



**SCIENTIFIC COMMITTEE
TWENTY-FIRST REGULAR SESSION**

Nuku'alofa, Tonga
13 – 21 August 2025

Assessment of the Value of WCPFC Joining the FIRMS Partnership

WCPFC-SC21-2025/ST-WP-13

WCPFC Secretariat and SPC-OFP

I. INTRODUCTION

1. At its 2024 regular session, the Commission tasked the Scientific Committee (SC21) to assess the value of the WCPFC joining the Fisheries and Resources Monitoring System (FIRMS) Partnership and to report its findings to WCPFC22 in 2025. This paper addresses that request by providing the objectives, structure, and key information systems of the FIRMS, alongside an analysis of the implications and benefits for WCPFC should it move forward with formal partnership. The paper draws upon recent collaborative activities involving the FIRMS Secretariat, the WCPFC Secretariat, and the Oceanic Fisheries Programme of the Pacific Community (SPC-OFP). It reviews both technical feasibility and institutional readiness.

II. BACKGROUND OF THE REQUEST

2. FIRMS is a global information-sharing partnership coordinated by the Food and Agriculture Organization (FAO) of the United Nations. Its mission is to facilitate global access to standardized and authoritative information on the status and trends of fishery resources and their management. FIRMS achieves this through structured collaboration with international, regional, and national fisheries organizations, including Regional Fishery Management Organizations (RFMOs), and more broadly, Regional Fishery Bodies (RFBs). The platform supports the development of global public services, including the global Tuna Atlas (GTA), the State of the Stocks Index (SoSI), the Global Record of Stocks and Fisheries (GRSF), and the biennial State of the World Fisheries and Aquaculture (SOFIA) report.
3. Since 2007, the WCPFC has held observer status in FIRMS, reflecting its longstanding interest in harmonizing global fisheries information and the value of its stock assessment work in broader international assessments. Despite this, WCPFC has not yet become a formal Partner and therefore does not currently participate in FIRMS governance or contribute structured metadata to FIRMS products.

4. In preparation for the 14th session of the FIRMS Steering Committee (FSC14), held from June 30 to July 4, 2025, in Copenhagen, WCPFC was listed as a prospective new partner alongside other organizations, such as the Comisión Técnica Mixta del Frente Marítimo (CTMFM) and the Organisation for Economic Co-operation and Development (OECD). In advance of FSC14, the FIRMS Secretariat collaborated closely with staff from SPC-OFP and the WCPFC Secretariat to draft an inventory of WCPFC-managed stocks. This included species jointly assessed through the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC), which is structured to align with FIRMS metadata standards and is compatible with the SoSI and GRSF frameworks.
5. This preparatory work demonstrated that WCPFC's public stock status information can be mapped to the FIRMS formats. Still, it also identified areas needing clarification, including responsibility for reporting on jointly assessed stocks and institutional coordination. The FAO has encouraged continued dialogue and technical collaboration, highlighting that WCPFC is well-positioned to join FIRMS with modest additional effort.

III. STRUCTURE AND FUNCTION OF FIRMS

3.1 Overview

6. FIRMS is a voluntary partnership that enables participating organizations to contribute structured summaries of fishery resource status, management measures, and associated metadata. It was established in 2004 under the auspices of the FAO and operates under its Fisheries and Aquaculture Division. FIRMS partners include RFMOs, RFBs, technical organizations, and national fisheries institutions. The details of the FIRMS partnership as of today are provided in **Attachment A**. The partnership is governed by the FIRMS Steering Committee, which sets strategic directions and work plans and oversees adherence to agreed reporting standards.
7. Rather than collecting new data, FIRMS compiles validated summaries provided by its partners, harmonizes them through agreed metadata standards, and publishes them in user-friendly formats through the FIRMS web platform. This ensures transparency and comparability across regions and jurisdictions, facilitating integration with other FAO-led information systems.

3.2 Core Objectives

8. FIRMS has three core objectives: first, to provide access to reliable and authoritative information on the global status and trends of fishery resources through harmonized summaries; second, to standardize metadata structures and reporting formats across contributing organizations, thereby supporting consistency and interoperability; and third, to enable aggregation of regional and national information into global reference products such as SOFIA and SoSI. In doing so, FIRMS directly supports FAO's global monitoring obligations, including those related to the Sustainable Development Goals (SDGs), specifically SDG 14.4.1, which focuses on the sustainability of fish stocks.

3.3 Key Information Systems

9. FIRMS maintains several integrated systems:

- The State of the Stocks Index (SoSI) compiles standardized stock status data from partner organizations and classifies stocks based on sustainability criteria (e.g., sustainable, overfished, subject to overfishing).
- The Global Record of Stocks and Fisheries (GRSF) assigns Universally Unique Identifiers (UUIDs) to fish stocks and management units to improve traceability and support digital workflows across institutions.
- The Global Tuna Atlas (GTA) aggregates spatially resolved tuna catch data from tuna RFMOs and provides analytical tools to visualize trends in catches and effort. These systems work together to support transparent reporting and facilitate access to information for decision-makers, researchers, and the general public.

3.4 Governance

10. The FIRMS Steering Committee is the primary decision-making body, composed of all formal partners. It is responsible for approving new memberships, developing and updating technical standards, and reviewing partner contributions. Subgroups and technical working groups convened under the Steering Committee address specialized topics, including metadata architecture, UUID integration, and geospatial data protocols. Governance decisions are consensus-based, and all partners contribute to the strategic planning of FIRMS work programs.

IV. WCPFC ENGAGEMENT TO DATE

11. As an observer, WCPFC has participated in selected FIRMS activities and has collaborated with FAO through the Global Tuna Atlas. The WCPFC Secretariat and SPC-OFP have previously provided technical input and feedback on metadata templates and reporting protocols. Prior to FSC14, FAO prepared a draft stock inventory for WCPFC using publicly available stock status reports. This exercise demonstrated compatibility between WCPFC reporting and FIRMS standards, while also highlighting the need to clarify responsibilities for joint stock assessments, such as those for Pacific bluefin tuna, which are shared with IATTC and ISC.
12. WCPFC has not yet expressed a formal interest in establishing a FIRMS Partnership. Rather, the Commission has tasked SC21 to assess the potential value and implications of such a partnership before making a decision. In anticipation of this assessment, preparatory work was undertaken by the FIRMS Secretariat, in collaboration with SPC-OFP and the WCPFC Secretariat, to test the compatibility of WCPFC stock information with FIRMS data structures. SPC-OFP's ongoing modernization of its internal data architecture is expected to further support potential future alignment with FIRMS standards and improve automation in data submissions, should WCPFC choose to proceed.

V. ASSESSMENT OF THE VALUE OF WCPFC JOINING FIRMS

5.1 Strategic and Global Visibility

13. Joining the FIRMS would raise WCPFC's profile in global fisheries governance and demonstrate its commitment to transparency and science-based decision-making. Contributions to SoSI and SOFIA would ensure that WCPFC assessments are accurately represented in widely used global references, helping convey the outcomes of its conservation and management measures. It would also support visibility among international partners, donors, and sustainability-focused organizations.

5.2 Data Harmonization and Capacity Building

14. Formal engagement with FIRMS would reinforce harmonization between the WCPFC and other RFMOs, simplifying cross-comparison of data and facilitating regional collaboration. Adopting shared metadata standards would strengthen WCPFC's internal data systems, especially in areas such as stock unit definitions, status classification schemes, and spatial representation. FIRMS partners often benefit from technical assistance from FAO, which could support capacity building and streamline WCPFC's transition into the FIRMS system.

5.3 Support for Scientific and Compliance Work

15. FIRMS tools such as UUIDs and the GRSF database support traceability, allowing linkages between stock assessments, management decisions, and compliance reporting. For WCPFC, this could strengthen science-policy integration and improve traceability in catch documentation schemes. Additionally, clarifying management unit attributes through FIRMS metadata can facilitate compliance reviews and cross-institutional coordination, particularly for stocks that are jointly assessed with other bodies.

5.4 Institutional Considerations

16. Becoming a FIRMS partner entails formalizing a Partnership Arrangement with FAO, designating a focal point for coordination, and establishing institutional workflows for metadata validation and submission. SPC-OFP and WCPFC will need to coordinate to ensure clarity in their respective roles, particularly for stock assessments handled externally (e.g., by ISC). While initial capacity development may be required, the WCPFC Secretariat has indicated that modernization efforts currently underway will likely reduce long-term reporting burdens.
17. In terms of ongoing responsibilities, formal partners are expected to participate in the bi-annual FIRMS Steering Committee meetings, prepare and submit data for the biennial FIRMS data call, and annually update the stock status and management template. These requirements are not extensive, but it is important to ensure that members understand the expected level of engagement and administrative effort that accompanies full partnership.

5.5 Potential Challenges

18. The primary challenges are institutional and operational. Coordination with ISC and IATTC on shared stocks will require agreement on reporting responsibility and data versioning. Resource constraints, particularly in terms of staff time and technical support, may impact the ability to meet periodic FIRMS data calls and participate in working groups. However, these challenges are not unique to WCPFC and have been addressed successfully by other FIRMS partners through phased implementation strategies and targeted capacity-building support.

VI. CONCLUSION AND RECOMMENDATIONS

19. FIRMS offers a mature, globally respected platform for the structured and transparent sharing of fishery resource information. The WCPFC is well-positioned to accede to FIRMS, with public data products, internal expertise, and institutional relationships already aligned with key FIRMS

principles. Formal partnership would solidify WCPFC's role in global fisheries governance and enhance the visibility, accessibility, and credibility of its scientific outputs.

20. By joining FIRMS, WCPFC would not only improve its contributions to global transparency and sustainability but also enhance its internal systems and collaborative capacity, supporting its mission of responsible, science-driven management of marine resources.

21. SC21 is invited to:

- Review the structure, mandate, and functioning of FIRMS as described in this paper.
- Note the preparatory work completed by FIRMS, SPC-OFP, and the WCPFC Secretariat toward aligning WCPFC reporting with FIRMS standards.
- Consider the strategic and operational value of WCPFC joining FIRMS.
- Recommend to the Commission whether WCPFC should pursue the FIRMS Partnership in 2025 and under what terms (e.g., phased implementation, coordination with ISC).
- Encourage continued capacity-building and collaboration with FAO and FIRMS partners, including participation in the SoSI process, standardization of metadata, and integration of GRSF.

The current list of FIRMS' Partners, collaborating institutions, and observers are listed below. (Source: [Mission and partners - Pages](#))

The Partners

1. Bay of Bengal Programme - Inter-Governmental Organisation (BOBP-IGO)
2. Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
3. Commission for the Conservation of Southern Bluefin Tuna (CCSBT)
4. EU Directorate-General Maritime Affairs and Fisheries (DG MARE)
5. Food and Agriculture Organization of the United Nations - Fisheries and Aquaculture Division
6. Fisheries Committee for the West Central Gulf of Guinea (FCWC)
7. General Fisheries Commission for the Mediterranean (GFCM)
8. Inter-American Tropical Tuna Commission (IATTC)
9. International Commission for the Conservation of Atlantic Tunas (ICCAT)
10. International Council for the Exploration of the Sea (ICES)
11. Indian Ocean Tuna Commission (IOTC)
12. Northwest Atlantic Fisheries Organization (NAFO)
13. North Atlantic Salmon Conservation Organization (NASCO)
14. North East Atlantic Fisheries Commission (NEAFC)
15. North Pacific Fisheries Commission (NPFC)
16. Southeast Asian Fisheries Development Center (SEAFDEC)
17. Southeast Atlantic Fisheries Organization (SEAFO)
18. South Indian Ocean Fisheries Agreement (SIOFA)
19. South Pacific Regional Fisheries Management Organisation (SPRFMO)

Collaborative Institutions

The following organizations signed the FIRMS Collaborative Arrangement:

1. Foundation for Research and Technology – Hellas (FORTH)
2. Institut de Recherche pour le Développement (IRD)
3. Sustainable Fisheries Partnership (SFP)

The following institution signed a Letter of Intent:

4. University of Washington (UW)

D4Science Data Infrastructure under the FAO - CNR MoU on iMarine

5. National Research Council of Italy (CNR) - ISTI

Observers

The following organizations are observers in the context of the FIRMS partnership:

1. Benguela Current Commission (BCC)
2. Comisión Técnica Mixta del Frente Marítimo (CTMFM)
3. International Whaling Commission (IWC)

4. North Atlantic Marine Mammal Commission (NAMMCO)
5. Organisation for Economic Co-operation and Development (OECD)
6. Permanent Commission for the South Pacific (CPPS)
7. Secretariat of the Pacific Community (SPC)
8. Western and Central Pacific Fisheries Commission (WCPFC)