



**COMMISSION
SIXTEENTH REGULAR SESSION**
Port Moresby, Papua New Guinea
5 – 11 December 2019

**A REVIEW OF TRANSSHIPMENT TRENDS IN THE WESTERN AND CENTRAL PACIFIC
FISHERIES CONVENTION AREA AND RECOMMENDATIONS FOR MANAGEMENT**

**WCPFC16-2019-OP03
12 November 2019**

Submitted by The Pew Charitable Trusts

A Review of Transshipment Trends in the Western and Central Pacific Fisheries Convention Area and Recommendations for Management

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At-sea transshipment is a key component of many commercial fisheries operations globally; however, when insufficiently regulated and reported, it can contribute to inaccurate catch records, laundering of catch sourced from illegal, unreported, and unregulated (IUU) fishing, and other illicit activities such as trafficking of humans, weapons, and drugs.

While the WCPFC Convention [text](#), and the Conservation and Management Measure on transshipment, ([CMM](#)) 2009-06, states that to the extent practicable, transshipment must be conducted in ports, the latest [WCPFC Secretariat Annual Report on Transshipment](#) indicates that the number of reported high seas transshipment events has increased by **155 percent** between 2014 (552 events) and 2018 (1,409 events).¹ The continuous increase in high seas transshipments and the high number of vessels authorized to transship at sea shows that this practice is now the norm, rather than the exception.

In 2018, WCPFC15 recognized the need to review how transshipment is managed and monitored by forming an intersessional working group (IWG) to study the effectiveness of [CMM 2009-06](#). To help inform the work of the IWG, this paper expands on Pew's analysis of the publicly available information on transshipment operations (TCC14-2018-OP03) within the Convention Area and provides Pew's key findings and recommendations for consideration by both WCPFC16 and the IWG.

Summary of Pew's Key Findings and Recommendations

Key Findings to be considered at WCPFC16	Recommendations
1. Observer reporting forms and submission requirements need to be improved	WCPFC should modify the Regional Observer Program (ROP) Standards and Guidelines document to require observers to submit all transshipment observer reports directly to the Secretariat and develop standardized carrier observer data collection protocols, forms, procedures, and training.
2. There is insufficient sharing of data on transshipment operations between WCPFC, IATTC, and NPFC	WCPFC should strengthen information-sharing agreements with NPFC and IATTC to require the sharing of all transshipment-related information, including declarations and observer reports, especially when carrier vessels on a single voyage transship species managed by both organizations.
Key Findings to be considered by the IWG	Recommendations
3. Discrepancies exist in transshipment reporting within WCPFC	In order to provide a full accounting of all the activities of carriers that operate in the Convention Area, the IWG should recommend flag States provide all transshipment reports and declarations from carriers to the Secretariat in a standardized format, regardless of where the transshipping event occurs (high seas, EEZ, or in port).
4. Additional sources of information are needed to effectively verify reported transshipment operations	The IWG should consider the usefulness of automatic identification systems (AIS) as a supplement to vessel monitoring systems (VMS) and other reporting data, especially as it relates to transshipment and any needed modifications to the Transshipment Analysis Tool (TAT) detection criteria.
5. A review of the WCPFC CMM 2009-06 found key areas that need improvement	The IWG should consider recommending near real time reporting of declarations and reports to the Secretariat and the development of a standard transshipment declaration form, along with other recommendations included at the end of this brief.

1. Observer reporting forms and submission requirements need to be improved

a. Observer reports are not submitted to the Secretariat

The 2019 WCPFC Annual Transshipment Report notes that *“the majority of CCMs who were involved in high seas transshipment in 2018 seemed to affirm that all high seas transshipments conducted in 2018 were 100% covered by observers.”* Yet, the report does not include any information about reports received by the Secretariat from observers.¹ In 2017, the Secretariat reported at the 13th Technical Compliance Committee (TCC13) meeting that they had received only one observer report for the 958 high seas transshipping events that were reported to have occurred in the Convention Area in 2016.² Since there has not been any other apparent observer report submissions to the Secretariat, it appears that the Secretariat has received only one observer report for the 3,459 transshipment events that occurred between 2016 and 2018.¹ While most other tuna RFMO Secretariats have access to transshipment observer reports, the lack of access for the WCPFC Secretariat undermines its ability to independently verify and cross-check the information reported by transshipping vessels.

b. There are insufficient observer reporting standards

The WCPFC ROP comprises national, regional and sub-regional observer programs. These observers are required to collect scientific data and information on compliance with WCPFC regulations. However, transshipment observers on carrier vessels are not provided with any specific training or protocols to ensure consistent data collection. Other tuna RFMOs, such as ICCAT and IATTC, have ROPs that have specialized training for observers onboard carrier vessels. In these RFMOs, observer reports include extensive detail on each transshipment event and are submitted to the relevant RFMO. However, in WCPFC, protocols, submission processes, data collection procedures, and forms guiding carrier observer duties have yet to be developed and agreed by the Commission.

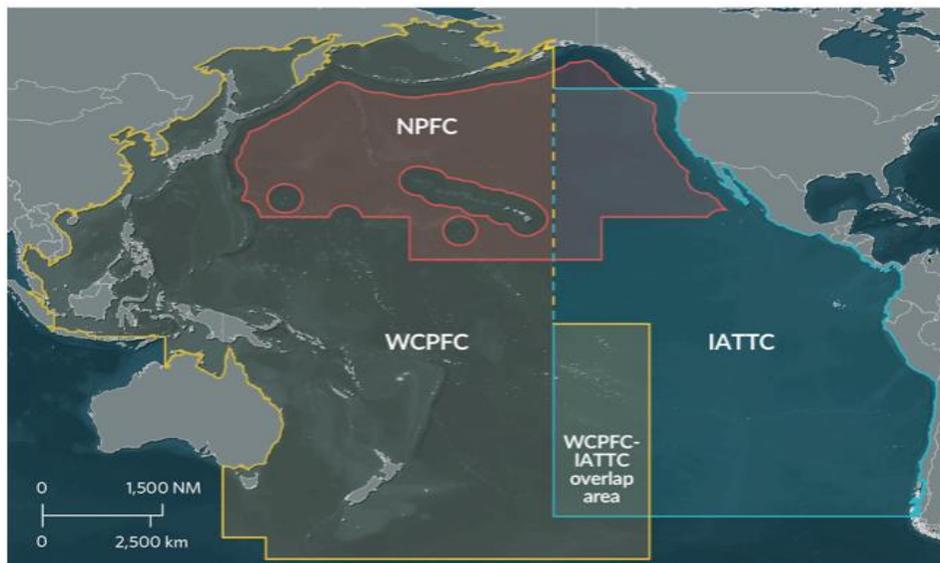
Recommendation: WCPFC should modify the Regional Observer Program (ROP) Standards and Guidelines document to require observers to submit all transshipment observer reports directly to the Secretariat. This will allow for independent verification of transshipment related data received from carrier vessel transshipment declarations. In addition, the Secretariat should work with members to develop standardized carrier observer data collection protocols, forms, procedures, and training.

2. There is insufficient sharing of data on transshipment operations between WCPFC, IATTC, and NPFC

a. Potential unreported transshipments occur in WCPFC overlap areas.

A recent geospatial [report](#) published by The Pew Charitable Trusts (Pew) cross-referenced satellite AIS data track histories of carrier vessels and movement patterns consistent with transshipment behavior against publicly available information on carrier vessels and transshipments reported by the WCPFC Secretariat and Commission members. The report found that in 2016 there were high concentrations of carrier vessel activity and potential unreported transshipments in two WCPFC overlap areas —the IATTC/ WCPFC overlap area and where the NPFC Convention Area spans part of the WCPFC high seas area off Japan.³ These three RFMOs all have different reporting and observer carriage requirements, making it difficult to determine which RFMO rules and procedures a carrier vessel is, or should be, operating under in dually managed waters at any given time. As a result, the amount and type of species transhipped by a carrier vessel in such waters may go unreported to the appropriate RFMO authorities.

Figure 1 – WCPFC, IATTC and NPFC overlap areas (The Pew Charitable Trusts 2019)



Sources: WCPFC and IATTC, via United Nations Food and Agriculture Organization (FAO), <http://www.fao.org/geonetwork/srv/en/main.home>; NPFC https://www.npfc.int/about_npfc/convention_and_npfc_area_of_application/npfc-shape-file; and Land and Bathymetry from Natural Earth

b. There is high carrier vessel activity in the NPFC and WCPFC overlap area

Pew's geospatial report also found that over 1,500 potential transshipment events may have occurred on the high seas in WCPFC waters, far more than the 956 such events reported by carrier vessels to WCPFC in 2016. At least 26 WCPFC-authorized carriers, primarily flagged to Panama and Chinese Taipei, operated on the high seas in the northwest quadrant of the WCPFC Convention Area that overlaps with the NPFC Convention Area -

including the high seas off Japan.³ However, WCPFC Secretariat Annual Reports on Transshipping over the last five years have indicated that no high seas transshipping events were reported to have occurred in this part of the WCPFC Convention Area. While it is possible these carriers exclusively transshipped NPFC-managed fish, it is also possible that WCPFC-managed fish were also transshipped (such as longline caught North Pacific albacore, yellowfin, bigeye tuna and swordfish). The insufficient transshipment reporting and observer protocols within NPFC, coupled with lack of formal data-sharing agreement between the WCPFC and NPFC Secretariats, limits the ability for both organizations to clearly understand the activities of carrier vessels operating in this part of the WCPFC Convention Area, and to what extent these vessels might be transshipping mixed quantities of WCPFC and NPFC managed species.

c. [Transshipments went unobserved due to captain's discretion](#)

The 2019 WCPFC Annual Report on Transshipment notes that “[r]eported high seas transshipment events were reported to have occurred more often in the tropical eastern Pacific, particularly within and around the overlap area with IATTC.”¹ In August 2018, MRAG Americas, the IATTC carrier observer service provider, reported that: “MRAG does not currently have an agreement with the WCPFC to collect data on transshipments in the Western Pacific...If the carrier vessel takes transshipments west of 150W, these will be designated WCPFC transshipments. The observer is to [observe] these transshipments at carrier vessel captain's discretion...” Due to the lack of an agreement on transshipment observation between the WCPFC and MRAG, 42 transshipments that were reported to have occurred in the WCPFC Convention Area were not observed in 2018, despite the presence of an IATTC observer onboard. This is solely because a vessel captain has discretion whether a transshipment event is observed or not. These unobserved events, with an average transfer weight of 56 metric tons, potentially represents over 2,354 metric tons of WCPFC product that went unreported by weight and species in 2018.⁴

d. [It is unclear if information on WCPFC transshipments observed by IATTC observers are included in Commission reports](#)

It appears there is no specific mention of the 486 WCPFC transshipment events that were observed in 2018 by IATTC observers in the 2019 WCPFC Annual Report on Transshipment.^{4.1} This is a reoccurring theme in previous WCPFC annual transshipment reports and it is unknown if the WCPFC Secretariat received information from IATTC on these events and whether this information was included in the Annual Reports.

Recommendation: WCPFC should strengthen information-sharing agreements with NPFC and IATTC to require the sharing of all transshipment-related information, including declarations and observer reports, especially when carrier vessels on a single voyage transship species managed by both organizations. These agreements should include a mandate for carrier vessels to notify the Secretariat of their intent to transship WCPFC-managed species when the carrier vessel enter WCPFC waters. The current data-sharing agreement

between WCPFC and IATTC should also be extended to cover MRAG Americas - the IATTC carrier observer service provider - to ensure that all transshipping events occurring in the WCPFC Convention Area be observed, documented, and reported directly to the WCPFC Secretariat. The Secretariat should then provide a clear accounting of the number and flags of offloading and receiving vessels involved in transshipping in the WCPFC Convention Area that are documented in IATTC transshipment reports.

3. Discrepancies exist in transshipment reporting within WCPFC

a. There is non-compliance with notification and declaration requirements

CMM 2009-06 requires that offloading and receiving vessels provide advanced notifications and post-transfer declarations for each transshipment. The 2019 WCPFC Annual Report on Transshipment reveals discrepancies in notifications and declarations received from offloading and receiving vessels. For instance, Panama reportedly received 520 transshipments yet provided only 478 notifications and 493 declarations for the 2018 reporting period. Other members and cooperating nonmembers have similar inconsistencies, with none meeting the notification and reporting requirements for all transshipments. In total, 55 notifications and 43 declarations were not submitted by CCM carrier vessels, and 51 advanced notifications and 59 declarations were not submitted by CCM fishing vessels that transshipped in 2018.¹

Table 2: 2018 high-seas transshipment events reported to the Secretariat by flag vessels

CCM	Count of Vessels in Reports Received		Count of Reported Transshipment Events				Notifications and Declarations not received	
	As Receiving Vessels	As Offloading Vessels	Receiving Vessel	Offloading Vessel	Advance Notifications received	Declarations received	Advanced notifications <u>not</u> received	Declarations <u>not</u> received
China	3		93		93	93	0	0
		109		349	342	341	7	8
Japan							NA	NA
		21		38	29	28	9	10
Republic of Korea	6		215		208	206	7	9
		76		109	107	107	2	2
Liberia	4		145		143	143	2	2
							NA	NA
Panama	10		520		478	493	42	27
							NA	NA
Chinese Taipei	4		349		347	346	2	3
		228		780	772	765	8	15
Vanuatu	2		87		86	85	1	2
		52		133	108	109	25	24
Receiving Vessels	29		1409		1354	1366	55	43
Offloading Vessels		514		1409	1358	1350	51	59

b. There are discrepancies between member and cooperating non-member reports and information from the WCPFC annual transshipment report

There were noted discrepancies in the information provided within the 2018 Annual Transshipment Report Table 2 and the summary of the CCM reports in table 7A, which are detailed in Table 3 below.

- No transshipment locations or Annual Report Part 1 data was provided by Panama; it is unclear if these were even submitted.
- Chinese Taipei, China, and Korea all submitted different total number of transshipments within their annual CCM reports than those numbers provided by their flagged carrier vessels outlined in the WCPFC annual report.
- Liberia was the only CCM to provide consistent information on the number of carrier vessels involved in transshipments in both its Annual Report Part I submission and the Secretariat’s Annual report; however, they list 243 transshipments within the WCPFC annual report (all within the WCPFC high seas) which is much higher than the 145 of transshipments reported by those carrier vessels.
- In the summary of CCM reporting of 2018 transshipments, no location details (high seas, EEZ or in port) were provided for China’s 344 longline vessels and 90 carrier vessels. Similarly, Chinese Taipei did not provide the transshipment location (high seas, EEZ, in port) for the 1,491 transshipments reported to have been conducted by its longline vessels.¹

Table 3: Transshipments reported by carrier vessels for calendar year 2018

Country	Annual Report on WCPFC Transshipment Reporting – By Secretariat ¹			CCM Annual Report part 1 ⁵
	CCM reporting (pg. 5)	Summary of CCM reporting (pg. 16)	Number of transshipments locations provided (pg.16)	
Panama	520	Not submitted	Not submitted	Not submitted
China	93	90	Not specified	Not specified
Korea	215	352	352	352
Chinese Taipei	349	508	508	504
Vanuatu*	87	Not specified	Not specified	94
Liberia	145	145	243	145

*Vanuatu’s annual report part 1 data showed discrepancies for the total number and locations of transshipments.

The CCM longline vessel reporting also indicates a few inconsistencies with the WCPFC transshipment Annual report.

- Neither China nor Vanuatu submitted transshipment locations
- Chinese Taipei reported 780 transshipments, whereas the annual report cites 1491 transshipments, and only provides locations for 331.¹

Table 4: Transshipments reported by longline vessels for calendar year 2018

Country	Annual Report on WCPFC Transshipment Reporting – By Secretariat ¹			CCM Annual Report part 1 ⁵
	CCM reporting (pg. 5)	Summary of CCM reporting (pg. 16)	Number of transshipments locations provided (pg.16)	
China	349	344	Not specified	344
Japan	38	28	28	28
Korea	109	116	116	232
Chinese Taipei	780	1,491	331	986
Vanuatu	133	Not specified	Not specified	96

The mandated use of a standardized reporting format, which was endorsed by TCC in 2018, would increase the consistency of reports, reduce instances of mis-reported or unreported data, and simplify the determination of compliance with reporting requirements.

c. [There are gaps in transshipment data reporting by several CCMs](#)

The 2019 WCPFC Annual Report on Transshipment indicates that transshipments by Panama’s carrier vessels increased by 87 percent just between 2017 (278) and 2018 (520) – accounting for 37 percent of all transshipments that occurred within the WCPFC Convention Area in 2018. However, Panama did not submit an Annual Report Part 1 as required. Therefore, there is no way to cross-verify the details of these reported transshipment events. Furthermore, the WCPFC annual transshipment report does not provide any details on locations of transshipments, species or quantities transhipped for Panama, as it does for all other countries that reported to transship in 2018.

Recommendation: In order to provide a full accounting of all the activities of carriers that operate in the Convention Area, carrier vessels should be required to provide all transshipment reports and declarations to the Secretariat in a standardized format, regardless of where the transshipping event occurs (high seas, EEZ, or in port).

4. [Additional sources of information are needed to effectively verify reported transshipment operations](#)

a. [Discrepancies exist in the number of authorized, active, and reported carriers](#)

Table 5 below summarizes the number of carrier vessels reported by each CCM to have “Fished” in the Convention Area in 2018 and the number of carriers that reported high seas transshipping events as per the 2019 WCPFC Annual Report on Transshipment. There was a large discrepancy between the number of

carriers reported to have “Fished” in the Convention Area in 2018 (102 carriers) and the number of carriers that reported high seas transshipping events (29). There does not appear to be any reporting on the activity of the remaining 73 carriers, which represent over 70 percent of the carrier fleet.

Table 5: Vessels reported as “Fished” and vessels reporting high seas transshipping events in 2017

Flag State	Carriers authorized on RFV in 2018 (as of 10/9/2019) ⁶	Carriers that were reported to have “Fished” in the WCPFC Convention Area in 2018 ⁶	Carriers that reported high-seas transshipment events in 2018 ¹
Korea	33	8	6
Liberia	27	4	4
Panama	127	83	10
Chinese Taipei	17	4	4
Vanuatu	4	2	2
China	12	1	3
Total	219	102	29

b. Alternative tools for detecting transshipments should be considered

According to the 2019 WCPFC Annual Report on Transshipment, the Secretariat undertook an analysis of VMS data to attempt to detect potential transshipment events. The Secretariat specified that an incident would be counted as an event when “...the reported WCPFC VMS positions related to two fishing vessels, are estimated to be within a distance of 250 metres, over a time period of at least 4 hours.” The WCPFC VMS system documented 17 instances in which a purse seine vessel was within 250 meters of a fish carrier for four hours between 2017 and 2019. Considering that purse seine vessels are only allowed to transship at sea under special exemptions, these instances warrant further investigation.

Overall, the VMS system only detected 23 percent of the over 3,200 transshipment events that were reported to the Secretariat during the time period of interest.¹ In order to improve the accuracy of the tool, the IWG should consider whether the Secretariat should change its detection criteria, based on data from the ICCAT and IOTC carrier observer programs that indicates the vast majority of transshipment events at sea in those regions are completed in less than three hours.

Automatic Identification System (AIS) data, and its analysis, is another useful tool for increasing the transparency of transshipment activity. Given that the VMS polling rate for longliners is once every four hours, supplemental use of AIS data could be used to gain a better understanding of the length of time a transshipment at sea takes place within the WCPFC Convention Area- as evidenced in the following paragraph.

c. AIS analysis indicates potential unreported transshipments in 2017

A Global Fishing Watch/Pew AIS analysis ([link](#)) of carrier vessels activity in the Convention Area found that the trends highlighted in the 2016 Pew Geospatial report (detailed in section 2a of this report) continued into 2017. The report found that while only 27 distinct carrier vessels reported high seas transshipments in 2017, AIS analysis indicated that 233 WCPFC-authorized carrier vessels were present within the WCPFC Convention Area during that time. The lack of publicly available information on the reported activity of these carrier vessels makes verification and validation of their activities unfeasible.

While discrepancies exist in reported transshipment information by CCMs and the Secretariat, it is clear from this analysis that observed vessel activity also differs from that which gets reported by both authorities - ultimately raising the possibility that at-sea transfers involving WCPFC managed species in 2017 went unreported. This may be a result of ineffective reporting protocols and processes, as well as reliance on self-reporting by CCMs, without access to proper tools or independent means of verification and/or validation of the transshipped quantities. Improving WCPFC's ability to cross-verify and validate reported information on transshipments, regardless of the source, will increase opportunities to detect anomalous behavior and for relevant authorities to respond to and investigate potential instances of unreported or unauthorized activity.

Recommendation: The IWG should consider recommending that the Secretariat modify its VMS transshipment detection criteria to implement a shorter period and investigate the use of AIS as a supplement to VMS and other reporting data, especially as it relates to transshipment reporting

5. A review of CMM-2009-06 found key areas that need improvement

- WCPFC is one of the only RFMOs that allows at sea transshipment exemptions for small scale purse seine vessels, purse seine vessels operating exclusively in-zone, for troll, longline, pole and line vessels, etc. These exemptions and ambiguity make implementation inconsistent and allow for even more transshipments to occur than initially envisioned when Article 29 of the Convention was drafted.⁷ The WCPFC transshipment resolution also differs from those in many other RFMOs in that it does not apply to the whole Convention Area. EEZs are subject to national laws, which could allow transshipments to occur within areas/countries with less stringent regulation. These EEZs may also have limited oversight and enforcement resources, therefore allowing transshipments to occur undetected.

Recommendation: The IWG should consider recommending that transshipment notifications and reporting be submitted on standardized forms and that uniform transshipment regulations be extended to the entire Convention Area to provide greater transparency and contribute to more effective management. At a minimum, the Commission should require that all transshipment reports, including declarations, be sent directly to the Secretariat, regardless of the location of the transfer.

- Paragraph 37 of CMM 2009-06 provides two basic metrics to determine impracticability of in port transshipment: (1) that the vessel would have significant economic hardship and/or (2) that the vessel would need to make significant and substantial changes to its operation. However, “significant economic” and “significant and substantial changes” are not defined. Additionally, there are no definite guidelines that can be used to determine if it is impractical for vessels to transship in-port. A CCM simply notifies the Commission that it is impractical for the operation of their vessel to transship in-port, without any supporting documentation or thorough evaluation.

Recommendation: The IWG should propose that the WCPFC adopt strict guidelines to limit the number of vessels that can transship under the “impracticable” exemption.

- Paragraph 36 states that “TCC, shall review the application of the exemptions by relevant CCMs after a period of 3 years and every 2 years thereafter to establish whether monitoring and verification has been effective. After review, the Commission may prohibit transshipment on the high seas by any vessel or vessels in relation to which monitoring and verification of transshipment on the high seas is proven to have been ineffective or establish or vary any conditions for transshipping on the high seas.” However, it appears that such a review has not been completed in the decade that the measure has been in place.

Recommendation: The IWG should conduct a review of the current CCM exemptions for high seas transshipments. This will ensure that no vessels are taking advantage of the exemption to conduct at sea transshipment with minimal oversight.

- Paragraph 10 of the CMM requires both the offloading and receiving vessels to submit transshipment declarations, yet, WCPFC is one of the only tRFMOs that does not provide a transshipment declaration form. Instead, the CMM provides a list of information to be provided by CCMs. Transshipment declaration forms are an essential piece of a properly regulated transshipment operation; ensuring consistent data reporting for all transshipments. Implementing comprehensive transshipment declaration forms will enable WCPFC reporting standards to be compatible with neighboring RFMOs.

Recommendation: The IWG should consider recommending that a standardized transshipment declaration form be developed and adopted.

- Paragraph 35 of CMM 2009-06 allows vessels to delay transmission of transshipment declarations to the executive director by up to 15 days. Considering that the transshipment declaration form only requires basic information observed during the transshipment event, it is unclear why there is an extended period for submission.

Recommendation: The IWG should consider recommending that declarations be transmitted to all relevant authorities, including the Secretariat, within 24 hours of completing the transshipment. This will limit any opportunity to alter recorded information and allow for prompt verification of data.

- There are no minimum in-port transshipment standards developed by WCPFC, instead all in-port transshipments are subject to port states domestic standards. CMM 2009-06 also does not include any requirement for observers to record transshipments occurring in port and does not require that the Secretariat receive in-port transshipment notifications or reports, making in-port transshipment regulation and reporting inconsistent throughout the Convention Area.

Recommendation: Considering the importance of maintaining the scope and integrity of transshipment control measures, and reinforcing traceability of the catches, the IWG should consider recommending that stringent reporting requirements for in-port transshipments should be developed and adopted; such as notifications and reports sent directly to the Secretariat, in-port observer reporting when present, and the requirements that CCMs provide 'nil' reports if no transshipment took place in port during the reporting period. In addition, in-port annual transshipment reports should include the same level of detail required for at-sea transshipment annual reports.

- The current WCPFC transshipment reporting procedures do not require the documenting of International Maritime Organization (IMO) numbers, which is inconsistent with international standards and could hamper cross-referencing between the record of fishing vessels and the authorized list of carrier vessels.

Recommendation: To meet international standards and improve reporting consistency, the IWG should consider recommending that IMO numbers be included in all transshipment reporting from receiving and offloading vessels.

References

¹ Western and Central Pacific Fisheries Commission, "Annual Report on WCPFC transshipment reporting, with an emphasis on high seas activities. WCPFC-TCC11-2015-RP03," Technical and Compliance Committee (2015), <https://www.wcpfc.int/node/26763>.

² Western and Central Pacific Fisheries Commission, "Summary Report of the Thirteenth Regular Session of the Technical and Compliance Committee WCPFC14-2017-TCC13," Technical and Compliance Committee (2017), https://www.wcpfc.int/system/files/TCC13%20Summary%20Report%20final_issued%2014%20Nov%202017.pdf.

³ The Pew Charitable Trusts, "Transshipment in the Western and Central Pacific," (2019), https://www.pewtrusts.org/-/media/assets/2019/09/international_fisheries_transshipment_report.pdf.

⁴ MRAG Americas Inc., “Review of the IATTC Regional Observer Programme. Covering the period January 1, 2018 to February 26, 2019,” Inter-American Tropical Tuna Commission (2019), https://www.iattc.org/Meetings/Meetings2019/IATTC-94/Docs/English/CAF-07-03_ADDENDUM%201%20MRAG%20Americas%20Program%20to%20monitor%20transshipments%20at%20sea.pdf.

⁵ Western and Central Pacific Fisheries Commission, “Annual Report to the Commission Part 1: Information on Fisheries, Research, and Statistics,” Scientific Committee (2019), <https://www.wcpfc.int/meetings/sc15>.

⁶ Western and Central Pacific Fisheries Commission, “WCPFC Record of Fishing Vessels,” Accessed on 7 October 2019 and 11 October 2019, <https://www.wcpfc.int/record-fishing-vessel-database>

⁷ Western and Central Pacific Fisheries Commission, “Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean,” Accessed on 7 October 2019, <https://www.wcpfc.int/doc/convention-conservation-and-management-highly-migratory-fish-stocks-western-and-central-pacific>.