Shared Data, Shared Goals: A Review of APEC and Metacoalition Engagement with FAO Data-sharing Platforms

Supply Chain Risk Project: Transparency Review

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List of Acronyms

AIS   Automatic Identification System

APEC   Asia-Pacific Economic Cooperation

API   Application Programming Interface

FAO   Food and Agriculture Organization of the United Nations

GDST   Global Dialogue on Seafood Traceability

GIES   Global Information Exchange System

GSSI   Global Sustainable Seafood Initiative

GTA   Global Tuna Alliance

IMO   International Maritime Organization

ISSF   International Seafood Sustainability Foundation

IUU   Illegal, Unreported, and Unregulated

MMSI   Maritime Mobile Service Identity

PSMA   Port State Measures Agreement

RFMO   Regional Fisheries Management Organization

SCRP   Supply Chain Risk Project

SeaBOS   Seafood Business for Ocean Stewardship

UVI   Unique Vessel Identifier

VMS   Vessel Monitoring System

VOSI   Vessels in Other Sustainability Initiatives

Executive Summary

The goal of the Supply Chain Risk Project (SCRP) is to encourage coordinated actions between the private and public sectors to share vessel-level data to foster transparent supply chains, streamline data-sharing, and support stronger interventions to reduce illegal, unreported, and unregulated (IUU) fishing. Through the development of SCRP, the team has identified clear gaps in the sharing of vital fishing vessel-level information, particularly between public and private sector stakeholders.

To help close these gaps, and improve vessel-level transparency, the SCRP team is promoting engagement between the Metacoalition, a group of six coalitions of organizations that have private seafood sector participants, and the APEC (Asia-Pacific Economic Cooperation) Economies using three Food and Agriculture Organization of the United Nations (FAO) global data-sharing platforms: the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (Global Record), the Port State Measures Agreement (PSMA) Applications for Designated Ports and Contact Points, and the PSMA Global Information Exchange System (GIES), which has been adopted and will be fully operationalized at the beginning of 2024.

The objective of this Review is to provide a snapshot of the level of engagement of APEC Economies and seafood sector participants of one or more of the Metacoalition

organizations with the currently operating FAO Global Record and PSMA Applications for Designated Ports and Contact Points, and provide suggestions for how to improve the effectiveness and uptake of these platforms. To conduct this analysis, the SCRP team collected publicly available data on the two platforms to understand APEC Economies' use of the platforms, and conducted interviews with leaders of the coalitions that make up the Metacoalition and surveys with private sector participants within those coalitions to understand seafood sector interactions with the platforms.

Based on these findings, we suggest the following next steps:
1. **APEC Economies should align with industry to combat IUU fishing by making vessel data available on the FAO Global Record and actively joining the full operationalization of the GIES.**
2. **Data-sharing should be streamlined through improved data standardization and interoperability to address the capacity and enforcement needs of both industry and APEC Economies.**
3. **APEC Economies and the Metacoalition should engage with FAO to communicate specific user needs in order to foster Global Record improvements, promote integration into data workflows, and support operationalization of GIES.**

By prioritizing transparency of vessel information and activities in these FAO platforms, invested stakeholders can continue to make progress in verifying data and support actions to reduce IUU fishing.

Introduction

The Supply Chain Risk Project (SCRP) is a partnership among the Friends of Ocean Action at the World Economic Forum, FishWise, Global Fishing Watch, and the Stanford Center for Ocean Solutions. The project aims to identify coordinated actions that could be taken by the public and private sectors to foster greater transparency of vessel-level data across supply chains, streamline data-sharing, and support stronger interventions to reduce illegal, unreported, and unregulated (IUU) fishing. Through the development of SCRP, the team found a clear and critical need for seafood companies to map supply chains back to source vessels ("know your vessels") to support more robust risk assessment and due diligence efforts. However, the private sector depends on government issued vessel lists to collect or verify vessel-level information, and this information is often not widely available, sufficiently detailed, or up-to-date, contributing to information gaps in supply chains. Data-sharing collaborations between public agencies and the seafood sector are necessary to close these gaps and improve fisheries transparency globally.

Metacoalition's Call for Action

To promote public-private collaborations, the SCRP worked with the Metacoalition,[1] a group of six coalitions that work with seafood sector members operating globally, to write an open letter to the APEC (Asia-Pacific Economic Cooperation) Economies in May 2023.[2,3] The letter, entitled "A Call for Action to Combat IUU Fishing in the Pacific", asks APEC Economies "to commit to robust, coordinated, and consistent implementation of Port State Measures Agreement (PSMA)" by sharing information relevant to fisheries on three global data-sharing platforms (**Table 1**) developed by the Food and Agriculture Organization of the United Nations (FAO). Of the three, the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (Global Record) and the PSMA Applications for Designated Ports and Contact Points are already in operation, while the PSMA Global Information Exchange System (GIES) was adopted by Parties to the PSMA in May 2023 and will be operational at the start of 2024.

Although 14 out of 21 APEC Economies have ratified the PSMA,[4] their adoption of the FAO platforms to share data, and consequently implementation of the PSMA, has lagged. There is an opportunity for coordinated implementation by APEC Economies across the Pacific region, and APEC is already highlighting exchange of information and engagement with the private sector as key to addressing IUU fishing in the Asia-Pacific region through its Roadmap on Combating IUU Fishing.

Considering the varying usage of the FAO data-sharing platforms, **the objective of this Review is to provide a snapshot of the current engagement of APEC Economies and the Metacoalition with the FAO Global Record and PSMA Applications for Designated Ports and Contact Points, and to provide suggestions on how to improve the effectiveness and uptake of these platforms.**

Table 1: Information on data-sharing platforms developed by FAO

The Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (Global Record)	PSMA Applications for Designated Ports and Contact Points	PSMA Global Information Exchange System (GIES)
Publicly available data-sharing platform for vessel-level data about fishing and fishing-related vessels **(FAO Global Record).**	Publicly available data sharing platform for countries to list designated ports and national contact points that adhere to PSMA specifications **(FAO PSMA).**	Data-sharing platform that assists in the implementation of PSMA to prevent IUU fishing products from entering markets by holding data on port entry and denials, use of foreign-flagged vessels, and inspection reports. As of October 2023 the platform is in a pilot phase and was not included in our analysis **(FAO PSMA GIES).**

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[1] Metacoalition members include: Global Dialogue on Seafood Traceability (GDST), Global Sustainable Seafood Initiative (GSSI), Global Tuna Alliance (GTA), International Seafood Sustainability Foundation (ISSF), Seafood Business for Ocean Stewardship (SeaBOS), and Sea Pact.
[2] APEC Economies: Australia, Brunei Darussalam, Canada, Chile, People's Republic of China, Hong Kong, Indonesia, Japan, Republic of Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, Singapore, Chinese Taipei, Thailand, USA, and Vietnam.
[3] Since then, the Metacoalition organization SeaBOS, which represents nine of the largest seafood companies in the world, released a letter to APEC Economies calling for endorsement of the Call for Action.
[4] Beyond APEC, there are other States in the Pacific implementing Port State Measures to the PSMA operating standard.

Methodology

This Transparency Review aims to answer the following questions:

1. To what extent do APEC Economies currently engage with two FAO data-sharing platforms (Global Record and PSMA Applications for Designated Ports and Contact Points)?

2. How do leads of Metacoalition coalitions and industry participants engage with the FAO data-sharing platforms?

In this Review, for question one we define engagement as the extent to which APEC Economies have uploaded vessel-level data to the FAO Global Record and PSMA Applications. GIES was excluded from our analysis because it is still in a pilot phase and will not be in operation until 2024. For question two, we define engagement according to whether coalition leads of the Metacoalition or industry participants use the FAO Global Record in their internal business processes.

APEC Economies' Engagement with FAO Platforms

The methods used to assess the engagement of APEC Economies were influenced by the challenges encountered when retrieving data from the FAO Global Record (similarly noted by the EU IUU Fishing Coalition July 2022 Global Record Report[5]). There is no publicly available option in the Global Record user interface to either export all data for a vessel list or finely filter vessel data for each APEC Economy. To comprehensively capture the extent to which an APEC Economy has uploaded data to the Global Record would therefore be very time intensive and require manually extracting information for each individual vessel. In a similar analysis of data availability on the Global Record by the EU IUU Fishing Coalition, the authors noted that this need to manually extract information "limits the likelihood of competent authorities or industry stakeholders using the Global Record. It is unlikely that these actors have the

resources available to perform an analysis at this level of detail. [...] Public access is available on an individual search basis only."

To answer our questions within these data export restrictions, we randomly sampled 10 vessels from each APEC Economy,[6] and recorded the presence or absence of any data within the registration, authorizations, ownership, and identification data fields of the Global Record (**Tables 2** and **3**), which are the categories identified as important in the Metacoalition's Call for Action.[7] Though only a small sample, this analysis provides a useful glimpse into data availability.

Information from the PSMA Applications for Designated Ports was compiled manually to create a list of designated ports, and evaluated for whether a contact point for each APEC Economy was listed (**Table 4**).

Metacoalition's Engagement with FAO Platforms

The FAO data-sharing platforms aim to provide an interface for data suppliers and users. As there is no mechanism to record or extract user engagement information directly from the data-sharing platforms, to better understand how users are interacting with the platforms, we collected perspectives from the seafood industry through interviews with coalition leads and surveys with industry participants in the coalitions that comprise the Metacoalition.

Semi-structured interviews were conducted by the SCRP team with all six leads of the Metacoalition groups in August 2023. Feedback from these interviews informed the seven-question survey that was subsequently sent to the six coalition leads to distribute to industry participants in September 2023. The survey platform recorded 17 responses anonymously. The results presented in this report are aggregated across all the coalitions. Due to the small sample size, industry participant survey results should not be considered representative of the entire Metacoalition.

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[5] EU IUU Fishing Coalition (2022). *The FAO Global Record of Fishing Vessels: A tool for the EU to champion fisheries transparency globally.* p 13.
[6] Hong Kong and the Republic of China (Taiwan) are not recognized by the United Nations and thus not included in FAO's Global Record, PSMA Applications for Designated Ports, or PSMA Global Information Exchange System.
[7] A Call for Action to Combat IUU Fishing in the Pacific (2023) https://www3.weforum.org/docs/WEF_Meta_Coalition_statement_2023.pdf; Activity Overview was not included in our analysis as GIES is planning to populate these data fields and is still in a pilot phase.

Table 2. Information recorded on the FAO Global Record

Data contained within the FAO Global Record is grouped by category followed by field

Category	Field	Data
Vessels	• Identification	Vessel Name, Vessel Name in Latin Characters, UVI, MMSI, VMS Indicator, VMS Type, VMS Details, AIS Indicator, AIS Details, External Markings
	• Regional Identification	--
	• Ownership	Owner Name, Owner Nationality, Owner IMO Company Number, Owner Address or Contact Details
	• Operator / Manager	Operator / Manager Name, Operator / Manager Nationality, Operator / Manager IMO Company Number, Operator / Manager Address or Contact Details
	• Beneficial Owner	Beneficial Owner Name, Beneficial Owner Nationality, Beneficial Owner IMO Company Number, Beneficial Owner Address or Contact Details
	• Pictures	Picture
	• Registration	Current Flag State, Current Flag State Registration Date, National Registration Number, Registration Port, Vessel Type, Operational
	• Dimensions	Length Overall (LOA, m), Length Between Perpendiculars (LBP, m), Registration Length (m), Beam / Extreme Breadth (m), Moulded Depth (m), Draught (m), Deadweight (t), Net Tonnage (NT), Net Registered Tonnage (NRT), Gross Tonnage (GT), Gross Registered Tonnage (GRT), Power of Main Engine(s), Hull Material, Fish Hold Capacity (m³), Fish Hold Type
History	• Construction	Year of Construction, Country of Construction
	• Flag	Flag History
	• Name	Name History
	• Owner	Owner History
	• Operator / Manager	Operator / Manager History
Authorizations	• Authorizations	Authorizations
Compliance	• Inspection and Surveillance	Inspection and Surveillance
	• Port Denials	Port Denials
IUU Listings	• IUU Listings	IUU Listings

Results

APEC Economies' Engagement with FAO Platforms

Global Record

When the SCRP team assessed the engagement of APEC Economies with FAO data-sharing platforms in June 2023, over half (62%) of APEC Economies had some kind of publicly available data on the FAO Global Record (**Table 3**). The data field most frequently provided by APEC Economies was vessel identification, with vessel name the most commonly provided piece of data. The second most provided data field was vessel registration (although registration numbers are not standardized and formats vary across APEC Economies). No data was available for the Authorizations or IUU fishing listings categories. However, in the future these categories may be populated from the FAO GIES.[8]

Table 3: Availability of data in vessel registration, vessel ownership, and vessel identification fields on the Global Record by APEC Economies as of June 2023[6]. See **Table 2** for details on categories, fields and data within the Global Record; -- indicates no data was shared, "all sampled vessels" is 10 sampled vessels had data for that field, "some sample vessels" is a portion of the 10 sampled vessels had data for that field

APEC Economy	# of Vessels	Vessel Registration	Vessel Authorizations	Vessel Ownership	Vessel Identification
Australia	84	some sampled vessels	--	some sampled vessels	some sampled vessels
Brunei Darussalam	--	--	--	--	--
Canada	114	some sampled vessels	--	--	some sampled vessels
Chile	159	some sampled vessels	--	--	some sampled vessels
People's Republic of China	1529	--	--	--	some sampled vessels
Indonesia	219	--	--	--	some sampled vessels
Japan	704	--	--	--	some sampled vessels
Republic of Korea	250	--	--	--	some sampled vessels
Malaysia	--	--	--	--	--
Mexico	--	--	--	--	--
New Zealand	61	some sampled vessels	--	--	some sampled vessels
Papua New Guinea	--	--	--	--	--
Peru	104	some sampled vessels	all sampled vessels	--	all sampled vessels
Philippines	96	some sampled vessels	--	--	some sampled vessels
Russia	--	--	--	--	--
Singapore	1	all sampled vessels	--	--	all sampled vessels
Thailand	7	some sampled vessels	--	--	some sampled vessels
USA	7164	--	--	--	some sampled vessels
Vietnam	--	--	--	--	--

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[8] Sixth Meeting of the Global Record Informal Open-Ended Technical and Advisory Working Group (GRWG6). Rome, Italy, 2022. Discussion Items, UN Document. https://www.fao.org/3/cc3439en/cc3439en.pdf

It is unknown and unclear whether the APEC vessel lists on the Global Record are comprehensive or actively updated, making informed and timely analysis challenging.

PSMA Applications for Designated Ports and Contact Points

The FAO PSMA Applications for Designated Ports and Contact Points contains designated port names for over half the APEC Economies (57%), with 67% of APEC Economies listing their designated port contact (**Table 4**).

The APEC Economies engaging with the Global Record and PSMA Applications for Designated Ports and Contact Points are predominantly those that have ratified the PSMA. However, although over half of APEC Economies are engaging with the Global Record, the general usefulness of the available data is insufficient to trace supply chains to the vessel level and assess IUU fishing risk. To be valuable to data users, APEC Economies need to provide more complete vessel-level data. The data also needs to be regularly updated.

Metacoalition's Engagement with FAO Platforms

Of the 17 seafood sector respondents, 5 stated they had engaged with FAO platforms: 3 reported using the Global Record, 1 reported using the PSMA Applications for Designated Ports and Contact Points, and 1 reported using both Global Record and PSMA Applications for Designated Ports and Contact Points, indicating that there is some adoption of the three FAO data platforms to access vessel information. Based on the survey results, most respondents are not actively interacting with global vessel transparency platforms and, when they do, the most common platforms referred to are Regional Fisheries Management Organization (RFMO) vessel authorization lists. Via open-text survey responses, respondents expressed the view that governments could assist them in understanding if they are involved in IUU fishing by bolstering data transparency and access to updated data. Survey respondents also noted the need for increased enforcement and surveillance of existing conventions and regulations by governments, access to official IUU fishing vessel lists, and simplification and coordination of data-sharing requirements. Respondents explained that the effective identification of IUU fishing vessels is nearly impossible without government enforcement of existing regulations.

During the interviews, when coalition leads were asked about engagement with the Global Record, they reported four main points:
1. confusion and lack of guidance around its use;
2. capacity and resource issues for small- and medium-sized companies to integrate it into their data systems;
3. insufficient data quantity, standardization, and validation for industry use; and
4. inability of APEC Economies that are not members of FAO, such as Chinese Taipei and Hong Kong, to engage with the Global Record.

These insights indicate the need for easily accessible and interoperable data systems that can readily share more detailed vessel information without the need for substantial capacity investment. On their side, many seafood industry members have progressed vessel-level transparency and data-sharing by joining organizations, such as those involved in the Metacoalition, and supporting industry standardization via the Global Dialogue on Seafood Traceability (GDST) and tuna specific vessel lists like the ISSF's Proactive Vessel Registry (PVR) and Vessels in Other Sustainability Initiatives (VOSI).

The SCRP team highlights these findings as an opportunity to leverage the seafood sectors' initial interactions with the FAO data-sharing platforms and inform future public-private dialogue, with the aim of aligning goals and increasing both industry use and data-sharing by APEC Economies. The FAO data platforms have the potential to underpin future public-private collaboration to fight IUU fishing, but only if the data is high quality and meets the needs of companies to trace and assess their supply chains.

Table 4: FAO PSMA Applications for Designated Ports and Contact Points Information Shared by APEC Economies as of June 2023[6].

APEC Economy	# of Ports Listed	Designated Port Contact Listed?
Australia	59	Yes
Brunei Darussalam	0	No
Canada	28	Yes
Chile	8	Yes
People's Republic of China	0	No
Indonesia	4	Yes
Japan	47	Yes
Republic of Korea	31	Yes
Malaysia	0	Yes
Mexico	0	No
New Zealand	12	Yes
Papua New Guinea	0	Yes
Peru	5	Yes
Philippines	2	Yes
Russia	0	No
Singapore	0	No
Thailand	26	Yes
USA	"all"	Yes
Vietnam	14	Yes

Next Steps

1. **APEC and seafood sector alignment:** To combat IUU fishing, APEC Economies should align with the seafood sector by making vessel data available on the FAO Global Record and actively join the full operationalization of the GIES. Public-private fora for communication are vital to align priorities and capitalize on existing efforts. Given the plethora of tools currently in use or under development, the seafood industry faces challenges in discerning which tool is most appropriate for their specific needs. By emphasizing vital vessel data and maintaining up-to-date FAO data-sharing platforms, APEC Economies can provide the seafood industry the transparent vessel details it needs to improve the verification of supply chain traceability data. As the APEC Roadmap on Combatting IUU Fishing calls out, there is also a need for APEC Economies and industry members to work together. The level of vessel transparency required to confidently assess and combat IUU fishing cannot happen without effective PSMA (or PSM consistent with the operating standards of the PSMA implementation) and supporting regulations. These regulations should be informed by industry, build on existing efforts, and address known data gaps. To do this effectively, the Metacoalition should continue to identify opportunities to work with governments to help implement the PSMA in regions important for the supply chains of industry participants.
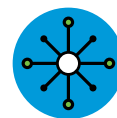
   APEC Economies should prioritize adding vessel information to the Global Record in a standardized format, and, starting in 2024, support the full operationalization of GIES. Priority vessel information includes:

   • **vessel identity information** (vessel name, UVI [such as IMO], MMSI, call sign,[9] national registration number, vessel type, current flag state, and authorizations) and

   • **vessel activity information** (VMS indicator, VMS type, VMS details, AIS indicator, and AIS details).

   By focusing on making the data needed by industry to eliminate IUU catch from its supply chains widely available on the Global Record, APEC Economies can accelerate the implementation of the APEC Roadmap on Combating IUU Fishing, while also improving broader vessel-level transparency globally.

2. **Streamline data-sharing:** Streamlining data-sharing efforts is an opportunity for both industry and APEC Economies to address their capacity needs. Capacity and resource availability is crucial for APEC Economies to effectively collect, share, and submit data to the FAO platforms. This maintenance is important to keep the Global Record up to date and useful for industry. As regulations are developed and implemented, APEC Economies should consider the increased capacity needed by industry to comply. Harmonizing requests and standardizing data requirements can ease capacity needs from an industry perspective. APEC Economies can leverage industry standards, such as those detailed by GDST, to inform data formats used in the Global Record and encourage interoperability. Additionally, developing the Global Record with interoperability in mind will allow traceability providers, platforms, and initiatives such as the SCRP, to support broader verification efforts to improve risk identification *and* mitigation.

3. **Engage with FAO:** Both APEC Economies and the Metacoalition currently have challenges interacting with the FAO Global Record, which is hindering its full potential. APEC Economies and the Metacoalition should communicate these challenges to FAO to foster integration of the Global Record into data workflows and support operationalization of GIES. Suggested improvements to the Global Record include:

   • **Versatile Export Options:** Enhance accessibility and utility for different users by ensuring both GUI (graphical user interface) and API (application programming interface) users can export full and filtered vessel lists.

   • **Industry Alignment:** Validate that key data elements, formats, and nomenclature are in sync with industry requirements and recognized best practices, such as the GDST standards.

   • **Comprehensive API Documentation:** Offer both data providers and data users in-depth and user-friendly documentation and instructions on how to seamlessly integrate the online database into existing data systems.

   • **Open-Source Schema:** Provide an open-source data schema template that outlines the file format and structure, paving the way for standardized data integration, interoperability, and reproducibility.

   • **Structured Metadata:** Deliver metadata that clearly defines all data and formats, to enhance the data's usability and assist decision-making processes.

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[9] There is currently no data entry that allows for call sign to be reported in the Global Record (Table 2). However, given the importance of call signs for verification, this is a valuable vessel identifier that should be included in future Global Record versions.

Conclusion

Vessel data transparency will benefit APEC Economies and the seafood industry alike. In this Review, the SCRP highlights opportunities for coordinated efforts between these two groups to encourage vessel transparency and combat IUU fishing. The FAO Global Record, PSMA Applications for Designated Ports and Contact Points, and FAO GIES platforms all hold great potential for improving vessel transparency, but this potential will remain untapped without user-friendly improvements, clear expectations, and data standardization. APEC Economies and the Metacoalition have an opportunity to jointly communicate these much-needed improvements to FAO to improve the usability of these platforms and to support full operationalization of the GIES. In a global market with increasing public and private sector aspirations to elimate IUU fishing from supply chains, the lack of standardization and coordination can hinder progress. By prioritizing transparency of vessel information and activities in these FAO platforms, stakeholders can continue to make progress in verifying data and verifying data to support actions to reduce IUU fishing.

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