC, and Commission to ensure transparency and enable feedback.
- The Secretariat will prepare an Annual Data Management Progress Report, summarizing key activities, deliverables, and areas needing formal DWG engagement or decisions once it is active.
- To ensure a smooth transition, a comprehensive handover note will be prepared for the incoming DWG Chair. This will include past decisions, context, and priorities for future work continuity.

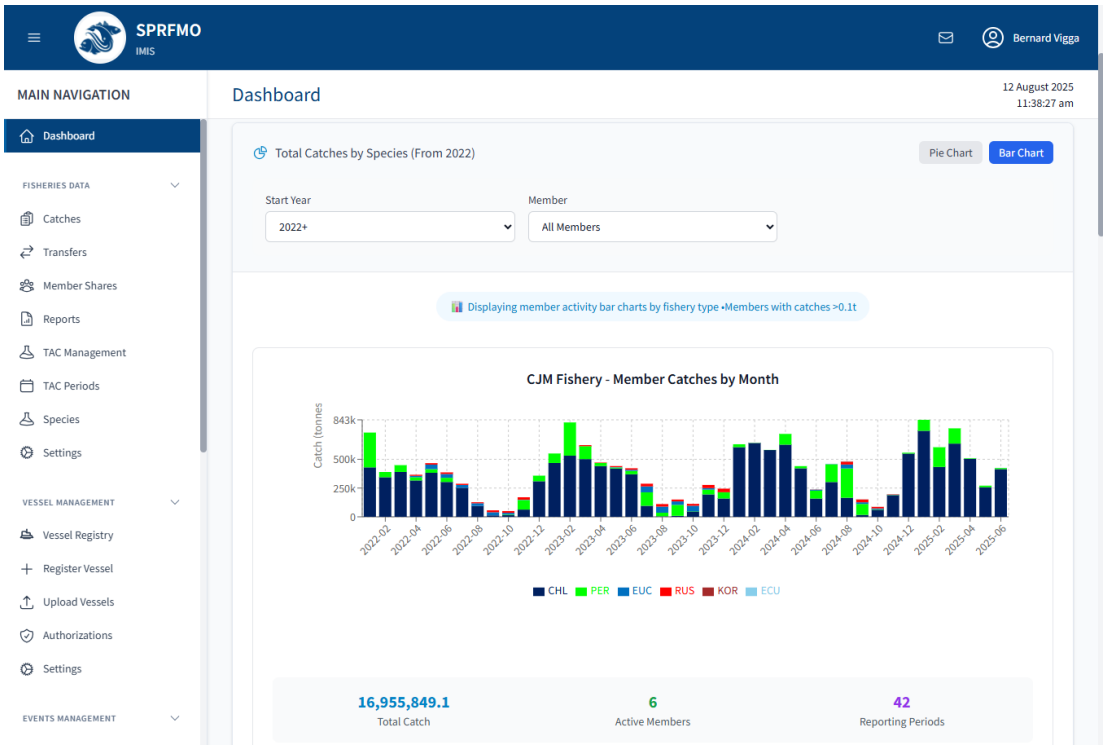
ANNEX 2
Screens from the Integrated Management Information System that is in the early stages of development



Pie chart showing catches by Participant and by Fishery



Bar chart showing catches by Participant since 2022



Quota Utilisation Screen