

TRANSSHIPMENT: Strengthening Tuna RFMO Transshipment Regulations



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Abstract

Transshipment, particularly at-sea transshipment, continues to be closely scrutinised and is high on the agenda of Regional Fisheries Management Organizations (RFMOs) and stakeholders alike. At-sea transshipment allows vessels to remain at-sea for long periods of time, and, consequently, there is a real, or perceived, risk that transshipment 1. allows illegal, unreported and unregulated fisheries product entry into the supply chain, 2. contributes to overfishing by allowing greater fishing effort, and 3. is associated with other illegal activities, for example the recent evidence of slavery, labour abuses and human trafficking. Owing to these risks, there are calls for a complete prohibition on at-sea transshipment. It may also be possible to consider other options for strengthening the transshipment regulations such that there is the necessary transparency and confidence to the supply chain to demonstrate that transshipment is not contributing to illegal fishing activities.

To that end, this report reviews the transshipment measures of the five tuna RFMOs plus SEAFO and CCAMLR. SEAFO has implemented a complete prohibition on at-sea transshipment. CCAMLR allows transshipment in specific areas and species and requires prior-reporting of all transshipments. The regulations of each of tuna RFMOs are largely consistent, with a general prohibition on at-sea transshipment before outlining the regulations for those vessels that are authorised to transship at-sea. At-sea transshipment in tuna RFMOs, generally speaking, is only permissible by large-scale longline fishing vessels and requires 100% observer coverage on the carrier vessels.

The report finds that, on close examination of the measures and their relationship with other Monitoring, Control and Surveillance (MCS) measures, there are significant gaps and shortfalls. For example, there is complete Vessel Monitoring System (VMS) coverage on vessels permitted to conduct at-sea transshipment and there is inconsistency in the definition of 'large-scale longline vessel'. The report also finds that reliance solely on the reporting by flag State is unlikely to be providing sufficient transparency on the actions of fishing and carrier vessels. The report's recommendations expand on historical suggestions and highlight the need to clearly link broader MCS measures with actions to strengthen any regulation of transshipment.

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Executive Summary

This report provides guidance on strengthening transshipment regulations in tuna RFMOs by undertaking a critical review and comparative analysis of the five tuna RFMOs (CCSBT, IATTC, ICCAT, IOTC, WCPFC), and two non-tuna RFMOs — SEAFO and CCAMLR¹. This technical report builds on and expands ISSF's previous transshipment management analysis Technical Report 2014-04 'Transshipment in Tuna-RFMOs and Mechanisms to Support Best Practices in Tuna Fisheries'. The report also considers cross-cutting issues affecting the implementation of, and compliance with, the existing RFMO transshipment measures, with a view to identifying options to strengthen the management of transshipment and thereby addressing the deficiencies identified by various stakeholders.

Transshipment is widely used by the fishing industry to reduce operating costs and maximise fishing opportunities. However, the historical basis of the measures and recent analysis of AIS tracks, highlights that it remains an illegal, unreported, and unregulated (IUU) fishing risk. The risk of illegal transshipment is heightened in regions where fisheries governance, monitoring or management capacity is weaker — for example, in some areas of Africa and the high seas. IUU fishing contributes to overfishing and compromises the food security of already fragile local communities. In addition, transshipment has been linked to other criminal activities, including human trafficking and slavery, arms and drug trade. Strengthening transshipment regulations is fundamental to addressing these issues and to improving transparency of fishing operations while contributing to effective traceability of fisheries supply chains.

The current approach to transshipment ranges from SEAFO's prohibition on at-sea transshipment to CCAMLR's authorisation of at-sea transshipment in only specific areas. In between is the tuna RFMO approach, where there is a general prohibition of at-sea transshipment for certain gear types and mechanisms that permit at-sea transshipment by other specific gear types and categories of vessels, which is primarily limited to large-scale longliners. Amendments to the

current RFMO measures must address these critical gaps: (1) definitions for key terms such as 'large-scale longline vessel'; (2) clear links to complementary MCS tools, for example VMS coverage and increased observer coverage on longline vessels; and (3) publicly displaying the list of vessels (both fishing/harvesting and receiving) authorised for in-port/at-sea transshipment. In addition, there must be provisions for greater direct oversight of compliance by the Commission.

Amendments to existing transshipment measures — for example, removal of exemptions related to the size and/or type of vessel and application throughout the RFMO area of competence (and ideally globally) to provide a uniform platform for implementation for transshipment management — must be coupled with actions that strengthen the supporting MCS measures. For example, implementing criteria for flag States to use in authorising their flagged vessels that are based on the IUU fishing risk profile. There is also merit in considering implementation of a limit on the number of consecutive at-sea transshipments per vessel such that the vessel must return to

Key Findings:

- 1 Exemptions must be removed and the measures must be applied throughout the RFMO area of competence.**
- 2 Effective transshipment management relies on strong MCS measures.**
- 3 Limiting the number of consecutive transshipments is likely to improve transparency.**
- 4 A global approach to transshipment management is required to effectively curb the risk of IUU fishing.**

¹ Although it is not an RFMO, for the purposes of this analysis the term RFMO is being used generally rather than specifically and so, although not strictly accurate, CCAMLR is being included in the general term 'RFMO'.

port at some prescribed minimum timeframe, (e.g., the fishing vessel can only complete four at-sea transshipments; the fifth transshipment would be required to be undertaken in port).

Ideally, transshipment measures, or at least common standards for monitoring and verification, are adopted at a global level with operational information shared between RFMOs, and these measures are based on agreed IUU fishing risk profiles of the vessels. An IUU fishing risk profile would identify the relative risk of different fishing vessels and enable the implementation of commensurate MCS measures on those higher risk vessels. MCS measures could include, for example, greater VMS polling rates, observer coverage on both the fishing and receiving vessels and in-port monitoring. Agreeing on a risk profile would be best undertaken at a global level through, for example, the FAO Committee on Fisheries, the Kobe Process, or possibly by a panel of independent experts so that there is a global standard risk profile that all RFMOs and flag States could agree to.

Without an integrated approach to transshipment management, IUU fishing simply moves to a different location. Given that transshipment remains a cost-saving component of the fishing businesses, it is critical that all actors involved in, or with the ability to influence, its management consider their role and responsibility in developing and implementing rigorous measures to counter and eliminate IUU activities of less responsible operators. Cooperation between government and responsible fishing businesses is necessary to improve the transparency and traceability of transshipment activities to support legal fishers and the long-term sustainability of the tuna resources.

Research Questions

Transshipment forms an important component of fisheries operations, especially for large-scale tuna longlining. However, the increasing concern about the links between transshipment and illegal fishing and labour abuses highlights the fact that it is time to re-examine the management of transshipment activities, particularly transshipment at-sea. The questions posed below are provided to enable the readers to consider how the report's recommendations can help to improve their work and engagement. The questions are neither intended to be comprehensive nor represent every recommendation in the report, but they are intended to inspire thinking about the gaps or strengths of the current practices and where other stakeholders can enhance efforts for more robust at-sea practices.

- **How do transshipment regulations differ among the five tuna RFMOs** and how do they compare with two non-tuna RFMOs? Are the tuna RFMO transshipment measures outdated when considered in the global context?
- **How can transshipment regulations be improved?** Where are the opportunities for continual improvement for transshipment measures such that they continue to contribute to deterring IUU fishing operations and support other efforts to eliminate IUU fish from entering the supply chain?
- **What improvements and/or actions can I be asking for? How do they relate to my national government, regional bodies or my supply chain?** What unique opportunities do I have in my role to influence fishing operations, national government positions and the regulations adopted through RFMOs? How can the recommendations from this report can be integrated by stakeholders into advocacy opportunities and direct action?

Objective of this Report

The objective of this report is to provide guidance for the continual improvement and strengthening of transshipment regulations in tuna RFMOs. To achieve this objective, this technical report builds on and expands the previous analysis of transshipment management measures in the five tuna RFMOs (CCSBT, IATTC, ICCAT, IOTC and WCPFC) contained in ISSF's [Technical Report 2014-04](#) 'Transshipment in Tuna-RFMOs and Mechanisms to Support Best Practices in Tuna Fisheries'. It also reflects on the approach to transshipment regulations in two non-tuna RFMOs: SEAFO and CCAMLR. Furthermore, the report will consider cross-cutting issues affecting the implementation of, and compliance with, the existing RFMO transshipment measures, with a view to identifying options to strengthen the management of transshipment globally and thereby addressing the deficiencies identified by various stakeholders.

Following a brief introduction to transshipment, the report reviews each of the surveyed RFMO's and CCAMLR transshipment measures. Section two provides a direct comparison of these measures before critically reviewing the gaps, shortfalls and options for strengthening the existing measures (Section three). Finally, Section four provides Recommendations for strengthening the management of transshipment in the RFMOs.

Transshipment: An Overview

Transshipment is defined by the FAO as 'the act of transferring the catch from one fishing vessel to either another fishing vessel or to a vessel used solely for the carriage of cargo', commonly known as refrigerated cargo vessels or 'reefers' (FAO 1996). Transshipment can also involve the movement of personnel, equipment, and supplies (food, water, etc.) from a port to the fishing grounds. It differs from bunkering, which by definition provides refuelling services to vessels, but is not involved in the provision of any other goods or services.

Transshipment is widely used by the fishing industry, particularly by distant water and high seas fisheries, as a mechanism to reduce operating costs, specifically the costs associated with travelling between the port and the fishing grounds. This in turn allows fishing vessels to offload their catch and return to fishing immediately. This is consistent with the practice in the global tuna longline fisheries where the economics of the fishery, catching high value species in lower volumes, continues to be used to argue for regulated at-sea transshipment by large-scale longline vessels. In tuna fisheries, at-sea transshipment is primarily limited to large-scale longline vessels (WCPFC allows transshipment by other gear types) and as such, the top tuna transshipping nations, both within specific RFMOs and globally, are China, Kiribati², Korea, Japan, Panama, Taiwan, Vanuatu. The most significant numbers of transshipments are made by Chinese flagged longline vessels in IATTC, ICCAT and WCPFC, and Taiwan in the IOTC (refer to the transshipment reports of each of the RFMOs for the corresponding data).

The nature of at-sea transshipment, that is occurring between vessels far from regulators and compliance officials, creates an opaque operating environment. At-sea transshipment has been linked with illegal, unreported and unregulated (IUU) fishing and other illegal activities, leading to concerns about traceability and transparency of fishing activities. In relation to IUU fishing, at-sea transshipment, particularly on the high seas, enables unscrupulous operators to offload legal and illegally caught fish onto reefers who in turn assist in laundering the catches into legitimate supply chains. Not only is this practice illegal, it also contributes to overfishing of the resources (Telesetsky, 2014). A range of other non-fishing related crimes have also been linked to at-sea transshipment (UNODC 2011). Along with illegal fishing, including overfishing, Stop Illegal Fishing (2017) provides evidence linking transshipment with crimes such as arms smuggling and forged documents. Forged documents are used to falsify a vessel's identity, for example when using Flags of Convenience (FoCs), and enable multiple vessels to assume the same identity. In relation to labour abuses, a comprehensive review of labour conditions in the fishing industry was completed by the International Labour Organisation (ILO) (2013). This report highlights the risks associated with transshipment and human trafficking, labour abuses, slavery and forced labour and is further evidenced in other independent investigations (see for example, FishWise, 2014, Greenpeace, 2015 and Zimmerman et al, 2014).

Kroodsma et al (2017) undertook the first global analysis of AIS data to identify likely and potential transshipment events between 2012-2016. The report provides preliminary analysis about possible breaches of current at-sea transshipment

regulations and provides a platform for further investigation of combining fisheries data sources. By cross-referencing known transshipments with AIS data for reefers, they developed criteria that they used to indicate possible transshipments. They consider that when a reefer is traveling at less than two knots for an extended period of time that it is indicative of transshipment (a 'potential' event) and when this occurs with a fishing

Despite the current transshipment regulations, significant illegal transshipment is still occurring.

² The Author is aware that Kiribati has recently taken a decision not to authorise high seas transshipment, but this has not been corroborated by Kiribati authorities directly.

vessel that it is 'likely' that transshipment has occurred. In analysing AIS records between 2012-2016, they catalogued information on the key transshipping locations, flags of reefers, the flags of fishing vessels the reefers are likely to transship with, and the ports entered post-event. The report correlates the high transshipment events with regions with low regulatory frameworks and/or ability to effectively monitor their EEZs. The report finds that that up to 43% of all 'likely' and 'potential' transshipments³ occur on the high seas, with a significant proportion of these just outside the border with an EEZ. The report also finds that 44% of all potential transshipment were with reefers flying a FoC, that is, vessels that are registered in and flying the flag of a State or fishing entity that has no real link to the business or fishing operation. The top three reefer flags were Panama (20% of all reefers), Liberia (10%), the Bahamas (8%). They also show relationships between the reefers and specific flagged fishing vessels, including fishing vessels from China, Japan, the Republic of Korea, but this does not suggest that these flags or vessels are linked with illegal transshipment, fishing or other activity.

Although all tuna RFMOs have adopted and implemented transshipment regulations, the Kroodsmas et al (2017) report suggests that, despite the current transshipment regulations, there is likely significant illegal transshipment occurring. This points to: 1) possible inadequacies in the current arrangements for managing and regulating transshipment, and/or, 2) ineffective flag State control. To inform this discussion and enable consideration of amendments to the current measures, this report reviews the measures of the five tuna RFMOs, together with measures adopted by the South East Atlantic Fisheries Organisation (SEAFO) and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) (Table 1). This report seeks to highlight issues within the existing regulations so that these risks can be addressed and practical and implementable measures are adopted to strengthen the management of transshipment.

Table 1: Current transshipment measures adopted by, and binding on, members of each of the five tuna RFMOs.

RFMO	CMM Name and Number	Adopted	Entry into Force
CCSBT	Resolution on Establishing a Programme for Transshipment by Large-Scale Fishing Vessels	2017	2008 resolution entered into force on 1 April 2009, with the date being carried forward with subsequent revisions of the Resolution.
IATTC	Resolution C-12-07 Amendment to Resolution C-11-09 on Establishing a Program for Transshipment by Large-Scale Fishing Vessels	2012	Consistent with the treaty – 45 days after their notification
ICCAT	Recommendation 16-15 by ICCAT on Transshipment	2016	Consistent with the treaty – 6 months after the date of the notification from the Commission
IOTC	Resolution 17-06 On Establishing a Programme for Transshipment by Large-Scale Fishing Vessels	2017	Consistent with the treaty – 120 days from the date of the notification from the Secretariat
WCPFC	Conservation and Management Measure 09-06 On the Regulation of Transshipment	2009	No later than 1 July 2010
SEAFO	System of Observer, Inspection, Compliance and Enforcement 2015 Article 5 Prohibition of transshipment in the Convention Area	2017	5 December 2017
CCAMLR	Conservation Measure 10-09 Notification System for Transshipments within the Convention Area	2011	Consistent with the treaty – 180 days from the date of the notification from the Secretariat

³ Bunkering vessels were not removed from the 'transshipments', so the final figures may be lower than this number.

Analysis of Measures

This section reviews the current transshipment measures adopted by, and binding on, parties to the five tuna RFMOs, SEAFO and CCAMLR. Details of each of the components of the measure: the application of the measure, both the at-sea and in-port transshipment regulations, the reporting requirements, and the associated monitoring control and surveillance (MCS) measures, are considered in turn.

In general, the overarching approach to the regulation of lawful transshipment is relatively analogous among the tuna RFMOs but is quite different for SEAFO and CCAMLR. However, despite a relatively consistent approach, the specific details of the individual RFMO measures results in significant differences in the on-water regulation of transshipment at the RFMO level. For the tuna RFMOs, the transshipment management and monitoring relies on some formulation of:

- a general prohibition of transshipment at-sea, with exclusions to this general prohibition then specified,
- regulations for the management of in-port transshipment,
- an authorisation by the flag State to conduct at-sea transshipment and regulations governing at-sea transshipment,
- prior reporting by fishing and transshipment vessels of the intention to transship,
- reporting of the quantity transshipped to the flag State and Secretariat, and
- cross-referencing of reported catch and transshipment declarations, and verification using associated MCS tools (e.g. observer coverage), by the flag State and Secretariat to determine compliance with the measure.

For SEAFO all MCS measures are contained in a single document, the System of Observation, Inspection, Compliance and Enforcement and includes the regulations for transshipment and its associated monitoring regime. Article 5 provides the general prohibition of transshipment in the Convention Area⁴ and the requirements for lawful in-port transshipment and inspections are contained in Article 14 and Article 24 respectively. For CCAMLR, there is a single measure regulating transshipment inside the CCAMLR Convention Area (Conservation Measure 10-09). Unlike the tuna RFMOs and SEAFO, CCAMLR does not have a general prohibition on at-sea transshipment, rather at-sea transshipment is permissible for the fisheries specified provided they meet the prior reporting and monitoring guidelines.

It is crucial to recognise that that regulating transshipment relies on a range of other MCS measures, for example VMS/AIS, observer coverage, and statistical documentation schemes (or CDS). As such, the second critical component of this assessment of transshipment is consideration of these other support MCS measures. In addition, there is a need to combine data sources, for example satellite imagery with VMS and AIS data, to enable identification of unlicensed and/or unregistered fishing and carrier vessels who are conducting transshipment with other unlicensed/ unregistered vessels. Overall, both the measures plus the various data sources must be considered in concert with transshipment regulation as together they provide the rigorous platform for verifying and cross-referencing catch and effort records that in turn support transparency and management outcomes. This report does not purport to provide a comprehensive review of all MCS measures, but simply tries to look at the rules governing the key MCS tools and how they relate to the effective management of transshipment.

CCSBT

- The current transshipment measure was first adopted by the CCSBT Extended Commission in 2008 with the most recent revisions adopted in 2017. The measure applies to all southern bluefin tuna (SBT), defined as any

⁴ The SEAFO Convention Area is the **high seas only** of the south western Atlantic Ocean between approximately the equator and 50°S.

SBT or fish products originating from SBT, throughout its range and sets obligations for members for both in-port and at-sea transshipments, consistent with the Convention. CCSBT has adopted a measure that enabling regulated at-sea transshipment by large scale tuna longline vessels (LSTLV) (paragraph 2) by way of an authorisation from the flag State (paragraph 10) and imposing an unstated general prohibition on at-sea transshipment for all other vessels (paragraph 2) (for a full list of all the application and exemptions in the transshipment measure refer to Table 2).

The measure defines a LSTLV as a *'tuna longline vessel with freezing capacity'*, where *'freezing capacity'* is a freezer capable of storing more than 500 kilograms of SBT at or below -30°C (paragraph 1). All transshipments must be accompanied by a CCSBT transshipment declaration until the first point of sale (paragraph 32).

For **in-port transshipment**, the measure requires that all transshipments must take place in-port in accordance with the rules and procedures specified in Sections 2, 4, 5, and Annex I (paragraph 3). Details of the in-port transshipment requirements are outlined in paragraphs 21-29. In CCSBT, in-port transshipment can only be undertaken between an authorised CCSBT fishing vessel and an authorised CCSBT carrier vessel (as listed on the Record of Vessels Authorised to Receive Transshipments), and only in ports designated by the flag State for use by its flag vessels, including foreign ports⁵. Lawful in-port transshipment can only take place under the following procedures: 1) the captain of the LSTLV notifies the port State authorities 48 hours prior to, or in a timeframe specified by the member or cooperating non-member, of the intention to transship, or if the time to port is less than 48 hours, immediately following the completion of fishing operations and provides the required information. 2) at the time of the transshipment, the captain of the fishing vessel reports similar information to its flag State. In addition, the captain of the fishing vessel is to complete and transmit to the flag State / Fishing Entity the transshipment declaration as outlined in Annex I of the measure no later than 15 days after the transshipment. 3) The master of the carrier vessel must notify the port State authority not later than 24 hours prior to the transshipment the quantity of SBT to be transshipped and, within 24 hours following the transshipment, complete and transmit the CCSBT transshipment declaration form to the port State authorities, the flag State of the LSTLV and the CCSBT Secretariat. In addition, 48 hours before landing the transshipped SBT, the master of the carrier vessel must complete and transmit a copy of the CCSBT transshipment declaration to the competent authorities in the landing State (Table 8). The information requirements at each stage are summarised in Table 3.

At-sea transshipment must be undertaken in accordance with the procedures outlined in Section 2, 3, 5, and Annexes I and II (paragraph 2). The measure confirms that the flag State is responsible for ensuring the compliance of its flagged vessels with the requirements of the measure (paragraph 12) and that at-sea transshipment is not authorised unless prior authorisation has been obtained by the LSTLV from their flag State/ Fishing Entity (paragraph 13). Importantly, the authorisation to transship at-sea can be granted up until 24 hours prior to the transshipment: *"to receive the prior authorisation, the master and/or the owner of the LSTLV must notify [the following information (in Table 4)] to its flag State/ Fishing Entity authorities at least 24 hours in advance of an intended transshipment"* (paragraph 14). Paragraph 10 provides the ability of the flag State to determine if their LSTLV should be granted an at-sea transshipment authorisation and paragraph 11 requires that an original copy be retained onboard the vessel. It can be argued that, even with the determination by the flag State, the vessel is not applying for the authorisation, but rather it is simply notifying its flag State of its intended transshipment, particularly when considering the timeframes for issuing the authorisation and that the fishing has already taken place.

⁵ The requirement to designate foreign ports for entry by the flag vessels of the CCSBT members in the transshipment resolution overlaps with the Minimum Standards for Inspection in Port Resolution adopted by CCSBT and entered into force on 1 January 2017. Paragraph 9 of the inspection in port resolution requires that Port State members designate the ports that foreign vessels are permitted to enter/transship/offload SBT. Although untested, it is considered by the Secretariat that in the event that a LSTLV or carrier vessel is permitted to transship in a port not designated by a Port State member under the inspection in the port State resolution, that the vessel would likely be denied access to the port.

Immediately prior to the commencement of the transshipment, the carrier vessel is tasked with determining if the LSTLV is: 1) participating in the CCSBT at-sea transshipment monitoring program (transshipment observer program) including paying the required fees and that the vessel has obtained prior notification (authorisation is required to be held onboard the LSTLV for inspection). If compliant, the transshipment can take place and once completed, the master of the carrier vessel is required to transmit the completed transshipment declaration not later than 24 hours prior to the flag State and the Secretariat and within 48 hours of landing to the landing State authorities, similar to the requirements for in-port transshipment (Table 3). The only difference is for transshipment inside coastal State/ Fishing Entity waters. In this instance, at-sea transshipments in the waters under national jurisdiction of a member/ cooperating non-member are required to have been authorised prior to the transshipment by the coastal State member (paragraph 11). Critically, the measure does not define who should seek the prior authorisation, the flag State or LSTLV. As is the case for all RFMOs, the rules don't apply in the case of *force majeure* as long as the Secretariat is duly notified; there is no specification of what this notification needs to include (paragraph 20).

In relation to the **carrier vessels**, CCSBT requires that all carrier vessels be included on the Record of Vessels Authorised to Receive Transshipments involving SBT (Section 2) and if they are not included on the record they are deemed to be not authorised to receive SBT transshipments (paragraph 4). Of note is that members and cooperating non-members are not able to include a carrier vessel on the record if it is (i) not already included on another RFMO's list of authorised carrier vessels, or (ii) is IUU-listed by another RFMO. Flag State members and cooperating non-members are required to provide information about each carrier vessel (paragraph 5) and promptly inform the Executive Secretary of any modification to the original list or information contained on the list (Table 7).

To verify compliance with the rules of the measures, CCSBT requires adherence with a range of **MCS measures**, including **VMS**, **observer coverage** and the **CCSBT CDS**. All fishing vessels are required to implement a satellite-linked **VMS** system in accordance with paragraph 1 of CCSBTs 2017 *Resolution on the CCSBT Vessel Monitoring System*. This measure applies to all fishing vessels, including those involved in the catching, taking, or harvesting of fish, plus any vessel operating at sea in preparation for or in direct support of these activities (footnote 1). The application of the VMS element combines both a CCSBT requirement that must be read in concert with the requirements of other relevant RFMOs based on the location of the fishing operation. Paragraph four of the CCSBT Resolution requires that flag States manage and monitor their vessels automatic and continuous VMS transmissions, including the vessels identification, its geographical position, the time and date of transmission at least once every four hours (paragraph 4(b)(d)). The CCSBT VMS Resolution must be read in concert and requires adherence to the relevant RFMO's rules for vessels operating within that RFMO's area of competence, for example IOTC Resolution 15-03, WPCPC, CMM 2014-02, CCAMLR CM 20-04, ICCAT Recommendation 14-09. For other non-RFMO governed high seas areas, the default is the IOTC Resolution 15-03. Table 6 provides a summary of the VMS requirements against its application to vessels permitted to transship at-sea.

The CCSBT measure stipulates that all carrier vessels are required to have an observer from the **CCSBT Regional Observer Program** onboard during *each* transshipment operation at-sea. Observers are to be registered with the Secretariat which is responsible for the appointment and placement of observers on each of the carrier vessels on the CCSBT list and that intends to transship SBT. The key role of the observer is to monitor compliance with the transshipment Resolution and that the transshipped quantities of SBT are 'reasonably consistent' with the reported catches on the transshipment declaration and both the fishing logbook and the catch documentation scheme paperwork (paragraph 19). The measure also outlines a range of requirements in Annex II including *inter alia*:

- the role of the observer is to verify the compliance with this and other CCSBT measures
- to the extent possible, that the observer not be a national of the flag State/ Fishing Entity of the carrier vessel
- immediately report any identified violations by the LSTLV to the master of the carrier vessel

- issue a daily report of the carrier vessel's transshipment activities to the observer program coordinator (currently Observer Consortium), submit a summary report every five days, and submit a general report to the Secretariat within 20 days of the end of the observation period, being the total length of the trip.

Paragraph 37 of the measure also enables observers from ICCAT, IOTC and WCPFC to be deemed to be participating in the CCSBT program when onboard carrier vessels listed on the CCSBT list of authorised carrier vessels. MOUs between CCSBT and IOTC and ICCAT to monitor at-sea transshipment by LSTLVs have been in place and active for some time. These MOUs enable IOTC and ICCAT observers to also perform the functions and meet the requirements of the CCSBT program. In 2016 CCSBT and WCPFC agreed an MOU which is likely to be operational in the near future⁶. A comparative summary of key elements of the observer program is provided at Table 5.

A key pillar of the CCSBT compliance regime is the **CCSBT Catch Documentation Scheme (CDS)**. The measure requires that flag States and members ensure consistency between the CDS documents and the transshipment declarations, including relying on the Regional Observer Program for at-sea transshipments. The measure also outlines port State and landing State cooperation, namely that these States take appropriate measures to verify the accuracy of the information received and to cooperate with the flag State to the same end (paragraph 29), but also allows for port States to take measures consistent with the domestic laws and regulations (paragraph 34).

The CCSBT **transshipment declaration** forms a key component of the reporting against the requirements of the Resolution. As outlined above, the Resolution requires that a transshipment declaration be completed and transmitted by the fishing and carrier vessels to the LSTLV flag States and the coastal State where relevant, and is provided by the carrier vessels to the port and landing States and the Secretariat. The information included in the transshipment declaration is provided in Table 8.

Together with the required reporting of notifications as identified above, the measure also sets out the **reporting obligations** (paragraphs 31 and 33). CCSBT requires that Members and Cooperating non-Members submit an annual report four weeks prior to the annual session of the Extended Commission providing details of transshipments that occurred in the previous fishing season including the following information:

- a list of their flag LSTLVs registered on the CCSBT Authorised Vessel List that have transshipped during the previous fishing season
- the quantities and percentage of SBT transshipped in-port and at-sea in the previous fishing season, and
- a comprehensive report that assesses the content and conclusions of the observer reports assigned to carrier vessels during the previous fishing season.

In addition to the above reports, the Executive Secretary is also required to submit three reports. 1. All of the observer reports to both the Scientific and Compliance committees; 2. Subject to the confidentiality requirements, the raw data, summaries and reports to the relevant flag State for the carrier and LSTLVs; and 3. report on the implementation of the measure to the annual session of the Compliance Committee. The Compliance Committee is tasked to review the compliance with the measure. As is the case with all papers for CCSBT session, this report is not publicly available until after the Commission meeting and then only if the Extended Commission has not deemed the report to be confidential.

IATTC

- The current IATTC transshipment Resolution, C-12-07, was adopted by the IATTC Commission in 2012, amending the 2011 Resolution. The preambular language cites the need to address organised IUU fishing

⁶ The MOU was signed in 2017 by the Chairs of each Commission.

and laundering from longline vessels inside the Convention Area. To achieve this, the Resolution requires that all large-scale tuna fishing vessels (LSTFV) exclusively conduct in-port transshipment of tuna and tuna-like species and sharks (caught in association with these tuna fisheries) inside the Convention Area (paragraphs 1 and 2). Footnote 1 defines the LSTFV for the purposes of the specific measure as *'all vessels fishing beyond areas of national jurisdiction or beyond each CPC-controlled areas and targeting tuna and tuna-like species'*. The rules and procedures for in-port transshipments are provided for in Annex 1. The Resolution does not apply to troll vessels, pole and line vessels or vessels engaged in the transshipment of fresh fish (defined as tuna or tuna-like species that are alive, whole or dressed/gutted but without further processing nor are frozen (paragraph 3 and footnote 2)). It is understood from the measure that these vessels can lawfully transship at-sea without meeting the regulatory requirements outlined in the measure for at-sea transshipment. As such, it is only large-scale tuna longline vessels (LSTLFV) that are allowed to transship at-sea transshipment, i.e. these vessels are exempted from the general requirement to transship in-port, this despite the preambular language referencing the risk of IUU fishing and fish laundering from these vessels. The at-sea transshipment must meet the rules provided for in Sections 2, 3, 4, 5 and Annexes 2 and 3 (paragraphs 3 and 4) (for a full list of all the application and exemptions in the transshipment measure refer to Table 2).

As previously stated, the rules governing **in-port transshipment** only apply to large scale tuna fishing vessels (LSTFV) and are provided for in Annex 1 of the Resolution. In summary, lawful in-port transshipments require actions by both the fishing and carrier vessels to the port, flag and landing States. The in-port transshipment is initialised by the master of the fishing vessel who notifies the port State authorities 48 hours prior to the intended transshipment, to their flag State authority at the time of the transshipment information about the transshipment, and no later than 15 days after the transshipment transmits the completed transshipment declaration to its flag State (Annex 1, paragraph 2). The second requirement is that the carrier (receiving) vessel must transmit no later than 24 hours prior to the intended transshipment the quantity of catches expected to be transshipped from the fishing vessel to the port State authorities and transmit the completed transshipment declaration to the fishing vessels flag State authority at the completion of the transshipment. The third component of lawful in-port transshipment relates to the landing State. Here the master of the carrier vessel must provide a transshipment declaration to the landing State authorities within 48 hours of the intended landing. To support the objective of measure, Annex 2 requires that the port and landing States take action to verify the accuracy information they receive and to cross-reference the information with that of the LSTFV's flag State catches reports (Annex 1, paragraph 5). The information requirements at each stage are summarised in Table 3.

The Resolution makes clear that the procedures for **at-sea transshipment** are only applicable for large-scale tuna longline fishing vessels or LSTLFV (paragraph 4) and must be undertaken in accordance with Sections 3, 4, 5 and Annexes 2 and 3. CPCs, both Members and Cooperating non-Contracting Parties, alone authorise their LSTLFV to participate in at-sea transshipment and only those LSTLFV that have been granted prior authorisation from their flag CPC are permitted to conduct at-sea transshipment (paragraph 5 and 12). In accordance with paragraph 13, a LSTLFV can seek prior authorisation up to 24 hours prior to the intended transshipment, leaving questions about the ability of the flag State to provide sufficient oversight in granting an authorisation to transship at-sea. The notification obligations are not onerous placing obligations on both the fishing and carrier vessels (Table 4). Finally, consistent with international law, all at-sea transshipments by LSTLFV inside the exclusive economic zone (EEZ) of a coastal State must be first authorised by the coastal State concerned (paragraph 12⁷). As is the case for all RFMOs, the rules don't apply in the case of *force*

⁷ In the next amendment to the IATTC Transshipment measure, it would be advisable to create 11bis to separate the obligation related to coastal State waters as separate from the general at-sea transshipment obligations. As currently drafted, all of the at-sea transshipment requirements pertain to coastal State waters.

majeure as long as the Secretariat is duly notified; there is no specification of what this due notification needs to include (paragraph 17).

Section three of the Resolution outlines the requirements for **carrier vessels**, establishing the IATTC Record of Carrier Vessels. Like other RFMO requirements, IATTC CPCs are required to submit information (Table 7) on each of its flag carrier vessels to the IATTC Director including any updates to the original information. However, critically all carrier vessels authorised to receive at-sea transshipments in IATTC must be flagged to an IATTC CPC, this is unlike other RFMOs that as long as the vessel is authorised to receive at-sea transshipments, it can be flagged to a non-member. All carrier vessels are required to be included on the publicly available list of authorised carrier vessels and to operate a VMS in accordance with Resolution C-14-02 *On the establishment of a vessel monitoring system (VMS)*.

There are three key **MCS components** in the Resolution: **observer coverage** outlined in Annex 3, **VMS** and the **IATTC Statistical Documentation Scheme**. The Resolution requires that all carrier vessels are equipped with a **VMS** (paragraph 10) in accordance with the requirements of the general VMS Resolution (C-14-02), which also establishes the requirements for fishing vessels. The Resolution requires polling every four hours for longline vessels and every two hours for other vessels, which is assumed to apply to carrier vessels. It is important to highlight the inconsistency between the VMS requirements in the VMS and transshipment measures owing to the classification of fishing vessels. The VMS Resolution (C-14-02) requires that VMS be installed on all fishing vessels 24 metres LOA or greater, compared to the definition of a LSTFV being *'all vessels fishing beyond areas of national jurisdiction or beyond each CPC-controlled areas and targeting tuna and tuna-like species'*. There is no specification of size and consequently there is the potential for some vessels to be covered by the transshipment but excluded from the requirement for the installation and use a VMS, thus creating a loophole that may enable illegal at-sea transshipments. Table 6 provides a summary of the VMS requirements against its application to vessels permitted to transship at-sea.

The IATTC Resolution stipulates that all carrier vessels are required to have an observer from the **IATTC Regional Observer Program** onboard to observe each at-sea transshipment operation by LSTLFVs and that the observer is to be onboard prior to the commencement or continuation of any at-sea transshipment (paragraph 5, 16 and 17). A comparative summary of key elements of the observer program is provided at Table 5. But in summary, like the CCSBT requirements, the IATTC Director is responsible for the appointment and placement of the observer to each of the carrier vessels on the IATTC list. Annex three of the Resolution provides a suite of obligations including *inter alia*:

- the role of the observer is to verify the compliance with this and other IATTC measures, specifically verifying the logbook with the transshipment declaration and/or statistical documentation (where relevant)
- to the extent possible, that the observer not be a national of the flag State of the carrier vessel
- immediately report any violations identified to the master of the carrier vessel
- issue a daily report of the carrier vessel's transshipment activities and submit a general report to the Secretariat within 20 days of the end of the observation period

The third component of the IATTC MCS for transshipment is the **Statistical Documentation Scheme** (Resolution C-03-01). However, this is a very limited MCS measures as it is only applicable for bigeye tuna imported or re-exported into the territory of IATTC CPCs; it does not include bigeye tuna caught by purse seine and pole and line vessels, nor does it include any other IATTC species. The transshipment Resolution calls for the validation of statistical documents by the flag State of the LSTLFV for catches and for transshipments using the observer reports. In addition, all CPCs are required to have both a Statistical Document and a copy of the Transshipment Declaration when bigeye tuna is imported into their territory (paragraph 18).

In relation to the **IATTC transshipment declaration**, as outlined above, the Resolution requires that a transshipment declaration is completed and transmitted by the fishing vessel to its flag State. The carrier vessel is also required to

complete the declaration and transmit it to the flag State of the fishing vessel, the IATTC Director and to the landing State. The details of the information included in the transshipment declaration are provided in Table 8.

The **reporting obligations** in the Resolution include general requirements and those related to in-port transshipment. For in-port transshipments, the flag State of the LSTFV is required to report to IATTC details of the transshipments by its vessels (Annex 1, paragraph 6), but there is no information on what details are to be provided, the intent of the report, nor when the report is to be provided by or what action the Commission or its subsidiary bodies are to take. For example, is the report provided to enable a compliance assessment or for verification of the catch and effort records? The general reporting requirements (paragraphs 19 and 21) provide greater clarity and are of a general nature, but it is not clear if the obligations are at-sea transshipments only (or are applicable to all transshipments), as it is not included in Annex 1 nor cross referenced. Paragraphs 19 and 21 stipulates that CPCs are required to provide an annual report to the Director by 15 September containing the:

- quantities by species transshipped in the previous year;
- their list of flag vessels on the IATTC LSTLFV list that transshipped in the previous year, and
- a comprehensive report that assesses the content and conclusions of the observer reports assigned to carrier vessels during the previous year.

In addition to the above reports, the Director is also required to submit three reports. 1. all of the observer reports to both the Scientific and Compliance committees; 2. subject to the confidentiality requirements, the raw data, summaries and reports to the relevant flag State for the carrier and LSTLFV; and 3. report on the implementation of the Resolution to the annual session of the Commission which is tasked to review the report to assess CPC compliance with their obligations. This report is publicly available from the IATTC website.

ICCAT

- Adopted in 2016, ICCATs Recommendation on Transshipment, 16-15, highlights the link between transshipment and IUU fishing and laundering of illegally caught fish. Similar to CCSBT and IATTC, the ICCAT Recommendation prohibits at-sea transshipment before providing exemptions from this general prohibition (paragraph 1). Specifically, ICCAT requires that all transshipments of tuna, tuna-like fish and all species caught in association with these fisheries that are harvested inside the Convention Area must take place in-port in accordance with the rules in paragraph 2 and Appendix 3. Of note is that the ICCAT Recommendation also stipulates that all harvests of fisheries products from inside the ICCAT Convention Area, but transshipped outside of the area, must also take place in-port (paragraph 1(b)), except where there is comparable measure in place (paragraph 4). The recommendation also reiterates that this measure does not prejudice the transshipment requirements in other ICCAT measures (paragraph 5); one would hope that this measure provides the minimum standards with any other applicable measures placing greater restrictions than are required by this Recommendation. In terms of the exemptions from the general prohibition, the Recommendation does not apply to harpoon vessels that transship fresh swordfish at-sea (paragraph 3), where fresh refers to swordfish that are 'alive, whole or gutted / dressed, but not further processed or frozen' (footnote 1). Meaning that these vessels can continue to transship at-sea without meeting the rules outlined in the Recommendation for at-sea transshipment. As such, the rules for at-sea transshipment contained in Section 3 only pertain to transshipment by large scale pelagic longline vessels (LSPLVs), defined as vessels greater than 24 metres LOA (for a full list of all the application and exemptions in the transshipment measure refer to Table 2).

The requirements for **in-port transshipments** are provided in Appendix 1 and 3. The measure enables port States to implement greater restrictions or requirements on any in-port transshipments, but that at minimum the requirements of Recommendation 12-07 *For an ICCAT scheme for minimum standards for inspection in port* and the requirements of this measure. Similar to the other RFMOs, the master of the fishing vessel instigates the in-port transshipment process by notifying the port State authorities in advance of the intended transshipment, their flag State at the time of the transshipment and again following the transshipment with the completed transshipment declaration. The carrier vessel is then responsible for providing confirmation notification to the port State where the transshipment occurred, transmitting the transshipment declaration to competent authorities and to the landing State where the product will next be landed. In reference to carrier vessels notification of the transshipment declaration to the 'competent authority' it is not clear from the text in Appendix 3 who exactly that competent authority is, for example is it their flag State, the port State, the Secretariat or a different authority (Table 3). There is also the standard language requiring that the port and landing States cooperate with the flag State of the fishing vessel in reviewing the consistency of the reported catches, transshipment declaration and landing data (Appendix 3, paragraph 5).

The rules for **at-sea transshipments** are outlined in Section 3 and Appendixes 1 and 2. As highlighted the exemption to transship at-sea is only permissible for large-scale pelagic longline vessels (LSPLV), that is vessels greater than 24 metres LOA or greater, who have been authorised by their flag CPC to conduct at-sea transshipment (paragraphs 13). A critical difference noted in the ICCAT at-sea transshipment regulations is that the Executive Secretary will issue to the flag States of the carrier vessels the list of LSPLV authorised to operate with its carrier vessels (paragraph 13). This sounds as if the carrier vessels have a specific list of longline vessels with which they are authorised to conduct at-sea transshipments, which if correct, provides a strong mechanism for verification of legal catches. Also, different from other RFMOs, the original, or a copy of the flag State's prior authorisation to conduct at-sea transshipments and, where applicable, from the coastal State for any transshipments inside their waters, must be retained onboard the LSPLV and be made available to the observer to enable verification of the authorisation from the coastal State (paragraph 14 and 15) (Table 4). Any transshipment inside the waters of the coastal States require prior authorisation from the coastal State (paragraph 14). Finally, both the flag State of the LSPLV and the coastal State are also required to review the consistency of the information received (paragraph 25). As is the case for all RFMOs, the rules don't apply in the case of *force majeure* as long as the Secretariat is duly notified; there is no specification of what this notification must include (paragraph 20).

Section Two of the Recommendation outlines the requirements for **carrier vessels**, specifically related to their authorisation, registration and use of VMS. All carrier vessels must be duly authorised and all transshipments can only take place with these authorised carrier vessels (paragraph 6 and 7). An authorised carrier vessel is required to be listed on the publicly available ICCAT Record of Carrier Vessels with information about the vessel submitted by either a CPC (Member and Cooperating non-Contracting Party) or a non-Contracting Party (paragraph 8) (Table 7). This differs from IATTC that only allows the authorisation of carrier vessels of its Members. The ICCAT Recommendation alone requires that the carrier vessel be authorised for either in-port, at-sea or both types of transshipment. All carrier vessels are also required to install and operate a VMS unit (paragraph 11) in accordance with the rules of Recommendation 14-09. This Recommendation requires that VMS on all commercial fishing vessels that exceed 20 metres between perpendiculars⁸ or 24 metres LOA or greater. It would seem that this requirement would make it mandatory for most, if not all, carrier vessels to install and operate a VMS in accordance with the VMS Recommendation (14-09).

The **MCS requirements** in ICCAT are also similar to the other RFMOs, being based on the **Regional Observer Program**, the **Catch or Statistical Documentation Scheme**, and although not stated explicitly for LSPLV's, **VMS** in

⁸ The length of a ship between the forward and after perpendiculars. The forward perpendicular is a vertical line at the intersection of the fore side of the stem and the summer load waterline and the after perpendicular is a vertical line at the intersection of the summer load waterline and the after side of the rudder post or stern post, or the centreline of the rudder stock if there is no rudder post or stern post. Source: <http://marineengineeringonline.com/tag/length-between-perpendiculars/> (Accessed 4 July 2017).

accordance with Recommendation 14-09. All transshipments are required to be observed by an observer from the **Regional Observer Program** (paragraph 19) on the carrier vessel in accordance with the rules set out in Appendix 2. Paragraph 20 and paragraph 13 in Appendix 2, clarifies that unobserved transshipments, whether commenced or continuing, are illegal thereby linking to the IUU fishing measure, albeit not explicitly. The requirements of the ICCAT regional observer program is largely consistent with the IATTC program, with some subtle, but important differences (a comparative summary of key elements of the observer program is provided at Table 5). For example, the program requires:

- that observers have demonstrated ability to identify species, fishing gears, with experience on pelagic longliners and who have completed the ICCAT observer training program (paragraphs 4 and 5(a))
- observers are to inspect the prior authorisations issued by the flag and coastal States (paragraph 6.1(b))
- that if there are violations detected, the observer is required to report it to both the master of the carrier vessel and the company responsible for implementing the program (paragraph 6.1(f))
- the observer, along with observing and estimating the quantities transshipped between the fishing and carrier vessel, is required to do the same at landing to ensure the consistency of the transshipment and the landing reports (paragraph 6.2(j))
- that the observer be given access to the scale used for weighing the transshipped product to enable the observer to verify the weights of fish being transshipped (paragraph 10(b)(iv))
- There is also a greater focus on the observer's safety with many elements caveated with the observer's safety (see for example paragraphs 10(e and f) and 11), and
- the program also seeks to harmonise with other RFMO programs including in relation to the training materials to provide for the cross-vesting of observers between the various RFMOs.

The second element of the MCS program is the provisions related to the **Catch or Statistical Document Program** (paragraph 21). This element links to ICCAT's Recommendations of the same (Recommendations 2001-21, 2001-22, 2003-19, 2006-16, 2011-20, 2013-16, and 2015-10) and requires that flag CPCs of LSPLVs verify and validate that the transshipment declarations and the catch/statistical documents are consistent. Of note is that, validating consistency doesn't mean that the documents are accurate; the implementation of e-reporting and e-monitoring are technologies that, when fully operational, are likely to enable greater verification of the accuracy of these reports. All ICCAT transshipments are required to be accompanied by a catch/statistical document and the transshipment declaration until the first point of landing in the territory of an ICCAT CPC (paragraph 23). Again, it is critical to note that leaves a critical loophole: non-ICCAT or ICCAT members can lawfully land fish, whether IUU fish or not, in ports of non-CPCs thereby laundering catches from the ICCAT Area of Competence.

In relation to the **VMS**, as already highlighted the Recommendation is explicit for carrier vessels (paragraph 11) and, by referencing the VMS Recommendation (14-09), includes all commercial fishing vessels exceeding 20 metres between perpendiculars or 24 metres LOA or greater. Polling is required every four hours. The VMS data is also made available to the observer as part of performing their functions and a key tool for verifying fishing activities under the Regional Observer Program. The limited coverage of the VMS Recommendation and the exceptions in this Recommendation mean that there are potentially vessels that are neither covered by the VMS nor the Regional Observer Program resulting in a risk of illegal transshipment from non-exempted vessels to/from these vessels or for transshipment of species of concern. Unfortunately, the available data does not enable accurate estimates of number of vessels that are not subject to the VMS, but that are able to transship at-sea. Table 6 provides a summary of the VMS requirements against its application to vessels permitted to transship at-sea.

The ICCAT **transshipment declaration**, as outlined above, is required to be completed and transmitted by the fishing vessel to its flag State and, where applicable, the coastal State. The carrier vessel is also required to complete the

declaration and transmit it to the ICCAT Secretariat, the flag State of the fishing vessel, and to the landing State. The details of the information included in the transshipment declaration are provided in Table 8.

Unsurprisingly the **reporting requirements** of the ICCAT Recommendation are very similar to that of the other RFMOs. For in-port transshipments, CPCs of fishing vessel are required to provide an annual report with details of the transshipments by their flag fishing vessels (Appendix 3, paragraph 6). Like the IATTC Resolution there is no specificity of what details are to be included, but it is assumed to meet the requirements of the general obligations set out under the heading of General Provisions (paragraph 22). Here the flag CPCs of LSPLVs are required to report the:

- quantities by tuna and tuna-like catches by species (and if possible by stock) transshipped during the previous year;
- quantities of other species caught in association with the tuna fisheries, where known, transshipped during the previous year;
- list of their flag LSPLVs which transshipped during the previous year; and
- a comprehensive report that assesses the content and conclusions of the observer reports assigned to carrier vessels which received transshipments during the previous year.

The reports from CPCs are to be made available to the Commission and relevant subsidiary bodies; for the Standing Committee on Research and Statistics access to the data is at its request rather than automatic and is subject to ICCAT confidentiality requirements. In addition to the above reports, the Executive Secretary is also required to submit a report on the implementation of the Resolution to the annual session of the Commission which is tasked to review the report to assess CPC compliance with their obligations. This report is publicly available from the ICCAT website.

IOTC

- The current IOTC Resolution, 2017-06, was adopted by the IOTC at its 21st Session. There was one change made to the existing Resolution, the addition of two paragraphs regarding the Regional Observer Program on eight Indonesian carrier vessels. Apart from this alteration, the remainder of the Resolution is basically a carbon copy of the IATTC Resolution, with only a small number of deviations. As such this review will provide a summary that should be read in conjunction to the comments made for the IATTC Resolution above. The IOTC Resolution requires that all transshipments of tuna, tuna-like species and sharks caught in association with tuna fisheries by large scale tuna vessels (LSTVs) take place in-port (paragraph 1) in accordance with the rules in Annex I. Like IATTC, there is an exception to this general prohibition of at-sea transshipment for large scale tuna longline vessels (LSTLVs) (paragraph 3) as long as there is adherence to the rules outlined in Sections 3, 4, 5 and Annexes II and III. Critically there is no definition for either types of the vessels referred to in the measure, that is, not for the LSTV or the LSTLV, generating a significant loophole in the measure. In any future amendments to the Resolution it would be wise to reconsider the language used in Section 5 General Provisions, particularly paragraphs 19 and 21, as it currently refers to LSTLVs and therefore only applies to the at-sea transshipments, rather than applying equally to both the at-sea and in-port transshipments (for a full list of all the application and exemptions in the transshipment measure refer to Table 2).

The rules governing **in-port transshipment** only apply to large scale tuna fishing vessels (LSTV), which as noted above is not defined and means that all other vessels are not required to meet the regulations provided in Annex I of the Resolution. In summary, lawful in-port transshipments require actions by both the fishing and carrier vessels to the port, flag and landing States. The master of the fishing vessel initialises the process by notifying the port State authorities 48 hours prior to the intended transshipment, to their flag State authority at the time of the transshipment information about

the transshipment, and no later than 15 days after the transshipment transmits the completed transshipment declaration to its flag State (Annex I, paragraph 2). The carrier vessel must transmit no later than 24 hours prior to the intended transshipment the quantity of catches expected to be received to the port State authorities and the completed transshipment declaration to the 'competent authority' within 24 hours of the completion of the transshipment (Annex 1, paragraph 3). Importantly, there is no guidance on which 'competent authorities' the transshipment declaration is to be transmitted; the flag, port, landing, Secretariat? Finally, the master of the carrier vessel must provide a transshipment declaration to the landing State authorities within 48 hours of the intended landing. To support the objective of this measure, Annex I requires that the port and landing States take action to verify the accuracy of the information (contained in Annex II) they receive and to cross-reference the information with that of the LSTFV's flag State catches reports (Annex I, paragraph 5). The information requirements at each stage are summarised in Table 3.

The Resolution clearly articulates that the procedures for **at-sea transshipment** are only applicable for large-scale tuna longline fishing vessels or LSTLV (paragraph 3) and authorised carrier vessels in accordance with Sections 3, 4, 5 and Annexes II and III. As noted above, there is no definition of what a LSTLV is; some IOTC members consider that a LSTLV should be read in conjunction with Resolution 15/04 on the record of authorised fishing vessels. This Resolution requires all vessels 24 metres LOA and greater, and those vessels less than 24 metres when operating outside their national waters, be included on the IOTC record of authorised fishing vessels. However, given that there is no cross-referencing between these two resolutions, and considering the large number of vessels just smaller than 24 meters LOA, there is no agreement either way and it would be wise to implement a definition that captures the greatest number of possible vessels. CPCs, both Members and Cooperating non-Contracting Parties, alone authorise their LSTLV to participate in at-sea transshipment and only those LSTLV that have been granted prior authorisation from their flag CPC are permitted to conduct at-sea transshipment (paragraph 4 and 11). In accordance with paragraph 12, a LSTLV can seek prior authorisation up to 24 hours prior to the intended transshipment from its flag State. The notification obligations are not onerous placing obligations on both the fishing and carrier vessels (Table 4). Importantly, there is no clarity regarding what constitutes the 'authorisation' in the resolution as such the Author is of the understanding that there are a range of 'authorisations' received by the Secretariat. For example, it may be a single document issued by the flag State to each relevant vessel, or is the list of vessels issued by the flag State to the Secretariat for observer deployment? Clarification of these types of issues is critical in assessing compliance with the measure. The key differences with the IATTC Resolution, are twofold. 1. the master of the carrier vessel is required to confirm that the LSTLV is participating in the IOTC programme to monitor at-sea transshipments (the Regional Observer Program) including payment of the required fees (paragraph 14), and 2. that the IMO number is part of the required notifications for both the carrier and the LSTLV (paragraph 12(a)(b)). It is also worth noting that the geographic location of the fishing grounds is required to be notified by the fishing vessel, but there is no reference to what this means. The inclusion of reporting of area is important as it provide a mechanism for verifying the vessels fishing activities. However, insufficient clarification on what is meant by geographical area, as is the case in the IOTC Resolution (and others), it may not provide sufficient detail for MCS and science purposes. For example, it may be referencing the FAO statistical areas, of which there are two covering the entire Indian Ocean and the adjacent seas. Consistent with international law, all at-sea transshipments by LSTLVs inside the EEZ of a coastal State must be first authorised by the coastal State concerned (paragraph 10⁹). As is the case for all RFMOs, the rules don't apply in the case of *force majeure* as long as the Secretariat is duly notified; there is no specification of what this notification must include (paragraph 18).

The requirements for the **carrier vessels** are almost identical to the IATTC requirements; the differences that are highlighted below. Carrier vessels are required to be authorised to receive transshipments at-sea in the IOTC Area of Competence, but there is a significant deviation from the IATTC Resolution in that the IOTC does not specify that the vessel must be flagged to a CPC. Specifically, IATTC requires that '*...authorised by their respective flag CPC...*'

⁹ Like IATTC, the existing paragraph 10 should be separated at the full-stop creating 10bis so that it is clear that the rest of the at-sea requirements apply to all at-sea transshipments.

compared to the IOTC text ‘...authorised to receive tuna and tuna-like species and shark at-sea...’. This, of course, creates significant challenges related to controlling, monitoring and calling to account these vessels. Like IATTC, the IOTC resolution is ambiguous in relation to the location of the catch of tuna and tuna-like species. The resolution simply refers to establishing and maintaining a list of authorised carrier vessels authorised to receive transshipments from LSTLVs in the IOTC Area of Competence, but there is no reference to the tuna being required to be caught inside the IOTC Area of Competence. The information required to be provided by the flag State in relation to each of the authorised carrier vessels is identical to IATTC, likewise the public nature of the list (Table 7). Unfortunately, the requirements for the VMS on carrier vessels in the IOTC resolution is poorly defined. Paragraph 9 simply requires that authorised carrier vessels install and operate a VMS; there is no cross referencing with the VMS Resolution, 15-03, which requires satellite-based VMS data be reported solely to the flag State for all vessels on the high seas, but only vessels greater than 24 metres when operating in their flag States EEZ.

IOTC’s **MCS requirements** consist of the **Regional Observer Program** outlined in Annex III, **VMS** although not explicitly, and the **IOTC Statistical Documentation Scheme**. All authorised carrier vessels are required to have an observer from the **IOTC Regional Observer Program** onboard to observe each at-sea transshipment operation by LSTLVs and that the observer is to be onboard prior to the commencement or continuation of any at-sea transshipment (paragraphs 17 and 18 and Annex III, paragraph 1). The Executive Secretary is responsible for the appointment and placement of the observer to each of the authorised carrier vessels on the IOTC list of observers. Like CCSBT, IATTC and ICCAT, there is a suite of obligations for the observer on the fishing the carrier vessel including, *inter alia*:

- the role of the observer is to observe compliance with this Resolution, specifically ensuring consistency between the transhipped quantities and the transshipment declaration and/or statistical documentation (where relevant)
- to the extent possible, that the observer not be a national of the flag State of the carrier vessel
- immediately report any violations identified to the master of the carrier vessel
- issue a daily report of the carrier vessel’s transshipment activities (a summary of the previous five days is sent to the Observer Coordinator which is forwarded to the Secretariat) and submit a general report to the Secretariat within 20 days of the end of the observation period (the deployment period), and
- of note is that like the ICCAT Recommendation, but unlike the IATTC Resolution, IOTC requires that its ROP observers to have completed the technical training as outlined in the IOTCs guidelines.

The two new paragraphs in the new Resolution (paragraphs 19 and 20) provides a two-year pilot program for the use of national observers from Indonesia’s national observer program on its eight flagged wooden carrier vessels as listed in Annex IV of the Resolution. They are still required to meet all of the existing tasks and reporting including having been trained to the standard of at least one of the RFMOs; Indonesia is a member of IOTC and WCPFC and in 2016 its national observer program was successfully audited against the WCPFC requirements. A comparative summary of key elements of the IOTC Regional Observer Program is provided at Table 5.

As noted above, the Resolution requires that all carrier vessels are equipped with a **VMS** (paragraph 9) but unfortunately does not reference the relevant Resolution (15-03), which also establishes the requirements for fishing vessels. For fishing vessels, VMS is required on all vessels on the high seas and all vessels 24 metres LOA or greater irrespective of the location of their fishing. As noted, this leaves smaller vessels operating inside their flag EEZ exempted from the VMS requirements and therefore able to conduct at-sea transshipments undetected. Table 6 provides a summary of the VMS requirements against its application to vessels permitted to transship at-sea.

The **Statistical Document Programme** (Resolution 01-06, and 03-03) forms the second component of the MCS arrangements. Like the IATTC Statistical Document Program, the IOTC program is only relevant for bigeye tuna; no other IOTC species are included in the scheme. Moreover, it only applies to frozen bigeye tuna imported or re-exported into the

territory of IOTC CPCs; it does not include bigeye tuna caught by purse seine and pole and line vessels that is destined for canneries in the IOTC Area of Competence. The transshipment Resolution calls for the validation of statistical documents by the flag State of the LSTLV for catches and for transshipments using the observer reports. Again, it is important to note that this doesn't imply accuracy of the information only consistency between the various reports. All CPCs are required to have both a Statistical Document and a copy of the Transshipment Declaration when bigeye tuna is imported into their territory (paragraph 21). Finally, all imports of tuna, tuna-like species and sharks caught in association with these fisheries must be accompanied by the transshipment declaration until the first point of landing (paragraph 23).

The IOTC **transshipment declaration**, as outlined above, is required to be completed and transmitted by the fishing vessel to its flag State. The carrier vessel is also required to complete the declaration and transmit it to the IOTC Secretariat, the flag State of the fishing vessel, and to the landing State. The details of the information included in the transshipment declaration are provided in Table 8.

The **reporting obligations** in the Resolution include general requirements and those related to in-port transshipment. For in-port transshipments, the flag State of the LSTV is required to report to IOTC details of the transshipments by its vessels (Annex I, paragraph 6), but there is no information on what details are to be provided, nor when the report is to be provided by or what action the Commission or its subsidiary bodies are to take. The general reporting requirements (paragraph 22) provide greater clarity and are of a general nature, but it would be advantageous to make very clear that these obligations are applicable to all transshipments as this paragraph is not referenced in Annex I. The resolution stipulates that CPCs are required to provide an annual report to the Executive Secretary by 15 September containing the:

- quantities by species transshipped in the previous year;
- their list of LSTLVs (only) on the IOTC Record of Fishing Vessels that transshipped in the previous year, and
- a comprehensive report that assesses the content and conclusions of the observer reports assigned to carrier vessels during the previous year.

The Executive Secretary is also required to submit a report on the implementation of the Resolution to the annual session of the Commission who is tasked to review the report to assess CPC compliance with their obligations (paragraph 24). Historically the IOTC Compliance Committee was part of the Commission meeting, hence the reference to the Commission reviewing compliance with the measure. In any amendments to this measure, the roles and process of the measure needs to be updated to reflect the changes in the organisation's practices. This report is publicly available from the IOTC website. The final and critical difference from CCSBT, IATTC and ICCAT measures is that the IOTC Resolution makes provisions for the Executive Secretary in reviewing the raw data, data summaries and reports, is mandated to indicate evidence of possible infractions to the relevant flag CPC (of the carrier or LSTLV). The relevant CPCs are required to investigate any allegations at least three months prior to the Compliance Committee meeting where the full report, evidence and responses is considered by the same group (paragraph 23).

WCPFC

- Like many WCPFC measures, the WCPFC approach to transshipment management is considerably different from the other tuna RFMOs. First, the basis for transshipment management is Article 29 and Article 4 of Annex III of the Convention which is in turn given effect through the current Conservation and Management Measure, CMM 2009-06. The CMM applies to all transshipments of highly migratory species (HMS) caught in the Convention Area, except for catches solely within archipelagic waters or territorial seas, and provides specific rules and procedures thereby giving effect to Article 29(3) of the Convention. Secondly, is that the Convention also makes clear that the rules governing transshipment in-port or in waters under national jurisdiction are subject to the national laws of the relevant port State: '*...shall take place in accordance with the applicable national laws*' (paragraph 2 of the Convention), consequently the WCPFC CMM details the regulation of transshipment on the high seas only. The Convention, through Article 29(4) and Article 4 of

Annex III, provides overarching guidance for at-sea transshipment, but unlike other RFMOs, there is only a general prohibition of at-sea transshipment for purse seine vessels (Article 29(5) of the Convention and paragraph 25). In the CMM, the management of transshipment, unlike other RFMOs, is split by vessel, with Section two covering the management of transshipment by purse seine vessels and section three for all other vessels. Given that transshipment in-port and in waters under national jurisdiction are subject to national laws, these sections are basically setting the rules for **transshipment at-sea**. Another key difference is that the WCPC CMM provides rules for the transshipment to and from non-CCM vessels which is, where applicable, simply managed in the same way as the party's vessels despite the RFMO having limited scope over the non-party themselves (Section 1A) which is formally established under CMM 2013-10, Section D. There is also a direct reference to providing support to developing States to support the implementation of the measure (paragraph 18). Like all RFMOs, transshipments are permissible in the case of *force majeure* or serious mechanical breakdown (Section IB – paragraph 23), with the stipulation that any instance must be reported to the Executive Director within 12 hours of the transshipment (paragraphs 12 and 24) and provide all information outlined in Annex III of the measure (for a full list of all the application and exemptions in the transshipment measure refer to Table 2).

As noted, the **Convention**, consisting Article 29 and Article 4 in Annex III, provides the foundation for the management of transshipment in the Convention Area. Noting the need to collect accurate information, Article 29(1) makes clear that parties are to, the extent practical, promote the use of in-port transshipment into designated ports within the Convention Area. As noted above, **transshipments in-port or in waters under national jurisdiction** are subject to the national laws of the relevant party (Article 29(2) and paragraph 4 of the CMM), which may be more stringent than those of the Convention or relevant CMM. Paragraph 5 of the CMM reiterates Article 29(1) of the Convention regarding the designation of ports for transshipment and further defines port as including '*...offshore terminals and other installations for landing, transshipping, processing, refuelling or resupplying*'. None of the other RFMOs define the term in-port. In relation to at-sea transshipment, the Convention does not explicitly prohibit at-sea transshipment in areas beyond national jurisdiction, but makes clear that it must comply with Article 4 of Annex III (*Terms and Conditions for Fishing*) and any additional procedures agreed by the Commission. Article 4 of Annex III consists of two paragraphs: 1. requiring that operators adhere to any rules and procedures defined by the Commission, and 2. that the operator (and the crew) provide assistance and not obstruct or intimidate people authorised to monitor transshipments, while minimising disruption to the vessel.

Article 29(5) and **Section two** of the CMM stipulates that at-sea transshipment is prohibited for **purse seine** vessels (paragraph 25) and that there is to be no commencement of transshipment in the high seas of the Convention Areas under any circumstances (paragraph 32). It is critical to note that although there is a general prohibition on at-sea transshipment by purse seine vessels, the CMM provides for the issuing of exemptions under a mechanism whereby CCMs can apply for an exemption. There are three possible exemptions available. Two exemptions that to date have not submitted an application for approval by the Commission are for existing small-scale purse seine vessels (holds of less than 600mt) flagged to Papua New Guinea and Philippines as long as they meet specified criteria (for example that they are operating in tandem with freezer vessels to freeze the catch) (paragraph 25(a)(i-iii)). Importantly, under 2016-01 Important to note, that group operations of Philippine flagged purse seines vessels are permissible in High Seas Pocket 1 as per CMM 2016-01. The third exemption, which in accordance with paragraph 26 could be increased subject to the Commission's discretion, is currently only applicable to New Zealand flagged purse seiners, but allows for at-sea transshipment by purse seine vessels who's fishing, transshipment and landing is conducted solely within its own flag waters (paragraph 25(b)). The process of issuing this third type exemption includes submission of an application to the Executive Director which is assessed by the Technical and Compliance Committee with recommendations made to the Commission. The Commission itself makes the final determination on granting, or not, the exemption and is able to apply

further conditions to ensure effective management (paragraph 26-28) and any vessels authorised to transship at-sea are required to be on a public list (paragraph 30-31).

Section three provides the rules for **transshipment by all other vessels** (other than purse seine), for example longline, troll, pole and line. Transshipment is permissible from these vessels in waters under national jurisdiction, but not necessarily their own flag waters, and are subject to the domestic legislation and policies of the relevant coastal State (paragraph 33); in practice, this requires authorisation by the flag and coastal States. On the high seas, transshipment from these vessels is prohibited, but, like the purse seine vessels, there is a clause enabling exemptions to be issued to any of these types of vessels. To obtain the exemption to allow the conducting of at-sea transshipment on the high seas of the WCPFC Convention area, a CCMs alone needs to simply determine and advise the Commission that it is 'impractical' for the operation of these vessels to conduct their transshipments in-port (paragraph 34). The determination by the flag CCM must meet guidelines to be developed, but that have yet to be endorsed nor implemented by the Commission, and in the meantime to make the assessment based on two simple metrics: 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 (paragraph 37(a-b)). Of note is that 'significant' and 'substantial' are subjective and not defined. Furthermore, it is likely that all conservation and management measure place some kind of change on the fishing activity and possibly the cost of conducting fishing operations; as such the effectiveness of such criteria is questionable as a management or monitoring mechanism.

To evaluate the monitoring and verification procedures, all exemptions are subject to a review by the Technical and Compliance Committee after a period of three years and then every two years hence (paragraph 36), however, to the authors knowledge, this review has never been undertaken. In terms of management, paragraph 35 stipulates that for any transshipment on the high seas CCMs responsible (flag or charter) must advise the Commission of its procedures for managing and monitoring the at-seas transshipments, provide a list of vessels subject to the exemption, notify the Executive Director prior to any transshipment the information in Annex III, transmit the completed transshipment declaration, and to submit to the Commission its plan for moving its vessels to transshipment in-port. There is also a requirement for the CCM responsible for the vessels to notify the Executive Director all information outlined in Annex III of the CMM (paragraph 12). In considering the robustness of this measure, it is quite clear that the current drafting could enable exemptions for all vessels on the WCPFC register from in-port transshipment which it is assumed was not the intent of Article 29 of the Convention. As such there is scope to strengthen the CMM, to allow for at-sea transshipment, but under stricter conditions, and subject to other rigorous MCS measures. A comparison of the requirements for in-port and at-sea transshipment are provided in Table 3 and Table 4 respectively.

Unlike the other RFMOs discussed above, there is no specific requirements to establish a list of authorised **carrier vessels** in WCPFC. Rather fishing vessels are defined in Article 1(e) of the Convention as being '*any vessel used or intended for use for the purpose of fishing...and including carrier vessels...*'. Consequently, carrier vessels operating outside their flag waters are required to be authorised and listed on the Record of Fishing Vessels in accordance with CMM 2013-10 *WCPFC Record of Fishing Vessels and Authorisation to Fish*. As highlighted above, transshipment to or from non-CCM vessels is prohibited, with two exceptions. 1. for carrier vessels registered to non-CCMs and listed on the Interim Register of non-CCM Carrier and Bunker Vessels, and 2. fishing vessels licenced to fish in the EEZ of a CCM. However, a non-CCM vessel is prohibited from transshipment to, or from, a non-authorised non-CCM vessels; that is a vessel must either be on the Record of Fishing Vessels, on the Interim Registry of Carrier and Bunker Vessels, or chartered to a coastal State and forming an integral part of their domestic fleet to be authorised to participate in transshipments of WCPFC HMS (Table 7).

The **MCS requirements** outlined in the measure to support the management of transshipment are the **regional observer program (ROP)**, the **at-sea boarding and inspection scheme, VMS** and the **transshipment declaration**. The rules governing the **ROP** are outlined in CMM 2007-01 *Conservation and Management Measure for the Regional Observer Scheme* and 2012-03 *Conservation and Management Measure for Implementing the Regional Observer Programme by Vessels Fishing for Fresh Fish North of 20°N*. These two measures are also complemented by CMM 2017-03

Conservation and Management Measures for the Protection of WCPFC Regional Observer Programme Observers. Paragraphs 13-17 of the transshipment measure providing specificity in relation to the coverage required in relation to transshipments. For example, paragraph 13 outlines that 100% observer coverage is required on the carrier vessels who are receiving fish from vessels equal to or less than 33 metres (the observer can also be on this fishing vessels off-loading to carriers of ≤ 33 metres if desired), troll, pole and line and all other vessels. Of note is that although the ROP is managed and executed by the WCPFC Secretariat, it is implemented through the use of existing regional, sub-regional and national observer programs. Although, the existing programs must meet, and are audited against, the WCPFC standards, all observer reports are sent directly to their national authority only. It would be best if the reports were sent simultaneously to the national authority and the WCPFC Secretariat.

Paragraph 14 of the transshipment CMM provides a very simple role of the observers: to monitor the implementation of the measure and to confirm to the extent possible that there is consistent reporting between the fishing and carrier vessels. Observers are to record and report information from the transshipment declaration, logbooks, VMS and port of landing to form the basis of their work including for transshipment activities on the high seas but all reports are only provided to the national authority, this includes for transshipment activities on the high sea. As such, no individual transshipment observer reports are provided to the Secretariat, a critical loophole that needs to be addressed to enable cross referencing and monitoring compliance with the provisions of the measure. In addition, the 2007 CMM outlines that the role of the observer is two-fold: science and MCS, meaning that the information collected while onboard can be used for compliance purposes, even though the observer is not a compliance officer. Acknowledging the need for greater specificity regarding ROP observer activities, the Technical and Compliance Committee (TCC) has made provision for the development of these protocols and data fields in its workplan (WCPFC-TCC12-2016-IP10). Similar to other RFMOs, the observer has access to both the carrier and fishing vessel to support their work, the measure stipulates that there can only transshipment with a single fishing vessel at any one time (paragraph 15 and 16 respectively). There is also an allowance for the cross-endorsement of observers with IATTC through the ROP which would be then also be applicable to the transshipment measure in the IATTC/WCPFC overlap area. However, there is a lack of clarity regarding the reporting structure from observers working in this area. A comparative summary of key elements of the observer program is provided at Table 5. In relation to observer coverage north of 20°N, CMM 2012-03 requires 5% observer coverage for vessels fishing for fresh fish beyond their flag State EEZ only. CMM 2017-03 provides more rigorous rules for the management arrangements to ensure the safety of WCPFC ROP observers.

Consistent with Article 26 and Annex III, Article 6(2) of the WCPFC Convention, the Commission adopted CMM 2006-08 *Boarding and Inspection Procedures*, which apply in the high seas areas of the Convention Area only, for the purpose of ensuring compliance by vessels with the CMMs adopted by the Commission. All Contracting Parties can undertake **high seas boarding and inspection** (HSBI) subject to the registration of the authorised patrol vessel and authorised inspection personnel with the Secretariat (paragraphs 12-17) and all Contracting Parties are required to ensure that their flag vessels accept HSBI (paragraph 7). In relation to the inspection, inspectors are given four hours to check, *inter alia*, the vessels licence, fishing gear, records, facilities, fish and fishery products to verify compliance with the WCPFC CMMs, unless there is a serious violation detected. The inspecting authorities are required to prepare and submit an inspection report to the flag State of the fishing vessel within three working days except in the event of detection of a serious violation (paragraphs 30-31). In this instance, the inspector will immediately notify the authorities of the flag vessel whereby the flag State authorities assume responsibility for the investigation (paragraphs 32-37). All Contracting Parties with authorised HSBI vessels/ personnel are also required to submit an annual report of the HSBI inspections carried out in the previous year (paragraphs 40-41) as well as violations observed and resultant reported actions by the flag State. SEAFO is the only other RFMO with an active HSBI scheme; IOTC has established a working party, but as yet it is not fully operational.

The WCPFC **VMS** consists of the Commission VMS for the high seas and the FFA VMS for the internal waters of the Pacific Island countries together they are referred to as the Pacific VMS. The measure requires that all fishing vessel

fishing for highly migratory fish stocks on the high seas have a report to the Commission VMS on the high seas of the Convention Area (paragraph 6(a)). Given the broad definition of 'fishing' in WCPFC this includes carrier vessels. The VMS Standards, Specifications and Procedures requires that the VMS is capable of two-way, simultaneous polling to the flag State and the WCPFC Secretariat with the default polling of four hours. This largely complements the transshipment measure as all vessels on the high seas are required to have VMS and therefore are able to be independently monitored by the VMS service provider at the WCPFC Secretariat. Although unlikely, with a default polling of four hours it is possible for transshipment to occur between polls, particularly between fishing vessels (rather than with the carrier vessel, possibly enabling illegally caught fish to enter the supply chain. Table 6 provides a summary of the VMS requirements against its application to vessels permitted to transship at-sea.

The requirements of the **transshipment declaration** are outlined in Annex I (Table 8). Unlike other RFMOs, Annex 1 simply provides the information to be included on a transshipment declaration rather than provide a specific RFMO form to be completed. Both the offloading and receiving vessels are required to complete and transmit to the Executive Director a transshipment declaration which applies equally to in-port and at-sea transshipments within the Convention Area (paragraph 10).

The requirement to report is set out in Article 29(3) of the Convention with the specific **reporting obligations** set out in paragraphs 2, 7, 9-12, 24, 31, and Annex III of the CMM. Importantly, given that the measure applies to all transshipments of HMS caught inside the Convention Area, there is an obligation to report transshipment of these even when the transshipment is undertaken outside of the Convention Area (paragraph 2). The general reporting obligations stipulate that CCMs provide a report of all transshipment activities in the previous year as a part of their Annual Report (the Part One report) and in doing so meet the requirements in Annex II (paragraph 11). Annex II requires that CMMs report:

- quantities by weight of species broken down by: offloaded and received; transhipped in-port, at-sea in waters under national jurisdiction, in the high seas; inside and outside the Convention Area; caught inside and outside the Convention Area; species; product form; fishing gear used.
- the number of transshipments broken down by: offloaded and received; transhipped in-port, at-sea in waters under national jurisdiction, in the high seas; inside and outside the Convention Area; caught inside and outside the Convention Area; fishing gear.

Part One reports are publicly available however, the implementation reports are not publicly available. Due to the complexity of chartering in WCPFC, paragraph 7 articulates that the reporting obligations fall to the flag State except for vessels under charter and an integral component of a domestic fleet, which in that case, falls to the chartering/ leasing State. This includes non-CCM carrier and bunker vessels under charter. However, for non-chartered carrier and bunker vessels, the master of the vessel is required to report directly as required in the rest of the CMM (paragraph 9 and 22). There is also an annual report of WCPFC transshipment presented to the Technical and Compliance Committee using summary information collected at the Secretariat. This report is publicly available the WCPFC website.

SEAFO

SEAFO, the South East Atlantic Fisheries Organisation, is a RFMO mandated with the management of fishery resources in the high seas of the south-east Atlantic Ocean. There are seven contracting parties: Angola, the EU, Japan, Republic of Korea, Namibia, Norway, and South Africa. Article 1(l) defines fishery resources as 'resources of fish, molluscs, crustaceans and other sedentary species within the Convention Area, excluding: 1. sedentary species subject to the fishery jurisdiction of coastal States pursuant to article 77 paragraph 4 of the 1982 Convention; and ii. highly migratory species listed in Annex I of the 1982 Convention. Critically, there is no jurisdiction over these resources in the EEZ of any coastal State bordering the Convention Area. As highlighted above and in accordance with Article 16 of the SEAFO Convention, SEAFO's approach to MCS is outlined in the 2015 *System of Observation, Inspection, Compliance and*

Enforcement (the System). Along with VMS, record of vessel and IUU listing, the System includes the management of transshipment: Articles 5, 14 and 24. Like the tuna RFMOs, the management of transshipment in SEAFO needs to be considered in the context of the complete MCS system.

- In relation to **at-sea transshipment**, Article 5 of the System states that *'Each Contracting Party shall ensure that its vessels are not involved in transshipment in the Convention Area on fishery resources covered by the Convention'*. This is generally taken to be a prohibition of at-sea transshipment, but it is important to consider the specific details of the language used in the Article, specifically related to 'Convention Area', 'vessels' and 'not involved in'. The Convention Area is limited to the high seas of the south-east Atlantic. There is no coverage of the EEZ as this is a high seas RFMO only, but it is possible for at-sea transshipment by SEAFO vessels inside the EEZ of an adjacent coastal State. In relation to vessels, for MCS purposes vessels refers to: 1. *any vessel used or intended for use for the purposes of the commercial exploitation of fishery resources, including mother ships, any other vessels directly engaged in such fishing operations, and vessels engaged in transshipment*, and, 2. *any vessel engaged in fishing, as defined in (h), for scientific research purposes, including permanent research vessels or vessels normally engaged in commercial fishing operations, or fishing support activities* (Article 1(J)(k) of the Convention respectively and Article 1 of the System). This provides full coverage of all possible vessels in the fishery. In relation to the final phrase, the Article requires that flag States *'shall ensure its vessels are not involved in transshipment'*, which falls short of actually requiring the implementation of a prohibition on at-sea transshipment for vessels authorised in the fishery in the relevant flag State regulations. Although the language could be strengthened to require that flag States implement a prohibition of transshipment, this is the strongest language of all RFMOs in relation to the management of transshipment (for a full list of all the application and exemptions in the transshipment measure refer to Table 2).

The rules for **transshipment in-port** are outlined in Article 14 and Annex IV of the System. The language in the Article seems to be limited to guidance for in-port transshipment to carrier vessels as the Article is silent on transshipment to an onshore facility, but it is assumed that these rules apply together with the port State Controls (see the MCS measures below). From the outset in-port transshipments are only permitted in the ports of Contracting Parties and, when transshipping to a carrier vessel in-port, there must be prior authorisation for the transshipment from both the flag State and the port State (paragraph 1). Of note is that the transshipment can be made to a carrier vessel flagged to a non-Contracting Party. The majority of the processes are very similar to the tuna RFMOs, with one notable exception, that the onus of reporting the of the intention to transship, including the quantities being transshipped, falls to the flag State of the fishing vessel which notifies the flag State of the carrier vessel directly, and that both States are required to verify the amount transshipped are consistent with the information collected in the Transshipment Declaration (paragraph 1). In the tuna RFMOs, this notification is between the fishing vessel and the relevant State authorities (port State, carrier vessel flag State, etc.). The notification requirements for in-port transshipments are provided in Table 3.

There are no specific requirements to create a list of **carrier vessels**, rather, similar to WCPFC, Article 4 of the System requires that all vessels authorised to operate in the Convention Area are included on the annual submission by the flag State to the Secretariat (Table 7). Like many RFMOs, this Article also calls for Contracting Parties to only register vessels for whom it can assert flag State control, and to take measures to ensure that their flag vessels comply with SEAFO obligations (Article 4(4)). Directly related to the inclusion on the record of authorised vessels is the requirement to carry onboard relevant permits and authorisations issued by the flag State, and to ensure both the vessel (Article 6) and gear (Article 7) are able to be readily identified.

The key **MCS requirements** that underpins monitoring compliance with the transshipment regulations are the: **VMS**, the **observer program**, **inspection at-sea**, **port State measures** and the **Transshipment Declaration**. Article 13 of the

System requires that all vessels be equipped with a satellite-based **VMS**. Table 6 provides a summary of the VMS requirements against its application to vessels permitted to transship at-sea. Like many other RFMOs, SEAFO requires that the unit can continuously collect and automatically transmit, at any time and at a minimum, every two hours, to the flag State only. There is no requirement to simultaneously transmit the required information to an independent third party, such as the Secretariat, to enable verification of the data. Rather, flag States are required to submit copies of the reports from its flag vessels to the Secretariat as soon as possible after the transmission from the vessel or no later than 24 hours following receipt from the vessels (Article 13(2)). SEAFO requires that each VMS transmission includes:

- the vessel's identification;
- the most recent geographical position of the vessel (longitude and latitude) with a margin of error lower than 500 metres, with a confidence interval of 99%;
- the vessels course and speed; and
- the date and time that the position of the vessel has been transmitted.

In relation to SEAFOs **Observer Program**, it does not support MCS of the transshipment measure, as Article 18 of the System provides for the implementation of a scientific observer program only. It requires that all vessels operating in the area carry an observer to collect scientific data, but there is no mention of whether this data can also be used for MCS purposes. It is also silent on whether all vessels are required to have 100% observer coverage on all trips. Unlike many of the tuna RFMOs, the observer placed onboard the vessel is from the flag State of the vessel, which may be considered to be less transparent than if the observer was a non-national of the flag of the vessel. There is no specification of the required training, duties or role of the observer, but there are specific observer forms to be completed related to pot, longline and trawl fishing activities. In relation the observer reports, paragraph 2 of Article 18 states that Contracting Parties require observers to submit the information collected for its flag vessels to the Secretariat as soon as possible, but within 30 days of the end of the trip. A comparative summary of key elements of the observer program is at Table 5.

Along with WCPFC, SEAFO is the only RFMO with at-sea inspection procedures which can support the implementation of the transshipment regulations. Articles 15-17 set out the procedures for the **at-sea inspection** (Chapter IV). The at-sea inspection program is based on the Part IV of the United Nations Fish Stocks Agreement (UNFSA) (Article 15). SEAFO requires that Contracting Parties notify the Secretariat of the names of its inspectors, plus the contact information including the radio call sign for each of its inspection vessels (Article 16). All inspections are required to report all violations on the SEAFO Inspection Report in accordance with the requirements on Annex V (Article 17 paragraph 1(a)). Importantly this report is to be counter signed by both the inspector and the master of the vessel at the time of the inspection (paragraph 1(b)). A copy of the report is provided to the master upon disembarkation, together with any video and photographic evidence to the flag State of the inspector no later than 15 days following the completion of the inspection (paragraph 1(c-d)). This is then forwarded to the Secretariat for dissemination to the relevant flag State of the vessel where investigations of the alleged violations are expected to take place (paragraphs 2-4). Annex V requires the following information: name and nationality of the inspector(s); name and number of the vessel carrying the inspector(s); and for the vessel being inspected: the name; registration number; flag; port of registration; international radio call sign; the type; length; GT; Masters name; the name and address of the owner(s); the vessels activity including when and where sighted; and details of the inspection, including, *inter alia*, opinions regarding the position information, the catches retained onboard, and the compliance with SEAFO obligations.

Chapter VI (Articles 19-26) of the System covers the **port State controls** in ports of coastal States adjacent to the Convention Area only. Given the requirement to use in-port transshipment these controls form a particularly important component for monitoring transshipments. Like the FAO Port State Measures Agreement, SEAFO requires that Contracting Parties notify the Secretariat of the ports it has designated for use by foreign vessels and that have sufficient means of conducting in-port inspections of these vessels (Article 20). SEAFO requires that, consistent with the

requirements of carrier vessel notifications (Table 7), carrier vessels provide 48 hours prior notification together with the SEAFO Transshipment Declaration to the port State authorities (Article 21). Port States reserve the right to authorise or deny access and entry by the foreign vessel to its ports. In instances of authorised entry, the vessel is required to provide all relevant authorisations to the port State authorities upon entry (Article 22, paragraph 2). Port States can deny access based on a presumption of IUU fishing, where required authorisations are not held, or in the case of insufficient communication from the vessel regarding its compliance with SEAFO measures. In this instance, the port State authority is required to communicate its decision directly to the master of the vessel, to the flag State and to the Secretariat which will make the information available on the SEAFO website. In addition, there is a requirement that any vessel on any IUU list be denied port access (paragraph 4), unless the vessel will be inspected on arrival to port (paragraph 5). Port States are required to carry out inspections by duly authorised personnel in accordance with the procedures in Annex VIII and report all inspections in accordance with Annex IX, these reports are then sent to the flag State of the vessel and the Secretariat (Article 24). Annex VIII requires that inspectors verify, *inter alia*, the vessels identity, authorisations, documentation held onboard, fishing gear, fishery resources including verification with the reported catches, and compliance with SEAFO obligations. Annex IX provides a summary report of the inspection including any differences between the reported and retained catches.

The details of the **SEAFO Transshipment Declaration** and the rules governing its use are provided in Annex IV of the System. The information collected in the transshipment declaration itself are similar to the tuna RFMOs (Table 8). Each individual transshipment requires its own declaration that is completed by the master of the fishing vessel. The original Transshipment Declaration is provided to the flag State of the fishing vessel within 48 hours and a copy of the declaration provided to the master of the carrier vessel at the completion of the transshipment. If the transshipment is being made to a carrier vessel flagged to a non-Contracting Party, the Transshipment Declaration is to be sent as soon as possible to that flag State, despite it being a non-contracting party.

SEAFO **Reporting Obligations** includes both an annual report from each member detailing all of the in-port transshipments and from the Secretariat of the compliance with the requirements (Article 14, paragraph 4). The Secretariat has confirmed that the annual compliance report is publicly available from the website¹⁰.

CCAMLR

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) is grounded in the Antarctic Treaty. It was established to 'conserve Antarctic marine life' in direct response to the growing commercialisation of the krill fishery; it is not an RFMO. The CCAMLR Convention applies to all Antarctic living marine resources south of the Antarctic Convergence zone (Article 1). Article 1(2) defines Antarctic living marine resources as '*the populations of finfish, molluscs, crustaceans and all other species of living organisms, including birds...*'. There are some, albeit very few, EEZs within the area south of the Antarctic Convergence and as such CCAMLR can be largely considered a high seas organisation. There are 25 members of CCAMLR: Argentina, Australia, Belgium, Brazil, Chile, China, the EU, France, Germany, India, Italy, Japan, Republic of Korea, Namibia, New Zealand, Norway, Poland, Russian Federation, South Africa, Spain, Sweden, the UK, the USA and Uruguay. CCAMLR permits at-sea transshipment through Conservation Measure (CM) 10-09 *Notification system for transshipments within the Convention Area* adopted by the Commission in 2011. Like the other RFMOs considered, the transshipment measure must be read in conjunction with other relevant MCS measures.

- In summary CM10-09 provides the regulations for **transshipment notifications** within the Convention Area. Unlike other CCAMLR measures, the transshipment measure seems relatively weak in its ability to manage

¹⁰ The author has been unable to secure a copy of the SEAFO report. Moreover, the Secretariat stated to the author that there have been no reports of transshipments since 2012, this is assumed to be referring to at-sea transshipment rather than in-port transshipment.

and monitor transshipments within the Convention Area. There are no specific conservation measures adopted to regulate **in-port transshipment** of living marine resources caught within the Convention Area. Rather CCAMLR has adopted CM 10-03 on Port Inspections of Fishing Vessels carrying Antarctic Marine Living Resources (Table 3) and CM 10-05, the Catch Documentation Scheme for *Dissostichus* spp., and as such CM 10-09 applies to **transshipment at-sea** only (Table 4). Transshipment in CCAMLR refers to both the 'transfer of harvested marine living resources and any other goods or materials to or from a fishing vessel'. Although bunkering is not included in footnote one, there is reference to 'fuel' in paragraph 3 and as such it is understood that 'goods' should be read in its broadest context, possibly including crew/ personnel. The measure does not apply to all CCAMLR fisheries, areas or species, but it does apply to all new and exploratory fisheries, to specified fisheries in certain areas (e.g. toothfish in area 48.3, crab in area 48.3, mackerel ice fish in area 48.3, and krill in areas 48.1-48.4) and in all seasons (for a full list of all species/areas covered by the transshipment measure refer to Table 2 and Annex A of CM10-09).

The general rule for at-sea transshipments is that authorised transshipments are all required to be notified to the Secretariat prior to it occurring (paragraph 7). Transshipments of living marine resources, bait and fuel require notification 72 hours prior to the intended activity to the Secretariat (paragraph 2). A two-hour timeframe is required for vessels that are **not** transshipping harvested marine living resources, bait or fuel and who are covered by CM 10-02 *Licensing and inspection obligations of Contracting Parties with regard to their flag vessels operating in the Convention Area* (paragraph 3). In most instances, the Contracting Party on behalf of its flag vessels will make the notification, however there are provisions for flag States to authorise their flag vessels to report directly to the Secretariat (paragraphs 2 and 3). All notifications received by the Secretariat are maintained on a non-public domain list and irrespective of the timeframe, all prior notifications require that the following is reported:

- the name and registration number of all vessels involved in the transshipment
- the international radio call sign
- the flag State
- the vessel type, length, gross registered tonnage and carrying capacity
- the proposed time and position (latitude and longitude) of the transshipment, and
- the type and amount of catches and/or other goods (food, stores, fuel, etc.) involved in the transshipment.

There is no reference in CM 10-09 on transshipment for the formation of a list of authorised **carrier vessels** (Table 7). In addition, neither the Convention nor CM 10-02 on the licensing of fishing vessels include a definition of 'fishing vessels'. However, CM 10-03 on port inspections does include a definition: "*fishing vessel* means any vessel of any size used for, equipped to be used for or intended for use for the purposes of fishing or fishing related activities, including support ships, fish-processing vessels, vessels engaged in transshipment and carrier vessels equipped for the transportation of fishery products except container vessels and excluding Members' marine science research vessels". Despite this, there is no explicit requirement to authorise carrier vessels in the CCAMLR Convention Area and carrier vessels can be flagged to non-members. Australia and the USA have historically proposed an amendment to CM 10-09¹¹ to require: 1. the establishment of a list of authorised carrier vessels, 2. a prohibition of transshipment to unauthorised vessels, carrier or fishing, inside the Convention Area, and 3. a requirement that fishing vessels only transship to these authorised carrier vessels or vessels authorised under CM 10-02 inside the Convention Area. Unfortunately, the proposal was not adopted by CCAMLR XXXV. In relation to CM 10-02, Contracting Parties are required to issue a specific licence to each of its fishing vessels stipulating the specific area, species and time period that the vessels are permitted to fish for (paragraph

¹¹ Paper CCAMLR XXXV/24 presented by Australia and the USA <https://www.ccamlr.org/en/ccamlr-xxxv/24>

1). Along with a mandatory IMO number and the ability to assert flag State control (paragraph 2), Contracting Parties are also required to submit mandatory information about the vessel to the Secretariat to enable identification and monitoring of the vessel (paragraph 3) and non-mandatory additional information (paragraph 4). Mandatory information includes:

- vessel name, registration number, IMO number, external markings, port of registration, international radio call sign, and previous flag
- nature of the authorisations to fish, including the authorisation period, areas, subareas or divisions of fishing, the species targeted, and the gear being used (including a description)
- vessel communication types and numbers, details of the tamper proof automatic location communicators (ALC) unit onboard
- the name(s) and address of the owners, and
- the type of vessel, its length, where and when built, high resolution colour photographs of the starboard, port and stern of the vessel.

In relation to the **MCS requirements** associated with monitoring compliance with the CCAMLR transshipment regulations, there are the requirements for **VMS**, for **port inspections** and the **CDS**. The CCAMLR **VMS** (CM 10-04), like other RFMO VMS measures, requires the installation of an ALC unit on all fishing vessels that is capable of continuous, automatic and independent transmission of the vessels position via satellite to the flag States fisheries monitoring centre (paragraph 1(i) of CM10-04). There is no requirement for simultaneous or automatic transmission of the VMS reports directly to the CCAMLR Secretariat. However, flag States are required to forward all reports received as soon as possible (paragraph 11 of CM 10-04). CCAMLR requires that reports are transmitted every four hours, hourly for finfish fishing vessels, and contain the information including the unique identifier, the geographic position, the vessels course and speed, plus the date and time (paragraph 1(v) of CM 10-04). Although all fishing vessels are required to have VMS, there may be a gap in relation to the monitoring of carrier vessels as it appears that there is no specific requirement for carrier vessels to carry an active VMS. The Author notes that, although not a requirement in CM 10-09, non-Contracting Party carrier vessels are providing transshipment notifications to the Secretariat and that transshipment is confined to krill vessels (CCAMLR Secretariat pers. comm). This said, it would be beneficial for CCAMLR to consider specific regulations to this for non-Contracting Parties to rectify any possible disparity between the VMS and transshipment notifications and therefore continue to eliminate any possible IUU fishing from entering the supply chain. Table 6 provides a summary of the VMS requirements against its application to vessels permitted to transship at-sea.

Regulations for **port inspections** are outlined in CM 10-03¹². The CM pertains to all ports of Contracting Parties and requires that all fishing vessels carrying toothfish be inspected (paragraph 1 of CM 10-03), and inspection of at least 50% of fishing vessels entering their ports and carrying species other than toothfish caught inside the Convention Area (paragraph 2 of CM 10-03). Consistent with the FAO Port State Measures Agreement, Contracting Parties can designate which ports are available for entry. Fishing vessels are required to provide 48 hours prior notification of their entry into ports including a declaration that they have not supported nor engaged in IUU fishing (paragraph 4). Annex A of CM 10-03 specifies a range of information to be provided by the fishing vessel to the port State prior to entry into the port (Table 8). The port inspection is required to take place within 48 hours of the vessels entry into the port and along with verifying the information provided in the prior notification form (paragraph 5), the inspector is also required to verify compliance with relevant conservation measures and catches landed or transshipped, plus those retained onboard (Annex B). There are three critical loopholes in the port inspection measure in relation to transshipment. 1. it only requires 100% inspection of toothfish vessels but all other Antarctic marine living resources, the requirement is to inspect '50% of the fishing vessels' rather than 50% of the port entries or similar to ensure that there is rigorous coverage of the landings of other

¹² There is also the System of Inspection which is used to verify compliance with CCAMLR measures but this only applies to inspections in-port.

marine living resources. 2. there is no requirement to notify the CCAMLR Secretariat of either the landing location or to report validated landing data. 3. the measure is silent on how to determine whether the fish was caught inside, or in the waters surrounding, the Convention Area. For example, there is no cross referencing of the time, date and location of transshipments inside the Convention Area on the port inspection form, except for the DCD numbers which are relevant to toothfish only, highlighting a significant gap in the monitoring of the krill fishery.

Another important MCS measure in CCAMLR is the toothfish **CDS** (CM 10-05). The conservation measure is designed to track all toothfish throughout the international trade cycle, including all catch, transshipment, landing, export and re-exporting between participating States. The CDS tracks until the first point of import; beyond this point the domestic arrangements for monitoring fish movement come into effect. The CCAMLR CDS is verified using the weight of species landed in a specific catching location that relates to the management areas. Given that the CDS only applies to toothfish there are clearly loopholes related to transshipments of krill (and although not currently being transshipped loopholes for ice fish and crabs) from the areas where transshipment is permissible.

Through the Scheme of International Scientific Observation (SISO), CCAMLR implements its scientific **observer program**. While observers in the SISO do not have a compliance function, like the WCPFC ROP, the data collected by observers can be used in compliance evaluation purposes. Consequently, there is no observer program or specific tasks for scientific observers in monitoring transshipments in the Convention Area. In summary, the SISO requires 100% observer coverage for all toothfish fishing vessels (through the fishery specific CMs, e.g., CM 41-01 and 41-08), while in the krill fishery there is a commitment to increasing levels of coverage: 50% coverage in the 2016-17 fishing season, 75% in the 2017-18 fishing season and 100% coverage implemented from the 2019-20 fishing season (CM 51-06). It is important to note that the observer coverage levels relate to fisheries that are described in CMs and all CMs relating to toothfish fisheries require 100% observer coverage. Although there are no specific requirements for observer coverage of transshipments nor coverage on carrier vessels, there is a requirement for observers to collect information about 'other conservation measures', and so in theory the observer could collect information about any non-compliance with the transshipment CM. Table 5 provides a summary of the key elements of the observer programs.

Regarding the **reporting obligations**, along with the prior notifications required for transshipments in the Convention Area for fisheries not covered by the measure (i.e. not new and exploratory fisheries, and for fisheries listed in Annex 1 of CMM 10-09), Contracting Parties are required to provide an annual report of transshipments by its flag vessels in the previous year (assumed to be previous 'fishing season' of 1 December-30 November) (paragraph 6). The report is required to provide all details as outlined in paragraph 4 and is uploaded to a secure part of the CCAMLR website available to all CCAMLR members. Unlike the tuna RFMOs, there is no requirement for the Secretariat to prepare a summary report of the compliance and implementation of the transshipment measure. However, CCAMLR has implemented a Compliance Evaluation Procedure (CEP) which evaluates each party's compliance with conservation measures (CM 10-10). There is no publicly available report available for transshipment in the CCAMLR Convention Area.

Comparison of RFMO Transshipment Measures

The following section provides both a summary of, and a comparison between, the RFMO transshipment measures themselves, plus the MCS measures that are fundamental to the effective functioning of the transshipment measure. For details of a specific RFMO approach please refer to the relevant section above and directly to the text of the measure adopted by the RFMO itself.

Application of the Measures

- Key to the management of transshipment is thorough comprehension of the application of the transshipment regulations, that is, which combinations of species, vessels, areas, etc., that they apply to. A comparison of the application of the RFMO transshipment regulations and the rules governing how the flag States can authorise exemptions for their flag vessels, which can be permitted for specific types of transshipment, specific vessels types or sizes, and/or specific species, is provided at Table 2.

In summary:

- the five tuna RFMOs have implemented a general rule prohibiting at-sea transshipment that applies to all vessels (CCSBT paragraph 2; IATTC paragraph 1; ICCAT paragraph 1; IOTC paragraph 1; WCPFC Convention Article 29(5) and paragraph 34).
 - In contrast, the CCAMLR measure allows transshipment as a general rule under very specific rules applied to specific fisheries in specific areas and using certain gear types.
 - In SEAFO Article 5 applies to all vessel, to all species covered by the treaty and throughout the Convention Area, recalling that SEAFO is restricted to the high seas only.
- However, the tuna RFMO measures also provide the ability for flag States to authorise that certain vessels be exempt from the general prohibition of at-sea transshipment provided they meet the requirements for at-sea transshipment set out in the relevant measure.
 - four tuna RFMOs, CCSBT, IATTC, ICCAT and IOTC, enable the flag State to authorise, with conditions, their large-scale longline vessels, to be exempted from the general prohibition of transshipping at-sea. Critically, there are different definitions of what a large-scale tuna longline vessel is deemed to be in each of these RFMOs, the flag States alone determine the authorisation to conduct at-sea transshipment with little input and/or oversight from the Commission, and that 'authorisation' can be issued up to 24 hours prior to the intended transshipment making it more like a notification of the vessels' action than an authorisation from the flag State.
 - WCPFC has a more complex arrangement: 1. at-sea transshipment in national waters subject to the domestic laws and procedures, which are subject to the compatibility rules of both the Convention and the UNFSA, 2. the flag State can authorise, with conditions, any vessel that it has deemed to be 'impractical' to be exempted from the general prohibition of transshipping at-sea, 3. for non-member carrier and bunker vessels listed in the interim list of carrier and bunker vessels, and 4. for small scale purse seine in PNG and the Philippines and vessels fishing and transshipping solely within their own flag waters (e.g. NZ). Overall, there is the potential for a large number of vessels to avoid the general prohibition of at-sea transshipment.

- Fundamental to the discussion of the application of the transshipment regulations is how the authorisation to conduct at-sea transshipment is applied, who grants it, and what oversight, if any, the Commission has in approving or removing the authorisation granted by a member or cooperating non-member.
 - In all tuna RFMOs, the flag State is responsible for granting the authorisation that exempts the vessel from conducting transshipment solely in-port. There is no input or oversight from the Commission in assessing the application from the vessel nor in approving the authorisation by the flag State. Moreover, there is no immediate mechanism for the Commission to override the flag States authorisation in the event of non-compliance by the vessels except via IUU listing; and further there is no Commission assessment input in considering the ability of the flag State to assert flag State control over their vessels in relation to the monitoring of at-sea transshipment. This includes the WCPFC regulations where for vessels, other than purse seine vessels, the flag State makes a determination of the ‘impracticability’ of the vessels ability to operate without being able to conduct at-sea transshipment on the high seas.
 - However, WCPFC does provide that the authorisation by flag States for an exemption from in-port transshipment for purse seine vessels, is subject to the approval of the Commission. In accordance with Article 29(5) of the WCPFC Convention, the Commission can grant an exemption to a member permitting at-sea transshipment by its flagged purse seine vessels. To date only one CCM has sought and been granted an exemption for at-sea transshipment by their purse seine vessels, for domestic vessels flagged to New Zealand who transship inside their EEZ (paragraph 25). However, paragraph 25 also provides a possible exemption for existing purse seine vessels with vessel hold capacities of 600 metric tonnes or less flagged to Papua New Guinea and the Philippines that meet three specified criteria; there has been no application from these flag States, however as noted earlier Philippine flagged group purse seine vessels are permitted to transship in High Seas Pocket 1 in accordance with 2016-01.

Table 2: Summary and comparison of the application of the transshipment regulations, by RFMO, gear, vessel (type and size), species, areas, for in-port and at-sea transshipment

RFMO	Application and Exemptions of Transshipment Measures					
		by fishery	by vessel/ gear type	by vessel size	by species	by spatial area
CCSBT	In-port	Applies to the SBT fishery only.	Applies to large-scale tuna longline vessel (LSTLV) only.	Permissible for LSTLV : a tuna longline vessel with freezing capacity.	Applies to SBT and SBT products only.	Applies to high seas and EEZs; for EEZs requires prior authorisation from the coastal State/ Fishing Entity.
	At-sea	Applies to the SBT fishery only.	Permissible for authorised LSTLVs and carrier vessels only for both in-port and at-sea transshipments.	Freezing capacity: capable of storing 500kg of SBT at or below -30°C. Carrier vessel : any vessel (excluding container vessels) that received SBT from a LSTLV.	Excludes all other species consistent with the treaty.	

Continued on next page

RFMO	Application and Exemptions of Transshipment Measures					
		by fishery	by vessel/ gear type	by vessel size	by species	by spatial area
IATTC	In-port	Applies to all tuna and tuna-like fisheries.	Applies to all large-scale tuna fishing vessels (LSTFV): a vessel fishing beyond waters under national jurisdiction (or CPC controlled areas) and targeting tuna and tuna-like species.	Applies to all sized vessels.	Applies to tuna and tuna-like species and shark caught in association with tuna fisheries.	Applies to the Convention Area – high seas and EEZs.
	At-sea	Applies to all tuna and tuna-like fisheries.	Exemption for troll, pole-and-line or fresh fish vessels. Applies to large-scale tuna longline fishing vessels (LSTLFV) and authorised carrier vessels.	Exemption for small scale vessels. Applies to LSTLFV : all vessel fishing beyond areas of national jurisdiction or beyond each CPC controlled area and targeting tuna and tuna-like species. Carrier vessels : those authorised by their flag State.	Excludes 'other species of fish taken by vessels fishing for tunas and tuna-like species in the Convention Area' although they are covered by the treaty.	Rules apply for LSTLFV throughout the Convention Area.
ICCAT	In-port	Applies to all tuna and tuna-like fisheries.	Applies to all vessels and gears, except harpoon vessel for swordfish.	Applies to all sized vessels.	Applies to tuna and tuna-like species and other species caught in association with these species.	Applies to Convention Area.
	At-sea	Applies to all tuna and tuna-like fisheries.	Exemption for harpoon vessel for swordfish. Permissible for large-scale pelagic longline vessels (LSPLV), authorised carrier vessels.	Rules apply to LSPLV : vessels greater than 24 metres length overall.	Excludes other highly migratory species consistent with the treaty.	Applies to Convention Area – Atlantic and adjacent seas. Exemption outside the Convention Area if there is a comparable measure in place.
IOTC	In-port	Applies to all tuna and tuna-like fisheries.	Applies to all vessels and gears.	Applies to all sized vessels.	Applies to tuna and tuna-like species and shark caught in association with tuna fisheries.	Applies to the Agreement Area – high seas and EEZs.
	At-sea	Applies to all tuna and tuna-like fisheries.	Permissible for large-scale tuna longline fishing vessels (LSTLV) and authorised carrier vessels.	Rules apply to LSTV : length is not defined. LSTLFV : length is not defined.	Excludes other highly migratory species consistent with the treaty.	Applies to the Agreement Area – high seas and EEZs.

				Carrier vessels: those authorised by the flag State.		
WCPFC	In-port	Applies to all HMS fisheries covered by the Convention.	Applies to all vessels.	Applies to all sized vessels.	Applies to highly migratory species (HMS) consistent with the Convention.	Applies in all ports and waters under national jurisdiction in accordance with domestic laws.
	At-sea	Applies to all HMS fisheries covered by the Convention.	Prohibited for all PS. Permissible for: 1. existing small-scale PS flagged to PNG and PHL under prescribed criteria. 2. NZ domestic PS for operations inside their national waters. 3. longline, troll, pole-and-line inside national waters. 4. non-CCM fishing, and carrier and bunker vessels on the WCPFC list.	Applies to all sized PS and LL vessels. Permissible under specific rules for PS 600mt or less from PNG and PHL, NZ domestic PS vessels, and for other vessels where CCM has determined that it is impracticable to prohibit at-sea transshipment.	Applies to highly migratory species (HMS) consistent with the Convention.	Permissible in archipelagic waters & territorial seas. Prohibited: 1. for all PS in the Convention Area (CA). 2. by PS vessels outside the CA. 3. on the high seas by other vessels where CCM has determined that it is impracticable to prohibit it at-sea. 4. In waters under national jurisdictions in certain circumstances.
SEAFO	In-port	Applies to all fisheries.	Applies to all vessels and gears.	Applies to all sized vessels.	Applies to all fisheries resources covered by the treaty.	Applies in the Convention Area, that is high seas only.
	At-sea	Not permissible.	Not permissible.	Not permissible.		
CCAMLR	At-sea	Applies to new & exploratory fisheries.	Applies to all vessels and gears.	Applies to all sized vessels.	Applies to all resources in new and exploratory fisheries.	Applies throughout the CA.
		Patagonian toothfish	Applies to longline, pot and trawl only. Exemption for all other gears and vessels.	Not applicable.	Applies to Patagonian toothfish only.	Subareas 48.3 (division 58.5.2) only.
		Toothfish	Applies to longline Exemption for all other gears and vessels.	Not applicable.	Applies to toothfish only.	Subarea 48.4 only
		Mackerel icefish	Applies to trawl. Exemption for all other gears and vessels.	Not applicable.	Applies to mackerel icefish only.	Subarea 48.3 (division 58.5.2) only
		Crab	Applies to pot fishing only. Exemption for all other gears and vessels.	Not applicable.	Applies to crab only.	Subarea 48.3 only.

		Krill	Applies to trawl, continuous fishing system, pumping to clear the codend. Exemption for all other gears and vessels.	Not applicable.	Applies to krill only.	Subareas 48.1, 48.2, 48.3, 48.4 (divisions 58.4.1, 58.4.2) only.
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Regulations for In-Port Transshipment

A summary of the in-port transshipment regulations is provided in Table 3. In relation to in-port regulations, some general comments first before considering the specifics. First, all RFMOs, except for WCPFC, SEAFO and CCAMLR, have established standards for in-port transshipment. WCPFC alone requires that all in-port transshipment be subject to the port States domestic regulations, but there are no standards established by the RFMO. This is atypical in WCPFC, which generally sets regional standards through the measures it adopts, but it also links to the requirement for compatible measures between high seas and coastal jurisdictions. For SEAFO and CCAMLR, there are no in-port transshipment regulations, rather these organisations rely on the port inspection measures. For SEAFO with its prohibition of at-sea transshipment, this makes sense. However, in CCAMLR, given it permits at-sea transshipment, it raises some issues, for example for vessels other than those carrying toothfish caught inside or outside the CCAMLR Convention Area which are required to have a *Dissostichus* spp Catch Document (DCD). Without a catch documentation scheme, these other vessels can unload in any port, including ports of non-members, with no requirement to provide the port inspection report to the Secretariat nor to inform the Secretariat of the next intended port of call. This highlights the need for clear, unambiguous relationships between in-port transshipment and port inspection procedures as being fundamental to the monitoring of lawful catches generally and specifically those from transshipments. In CCSBT, for example, there is a disconnect between the designation of ports where foreign fishing vessels may request entry created through the recently adopted port inspection procedures. Paragraph 21 of the transshipment measure requires that members designate a list of foreign ports that their fishing vessels may enter and/or transship SBT; conversely paragraph 9 and 10 of the port inspection procedures requires that members designate which of their own ports that foreign fishing and/or carrier vessels may request entry. It may be possible for a member to designate a foreign port under the transshipment measure that has not been designated by that foreign country under the port State measures resolution. This example seeks to highlight the importance of cross referencing measures to ensure that the objective of the RFMO is being effectively achieved.

Second, except for WCPFC, there is no clarification of what 'in-port' actually means. For example, some key 'ports' are actually near, but offshore, facilities rather than truly being alongside a wharf as one might imagine. Third, the measures require clarification on various issues, for example who is the competent authority of the landing State? None of the measures has defined this. Fourth, the reporting timeframe for the transshipment declaration seems disparate from the rest of the reporting and notification requirements. Despite the requirement from the fishing vessels to complete reports containing the product, quantities and details of the carrier at the time of transshipment to its flag State, the official transshipment declarations are not required to be submitted until up to 15 days after the transshipment event.

For CCSBT, IATTC, ICCAT and IOTC, the in-port transshipment regulations are almost identical (Table 3). This carbon copy approach means that issues are similar among these RFMOs:

- there may be a disconnect between the information requirements of the transshipment declaration versus reports prior to, or at the time of, the transshipment: the declaration requires that the species be reported, not the product. Overall, this could create discrepancies between the data sources and possibly reduce the ability to differentiate legal

catch from IUU or laundered catches unless there is rigorous and known conversion metrics used to enable this conversion to be calculated by species.

- the reported location of the catch differs between the fishing vessel to the port State versus to its flag State, nomination of the ‘major fishing grounds of the catch’ versus the ‘geographic location of the catch’ respectively. In addition, the term ‘geographic location’ is used by these RFMOs, but only ICCAT has defined this term. Indian or Atlantic Ocean could be argued as being a geographic location, but this information is largely meaningless in a fisheries management and MCS context. There are also differences between the information required on the transshipment declaration, which does not require any notification of fishing location. It seems that it may be helpful to explore the possibility of providing details of the dates that the catch was caught by the fishing vessel (in addition to the location) and that is now being included in a specific transshipment event as it would provide a direct link and cross check to the daily catch and effort logbook and to the data from VMS/ AIS and other electronic tracking mechanisms.
- regarding the transshipment declaration sent to the landing State. These measures refer to the carrier vessel ‘completing and submitting [the transshipment declaration] to the landing State’. It would seem prudent to state that this be a carbon (or true) copy of the transshipment declaration completed at the time of the event. In any event, it is important to clarify that the transshipment declaration to be sent by the carrier vessel to the landing State is indeed a true copy of the declaration sent to the its flag State authority or a new declaration. If it is a new declaration because the consignment is being delivered to different locations for example, the measure provides no clarity on how the new declaration is linked to the original transshipment with the fishing vessels, which may be a loophole enabling the laundering of IUU catches. This issue may be resolved through the use of electronic reporting and integrated MCS databased for example electronic port state monitoring being trialled in the IOTC.

One aspect of the in-port transshipment regulations that is not detailed in any of the RFMO measures is the management and monitoring of carrier vessels that are, or intend to, offload in multiple ports. First, recall that there is a requirement for the carrier vessel is to provide 48 hours prior notification to the landing State, the measures are silent on the preparation or provision of offloading reports in any subsequent ports, which is likely to relate directly to the port inspections measures, to allow for the continued tracking of the transshipped product until the first point of sale for each offloading for example. Second, if there is no requirement to notify the Secretariat of the landing ports nor of the amounts offloaded then it is very difficult to track the legal or identify illegal movement of fish, this includes of other tuna species under the auspice of another RFMO. Again, this is directly linked with the port inspection procedures. If the port inspection procedures are deficient then the risk of unregulated fish entering the supply chain is greater. For example, in CCAMLR there are no defined in-port transshipment regulations, but there are port inspection procedures that require 50% of vessels (other than those carrying toothfish), entering their ports to be inspected. There is no requirement to prior report to the Secretariat the landing port, the intended next port or report the quantities unloaded/ transshipment/ unloads in-port. This means that despite the prior reporting of the transshipment at-sea, there is no way for the Secretariat to monitor the in-port landings creating an MCS loophole in the management and monitoring of the catches and transshipments of CCAMLR species.

Table 3: Summary and comparison of the regulations, by RFMO, for in-port transshipment.

RFMO	Notified by	To	When	What
CCSBT	LSTLV	Port State authorities	At least 48 hrs prior or immediately at the end of fishing when the time to port is less than 48 hrs.	The name and CCSBT number of both the LSTLV and the carrier vessel; the product and tonnage of product being transshipped; the date and location of the transshipment; and the major fishing grounds of the SBT catch.

		Flag State / Fishing Entity	At the time of transshipment.	The products and quantities transshipped; the date and location of transshipment; name, registration and CCSBT numbers of the carrier vessel; geographical location of the SBT catch.
		Flag State / Fishing Entity	Not later than 15 days following transshipment.	The CCSBT Transshipment Declaration and its CCSBT number.
	Carrier vessel	Port State authorities	Not later than 24 hrs before the commencement of transshipment.	Quantities of SBT to be transshipped to the carrier vessel.
		Port State authorities, flag State / CNM of the LSTLV, Secretariat	Within 24 hrs of transshipment of the completed transshipment.	The CCSBT Transshipment Declaration
		Landing State competent authorities	At least 48 hrs before landing.	The CCSBT Transshipment Declaration
IATTC and IOTC	Fishing vessel	Port State authority	At least 48 hrs prior to the intended transshipment.	The name of the fishing vessel and its RFMO number; the carrier vessel name; product to be transshipped; the tonnage, by product, to be transshipped; the date and location of the transshipment; the major fishing grounds of the catch.
		Flag State	At the time of the transshipment.	The product and quantities being transshipped; date and location of the transshipment; name, registration number and flag of the carrier vessel; the geographic location of the catches.
			Not more than 15 days after the transshipment.	The relevant RFMO transshipment declaration; the relevant RFMO number for the LSTFV/LSTV.
	Carrier vessel	Port State authority	Not later than 24 hrs before and at the end of the transshipment.	The quantities of the catches of tuna and tuna-like species and sharks received.
		The competent authority	Within 24 hrs of the transshipment	The relevant RFMO transshipment declaration
		Landing State authorities	48 hrs prior to landing	The relevant RFMO transshipment declaration
	ICCAT	Fishing vessel	Port State authority	At least 48 hrs before the intended transshipment.
Flag State			At the time of the transshipment.	The quantities of tuna and tuna-like species, if possible by stock, being transshipped; quantities of other species, where known by species, being transshipped; date and place of the transshipment; name, registration number and flag of the carrier vessel; and the geographic

				location of the catches, by species, and where appropriate by stock and ICCAT statistical areas.
		Flag State	Not more than 15 days after the transshipment.	The ICCAT Transshipment Declaration, and its ICCAT number, where applicable
	Carrier vessel	Port State authority	Not later than 24 hrs before, and, at the end of transshipment	The quantities of the catches of tuna and tuna-like species transshipped.
		The competent authorities	Within 24 hours	The ICCAT transshipment declaration
		The landing State authorities	At least 48 hours prior to landing	The ICCAT transshipment declaration
WCPFC	No requirements outlined. In-port transshipment is governed by the relevant domestic laws of the coastal State.			
SEAFO	Flag State of the fishing vessel	Flag State of the carrier vessel	At the time of the transshipment	The fishery resources and quantities, date of transshipment and location of the catch.
	Fishing vessel	Flag State	Unspecified.	The SEAFO Transshipment Declaration (Annex IV of the System).
		Port State authorities	At least 24 hrs prior to the intended transshipment	The date & time of the intended transshipment, the names of the fishing & carrier vessel, tonnage of fishery resources, by species, being transshipped.
		Competent authorities	Within 24 hrs.	The SEAFO Transshipment Declaration.
	Competent authorities in the landing State	48 hrs before landing.	The SEAFO Transshipment Declaration (Annex IV), the Prior Notification to the landing State authorities (Annex VI).	
CCAMLR	Fishing vessel	Port State authorities	At least 48 hours prior to entry	The CCAMLR Port Inspection Report (Annex A of CM 10-03 Port Inspection)
	NB CCAMLR does not have procedures regulating transshipment in-port as such. Further information is provided in Table 8 describing the information requirements for RFMO Transshipment Declarations.			

Regulations for At-Sea Transshipment

Only SEAFO has implemented a prohibition on at-sea transshipment in its Convention Area, the rest all provide for exemptions, albeit regulated, permitting at-sea transshipment (Table 4). However, in SEAFO, the language of the measure states that members 'shall ensure that their vessels are not involved in transshipment'. This language falls short of actually implementing a prohibition on at-sea transshipment in the Convention Area, rather requiring members to take measures. Unfortunately, with no mention of the use of other MCS measures in association with the management and monitoring of the at-sea transshipment it is not clear how this would be enforced. In WCPFC at-sea transshipment is permitted inside EEZs and by a greater range of vessels than other RFMOs; the rules define that transshipment for some smaller purse seiners flagged to PNG and the Philippines under prescribed conditions is allowed, along with purse seiners fishing and offloading solely within their own flag EEZ. In addition, at-sea transshipment by any vessel is permissible on the high seas where a flag State has deemed it 'impracticable' not to allow such activity, however no

criteria define the idea of 'impracticability'. As such the use of at-sea transshipment in WCPFC could be very high. Fortunately, there are complementary MCS measures in WCPFC, including reporting a range of information directly to the Secretariat.

For CCAMLR, at-sea transshipment is not managed using gears, but rather is defined by the areas and species. According to the CCAMLR Secretariat, there is limited transshipment of toothfish, rather vessels tend to 'land' their catch before exporting the product. Conversely, there is a greater reliance of transshipment in krill fisheries. The other four RFMOs, CCSBT, IATTC, ICCAT and IOTC, enable authorised at-sea transshipment by 'large scale longline fishing vessels' throughout the Convention Area, being high seas and EEZs. There is no single definition of what a 'large scale longline fishing vessel' is, which must be particularly confusing for longline vessels authorised in CCSBT and who rely on the rules of other RFMOs to some extent for this transshipment function. It is also curious that large-scale longline fishing vessels are afforded the option of at-sea transshipment when the preambular language of most of the RFMO's measures highlights the risk of laundering IUU catches from these vessels.

The rest of the regulations are relatively uniform, consisting of prior authorisation/ notification of the intended transshipment by the fishing vessel, reporting by the carrier and fishing vessels following the transshipment and then transmission of the completed transshipment declaration to the relevant authorities, including the landing State prior to landing. Key aspects and issues associated with the at-sea transshipment procedures include:

- Prior authorisation for at-sea transshipment – CCAMLR requires 72 hours prior notification for transshipments involving any living marine resources, bait and/or fuel (2 hours for all other transshipments) and WCPFC requires 36 hours prior notification of the intended transshipment. For all tuna RFMOs the authorisation is determined and administered solely by the flag State and can be granted up to 24 hours prior to the intended transshipment. There are two critical issues with this process: 1. there is no criteria on which the flag State is to base the assessment enabling the at-sea transshipment authorisation, and, 2. there is no oversight by the Commission on the flag States assessment, or granting, of the at-sea transshipment authorisation to any of its vessels, this includes no consideration by the Commission of historical infractions by the LSTLVs under the transshipment measure or of the flag State of its ability to assert flag State control. To improve transparency, it would be wise to have all prior authorisations provided to the Secretariat for independent monitoring with, and against, other MCS and reporting obligations and reporting back to the flag States of the vessels involved.
- Similar to the in-port transshipment regulations, it would be advantageous to clearly articulate that the transshipment declaration provided to the landing State is a true copy of the same declaration sent to all other authorities in reporting obligations set out in the measure.
- It is also unclear why the completed transshipment declaration is only reported to the flag State and coastal State (where applicable) 15 days after the transshipment event. To improve MCS, it would seem prudent to implement near real-time reporting to the greatest extent possible.

Table 4: Summary and comparison of the regulations, by RFMO, for authorised at-sea transshipments.

RFMO	Notified by	To	When	What
CCSBT	LSTLV	Flag State / Fishing Entity	At least 24 hrs prior to intended transshipment.	The name & CCSBT number of both the LSTLV & the carrier vessel, the product & tonnage of product being transshipped; the date & location of the transshipment; & the geographic location of the SBT catch.

		Flag State / Fishing Entity, coastal State as applicable	No later than 15 days after transshipment.	The CCSBT Transshipment Declaration.
	Carrier vessel	Flag State of the LSTLV & Secretariat	Within 24 hrs of the completion of transshipment.	The CCSBT Transshipment Declaration & its CCSBT number.
		Landing State competent authorities	No later than 48 hrs before landing.	The CCSBT Transshipment Declaration & its CCSBT number.
	Secretariat	Flag State / CNM of the LSTLV	Quarterly.	Received CCSBT Transshipment Declarations.
IATTC	LSTLFV	Flag State authorities	At least 24 hrs in advance of transshipment.	Name & number of the LSTLFV and carrier vessel; product being transshipped; tonnage by product being transshipped; date & location of transshipment; geographical location of transshipment of tuna; tuna-like & shark catches.
			Not later than 15 days after transshipment	IATTC Transshipment Declaration (Annex 2); its number of the IATTC LSTLFV list.
	Carrier vessel	IATTC Director & flag State of the LSPLFV	Within 24 hrs of the completion of transshipment.	IATTC Transshipment Declaration (Annex 2); its number of the IATTC carrier vessel list.
		Landing State competent authorities	48 hrs before landing	IATTC Transshipment Declaration (Annex 2); its number of the IATTC carrier vessel list.
ICCAT	LSPLV	Flag State authorities & coastal State authorities (if applicable)	At least 24 hrs in advance of transshipment	Name & ICCAT number of LSPLV and carrier vessels; product being transshipped by species and stock where known; quantities of tuna & tuna-like species by stock being transshipped; quantities of other species being transshipped; date & location of transshipment; geographical location of catches by species & stock.
			Not later than 15 days after transshipment.	ICCAT Transshipment Declaration (Appendix 1); its ICCAT fishing vessel number.
	Carrier vessel	ICCAT Secretariat; flag State of the LSPLV	Within 24 hrs of the completion of transshipment	ICCAT Transshipment Declaration (Appendix 1); its ICCAT carrier vessel number.
		Landing State competent authorities	48 hrs before landing	ICCAT Transshipment Declaration (Appendix 1); its ICCAT carrier vessel number.
IOTC	LSTLV	Flag State authorities	At least 24 hrs in advance of intended transshipment.	Name, IMO & IOTC number of LSTLV & carrier vessel; product to be transshipped; tonnage by product being transshipped; date & location of transshipment; geographic location of the catch.
			Not later than 15 days after transshipment.	IOTC Transshipment Declaration (Annex II); its IOTC fishing vessel number.

	Carrier vessel	Unspecified	Unspecified.	Confirmation of the LSTLVs participation in the IOTC ROP including payment of fees and prior authorisation from its flag State.
		IOTC Secretariat, LSTLV flag State,	Within 24 hrs of transshipment	IOTC Transshipment Declaration (Annex II); its IOTC carrier vessel number.
		Landing State competency authorities	48 hrs before landing	IOTC Transshipment Declaration (Annex II); its IOTC carrier vessel number.
WCPFC	Flag States of both the fishing & carrier vessels	Commission	No timeframe specified.	The procedures for monitoring and verifying transshipments on the high seas, provide a list of vessel which are permitted to transshipped on the high seas, how it is encouraging in-port transshipment.
		Executive Director	At least 36 hrs prior to each transshipment.	Information as per Annex III (the Transshipment Declaration): unique document number; fishing and carrier vessels name & WIN; quantity of product by species & product state being transshipped; state of the fish; quantity of by-product being transshipped; geographic location of fishing; date & time of transshipment; observers name & signature as applicable; quantity of product already onboard & the geographic location of its catch.
	Within 15 days of the completion of the transshipment.			
SEAFO	N/A. At-sea transshipment is prohibited in the SEAFO Convention Area.			
CCAMLR	Flag State authorities of all vessels	Secretariat	At least 72 hours prior to the intended transshipment, or for transshipment of anything other than harvest marine living resources, fuel or bait, at least 2 hours prior.	The name & registration number of all vessel involved in the transshipment; the international radio call sign; the flag State; the vessel type, length, gross registered tonnage & carrying capacity; the proposed time & position (latitude & longitude) of the transshipment; & the type & amount of catches &/or other goods (food, stores, fuel, etc.) involved in the transshipment.

Monitoring, Control and Surveillance for Transshipment

Tables 5 – 8 provide comparisons of the requirements by RFMO of the key MCS measures that support the implementation, verification and compliance of fishing and carrier vessels with the requirements for the transshipment measures. The tables provide a summary of the text only, as such for the exact wording of RFMO requirements please refer directly to the relevant RFMO measure (for a summary of the RFMO measures please refer to the ISSF RFMO CMM Database: <https://iss-foundation.org/knowledge-tools/databases/rfmo-management-database/>).

OBSERVER COVERAGE FOR AT-SEA TRANSSHIPMENT

Table 5 summarises the requirements for observers involved in monitoring at-sea transshipments, including training, designation and tasks. Neither SEAFO or CCAMLR have requirements for observers in their management of

transshipment, SEAFO as there is no at-sea transshipment and in the case of CCAMLR, the observer program is solely for scientific purposes. As such there are notable absences in the observer tasks as these pertain directly to transshipment monitoring. For the tuna RFMOs, the observer program is established to monitor at-sea transshipment and the vessels compliance with the measures. Like the in-port transshipment measures, the regional observer programs for at-sea transshipment are established under CCSBT, IATTC, ICCAT and IOTC are basically carbon copies of each other, with some additional information and tasking in ICCAT. For the WCPFC observer program it is part of the Commission's observer program, rather than being established as a separate program. The Commission Observer program utilises, and is built on, the national, sub-regional and regional programs. As such, how it relates to transshipment is at times slightly different from the other tuna RFMOs. In essence though, all of the programs are largely the same with the following key differences:

- WCPFC doesn't specify that the observer know the language onboard the vessel and alone specifies that the observer must accept and comply with the confidentiality requirements of the Commission.
- CCSBT, IATTC and IOTC do not explicitly require the observer to inspect the authorisations permitting at-sea transshipment, or to estimate the quantities of non-target/other species onboard the vessel, however it may be that this occurs in practice or are made available at the request of the observer.
- ICCAT alone requires that the observer estimates the quantity of product offloaded in port.
- The cost of the observer program is borne by those members of the relevant RFMOs which transship at-sea, except in WCPFC which as noted above utilises the existing national observer programs which are already fully-funded using various means including cost-recovery from industry.

For all observer programs, there could be greater clarification on where and when the observer reports are sent. For example, there is not specification on where and when the daily reports are sent, but there is a clear requirement for the observer to complete these daily reports. There are also significant delays in the observer data being received by the flag State and/or Secretariat. With electronic monitoring, this should improve, but the importance of the need for near real-time reporting in effective monitoring of verification of at-sea transshipment cannot be overstated.

Table 5: Summary and comparison of the requirements of the observer programs monitoring transshipments particularly at-sea transshipment.

Requirements		CCSBT	IATTC	ICCAT	IOTC	WCPFC	SEAFO	CCAMLR
Observer Designation	sufficient (ICCAT 'demonstrated') experience to identify species and fishing gear (ICCAT observer experience) (WCPFC independent & impartial)	✓	✓	✓	✓	✓	not defined	not defined
	satisfactory knowledge of the RFMO's measures	✓	✓	✓	✓	✓	not defined	not defined
	ability to observe & record information accurately	✓	✓	✓	✓	✓	not defined	not defined
	satisfactory knowledge of the language of the flag vessel being observed	✓	✓	✓	✓	✗	not defined	not defined
Observer	completed technical training relevant to the RFMO (CCSBT includes reference to ICCAT and IOTC)	✓	✓	✓	✓	✓	not defined	not defined

	to the extent possible, not be nationals of the flag State/Fishing Entity of the carrier vessel (WCPFC occurs in practice) (SEAFO are from the flag State)	✓	✓	✓	✓	✓	✗	not defined
	capable of performing prescribed duties (WCPFC implied only)	✓	✓	✓	✓	✓	not defined	not defined
	included on the RFMOs list of observers maintained by the RFMO Secretariat	✓	✓	✓	✓	✓	not defined	not defined
	not be crew of the fishing vessel or an employee of the fishing company (ICCAT or of the carrier vessel / company)	✓	✓	✓	✓	✓	not defined	not defined
	acceptance and compliance with confidentiality requirements	✗	✗	✗	✗	✓	not defined	not defined
Observer Tasks	check validity of fishing vessels fishing authorisations / licence	✓	✓	✓	✓	✓	n/a	✓
	inspect the prior authorisations to transship from the flag State and coastal state where relevant	✗	✗	✓	✗	✓	n/a	n/a
	check and note / record the total quantity of catch onboard the fishing vessel	✓	✓	✓	✓	✓	n/a	n/a
	check the quantities to be transhipped from the fishing vessel	✓	✓	✓	✓	✓	n/a	n/a
	check functionality of fishing vessel VMS & examine the fishing vessel logbook (ICCAT verify the entries if possible)	✓	✓	✓	✓	✓	n/a	✓
	verify & check the documentation of any previous transshipments from other fishing vessels	✓	✓	✓	✓	✓	n/a	n/a
	report any detected violations involving the fishing vessel to master of carrier vessel immediately	✓	✓	✓	✓	✓	n/a	n/a
	prepare & submit report of the duties related to the fishing vessel	✓	✓	✓	✓	✓	✓	✓
	monitor carrier vessel compliance with the RFMOs measures (ICCAT observer the activities of the carrier vessel)	✓	✓	✓	✓	✓	n/a	n/a
	record & report transshipments by the carrier vessel	✓	✓	✓	✓	✓	n/a	n/a
	verify the position of the carrier vessel when engaged in transshipping	✓	✓	✓	✓	✓	n/a	n/a

	verify & record the name & RFMO / registration # of the fishing vessel	✓	✓	✓	✓	✓	n/a	n/a
	estimate product quantities being transhipped to the carrier vessel by species, if known, and stock, if possible (except CCBST only pertains to SBT)	✓	✓	✓	✓	✓	n/a	n/a
	estimate quantities of other species, by species if known, caught in association with the target species	✗	✗	✓	✗	✓	n/a	n/a
	verify, certify & countersign accuracy of transshipment declaration	✓	✓	✓	✓	✓	n/a	n/a
	estimate quantities of product, by species, offloaded in the port where the observer disembarks to verify the consistency of reports	✗	✗	✓	✗	✗	n/a	n/a
	issue daily reports of the carrier vessel activities & establish general reports of information collected & send to Secretariat within prescribed timeframe	✓	✓	✓	✓	✓	n/a	n/a
	carry out any other duties as prescribed by the RFMO	✓	✓	✓	✓	✓	n/a	✓
Carrier Flag State Obligations	ensure that masters of their flag vessels: 1. allow access to vessel personnel, gear & equipment including satellite navigation, radar (CCSBT only when in use), & communication systems (ICCAT + scales to weigh transhipped product);	✓	✓	✓	✓	✓	not defined	not defined
	2. provide food and lodging at officer level; adequate working space (office & deck);	✓	✓	✓	✓	✓	not defined	not defined
	3. not obstruct, intimidate, interfere, influence, bribe or attempt to bribe an observer (ICCAT + observer to determine the most advantageous position & method for viewing transshipment)	✓	✓	✓	✓	✓	not defined	not defined
Fees	Costs of observer program borne by participating flag States based on the total cost of the program (WCPFC programs funded through the national/sub-regional programs)	✓	✓	✓	✓	✗	not defined	not defined

VESSEL MONITORING SYSTEMS

Table 6 summaries the VMS requirements of each of the RFMOs. Apart from SEAFO, only ICCAT, CCAMLR and WCPFC clearly require VMS on all vessels possibly involved in transshipment. For IOTC the VMS measure itself has recently been improved, but the transshipment measure fails to provide a definition of what a large-scale longline vessel is, again it would be advantageous to clarify that the VMS requirements are required on all vessels authorised to conduct at-sea transshipments. For CCSBT and IATTC there is a disconnect between the requirements of the VMS and transshipment measures. It is important that RFMO measures are rigorously cross-referenced to ensure complete coverage of VMS of activities that are considered to have a high IUU fishing risk.

Table 6: Summary and comparison of each of the RFMO VMS requirements and their application to the fishing and carrier vessels involved in transshipment.

RFMO	VMS Requirements	Applicable to all vessels permitted to transship at-sea
CCSBT	<p>Fishing vessels: 2017 <i>Resolution on the CCSBT Vessel Monitoring System</i>, VMS be installed on all fishing vessels harvesting SBT consistent with the rules of the RFMO governing that area (e.g. IOTC in the IOTC Area of Competence), flag States manage & monitor their vessels automatic & continuous VMS transmissions at four hourly intervals. Default VMS is the IOTC's measure.</p> <p>VMS, including reports, must be consistent with the requirements of the RFMO where the vessel is fishing: IOTC once every four hrs; WCPFC that the two-way VMS is capable of reporting every hr & polling every 4 hrs; ICCAT once every 4 hrs. Reporting is to the flag State FMC only.</p>	<p>Unclear.</p> <p>Transshipment measure requires that all carrier and fishing vessel apply the regulations of the 2017 VMS measure.</p> <p>2017 VMS measure requires VMS on all fishing and support vessels, but specific RFMOs have size based applications (e.g. IOTC).</p>
IATTC	<p>Resolution C-14-02 required that VMS be installed on all fishing vessels 24m LOA or greater with polling every 4 hrs for longline vessels and every 2 hrs for other vessels. Reporting is to the flag State FMC only.</p>	<p>No.</p> <p>At-sea transshipment authorised for large-scale tuna longline fishing vessel defined as 'all vessels fishing beyond areas of national jurisdiction or beyond each CPC-controlled areas & targeting tuna & tuna-like species' & 'carrier vessels authorised by their flag State'.</p> <p>VMS applicable only to vessel 24m LOA or greater.</p>
ICCAT	<p>Recommendation 14-09 requires VMS on all commercial fishing vessels exceeding 20m between perpendiculars or 24m LOA or greater. Polling is required every 4 hrs with reporting is to the flag State FMC &, where applicable, to the coastal State, plus for</p>	<p>Yes.</p> <p>At-sea transshipment authorised for large-scale pelagic longline vessels defined as "vessels greater than 24m LOA".</p>

	vessels fishing for Atlantic Bluefin VMS reports must be forward to the Secretariat.	VMS required on all vessels 24m LOA or greater.
IOTC	Resolution 14/06 requires that all carrier vessels be equipped with a VMS but there are no specifications and no reference to Resolution 15/03 regarding the general VMS requirements which is required on all vessels on the high seas and all vessels 24m LOA or greater irrespective of the location of their fishing. Reporting is to the flag State FMC only.	No. At-sea transshipment authorised for large-scale longline fishing vessels which is not defined in the Resolution. VMS required on all vessel operating on the high seas but only required on vessel 24m LOA or greater when operating in-zone.
WCPFC	CMM 2014-02 requires that all fishing and carrier vessels are equipped with a two-way, simultaneously reporting VMS unit. Default polling is required every 4 hrs. Reporting is simultaneously to the flag State and the Commission VMS service provider on the high seas and to the FFA regional VMS for the waters under national jurisdiction of FFA members.	Yes. The Commission VMS is required on all fishing vessels on the high seas and the FFA VMS is required on all vessels operating in the waters of Pacific Island countries.
SEAFO	SEAFO System Article 13 requires that all fishing and carrier vessels be equipped with VMS. Polling is required every two hours and reporting is to the flag State FMC, then forward to the Secretariat.	Not applicable. At-sea transshipment is prohibited.
CCAMLR	The CCAMLR CM 10-04 requires VMS be installed on all fishing vessels permitted to be fishing inside the Convention Area. Polling is every hour for finfish fisheries & every 4 hrs for krill fisheries. Reporting is to the flag State FMC, then forward to the Secretariat no later than 1 hour of receipt for exploratory longline fisheries and no later than 10 days for all other fisheries.	Yes. VMS is required on all fishing vessels authorised to fish inside the Convention Area.

RECORD OF CARRIER VESSELS

Similar to the registration of fishing vessels generally, the information required to authorise a carrier vessel in the RFMOs is very similar, the exception being CCAMLR which does not have an authorised list of carrier vessels (Table 7). In CCAMLR there is no requirement for carrier vessels to be registered or authorised to accept transshipments, creating a significant loophole in the measure as it may mean that the supporting measures, such as VMS and in-port inspections are not effectively enforced for the carrier vessels, particularly if they are a flagged to a non-member. It is important that all vessels are duly authorised by the RFMO either using a broad definition of fishing vessel or through an authorised carrier vessel list. As noted above, this is an issue that Australia and the USA sought to remedy at the 2016 Commission meeting (refer to the CCAMLR section above for details). For the other RFMOs the key points are:

- IMO numbers – IATTC, IOTC and CCAMLR do not require carrier vessels to submit their IMO numbers, nor does the measure specify that the carrier vessel has obtained an UMO number. This is likely to be a simple case of poor cross-referencing between the Record of Fishing Vessels and the Authorised List of Carrier Vessels measures. As for the Transshipment Declaration (see below), it would be advantageous for all vessels and the relevant document to include the IMO number as key tool in monitoring lawful activities of vessels.

- Inclusion of additional fields describing the vessels structure, e.g. moulded depth, fish hold capacity and freezer chamber capacity, is only required in WCPFC and SEAFO. These fields may enable cross referencing and therefore verification of the information reported by the fishing and carrier vessels. Of note is that it would enable cross referencing of the quantity of fish onboard the vessels prior to each transshipment which could assist in the identification of any illegally transshipped product onboard the carrier vessel.
- Many of the additional fields (e.g., type of authorisation, nationality of the master, type of fishing method, etc.) are only collected by WCPFC and is a direct consequence of carrier vessels being included as part of the general authorisation for all fishing vessels as per the Convention (see WCPFC section above). One additional field, colour photographs, would be valuable for all of the other RFMOs as it would support MCS activities such as high seas boarding and inspection and/or aerial surveillance.

Table 7: Summary and comparison of the information required to register a carrier vessel on the relevant authorised list of carrier vessels in each of the RFMOs.

Information to be reported	CCSBT	IATTC	ICCAT	IOTC	WCPFC	SEAFO	CCAMLR
Flag State	✓	✓	✓	✓	✓	x implied	x
RFMO record number	✓	✓	✓	x	✓	x	x
IMO / UVI / Lloyds number (if available)	✓	x	✓	x	✓	✓	x
Vessel name & registration number	✓	✓	✓	✓	✓	✓	x
Previous name(s) & flag(s) (if any)	✓	✓	✓	✓	✓	✓	x
Previous details of deletions from other registries (if any)	✓	✓	✓	✓	✓	x	x
International radio call sign	✓	✓	✓	✓	✓	✓	x
Vessel type, length, GT / GRT and carrying capacity	✓	✓	✓	✓	✓	✓	x
Additional information: moulded depth, beam, power of main engines, capacity of the fish hold and freezer chamber, and normal crew complement	x	x	x	x	✓	✓	x
Name & address of owner(s) & operator(s)	✓	✓	✓	✓	✓	✓	x
Period of authorisation to transship	✓	✓	✓	✓	x implied	x	x
Type of authorisation / transshipment permitted	x	x	✓	x	✓	x	x

Type of fishing method	x	x	x	x	✓	✓	x
Port of registry	x	x	x	x	✓	✓	x
Nationality of the master	x	x	x	x	✓	x	x
Communication types and numbers	x	x	x	x	✓	x	x
Colour photos of the vessel	x	x	x	x	✓	x	x
Where & when the vessel was built	x	x	x	x	✓	✓	x

TRANSSHIPMENT DECLARATION

Table 8 compares the information requirements on the transshipment declarations of the RFMOs and the port inspection form for CCAMLR as per CM 10-03 as there is no transshipment declaration form. Generally, the required information is consistent between the RFMOs, however, there are some important points to note:

- Only WCPFC, ICCAT and CCAMLR, require the IMO number to be included on the form. It seems that CCSBT, IATTC and IOTC may have overlooked the importance of updating the transshipment measure with the mandatory requirement for IMO numbers as a key component in monitoring the lawful catch of fisheries products.
- Only WCPFC and CCAMLR require information about the fishing gear to be supplied; but these are also the only RFMOs where it is permissible for more than longline vessels to transship at-sea.
- Reporting of the by-product/catch and of the quantity already onboard the carrier vessels is only required in WCPFC. For the by-product/catch this is consistent with the requirements of each of the RFMOs, but it would seem prudent to have this accounted for transparency and accuracy of the records. In relation to the quantity of product already onboard, although not full-proof, this again provides continual verification of legitimate transshipment activities and it would be advantageous that it be included in other RFMO declarations.
- CCAMLR has some additional information fields, e.g. the next intended port. These additional data fields are likely to be related to the form being an in-port inspection form rather than a transshipment declaration form as such.
- There is no explicit requirement for the reporting of other species, for example it is unclear if there is a requirement in CCSBT for the transshipment declaration to also include other tuna species that is under the purview of another RFMO and for this information to be reported to the relevant RFMO. This highlights the need for global standards; linking the RFMO transshipment data collection and reporting would contribute to the elimination of IUU fish laundering between oceans and RFMOs.

Table 8: Summary and comparison of the information included on the Transshipment Declaration of each of the RFMOs.

Information to be reported	CCSBT	IATTC	ICCAT	IOTC	WCPFC	SEAFO	CCAMLR
Unique Identifier (IMO / Lloyds #)	x	x	✓	x	✓	x	✓
Fishing vessel name, registration & RFMO numbers	✓	✓	✓	✓	✓	✓	✓

International radio call sign of fishing vessel	✓	✓	✓	✓	✓	✓	✓
Flag of fishing vessel (CCAMLR + home port)	✓	✓	✓	✓	x implied	✓	✓
National registration number fishing vessel (CCAMLR + fishing authorisations)	✓	✓	✓	✓	x	x	✓
Fishing gear used (CCAMLR + vessel type, dimensions & contact information)	x	x	x	x	✓	x	✓
Quantity of product (CCAMLR quantity being transhipped & retained onboard, + details of all vessels that the catch originated from (IMO & DCD #s,))	✓	✓	✓	✓	✓	✓	✓
Type of product (whole, gutted, etc.)	✓	✓	✓	✓	✓	✓	✓
State of the product	x	x	x	x	✓	x	x
Quantity of byproduct	x	x	x	x	✓	x	✓
Geographic location of catch	✓	x	✓	x	✓	x	✓
Date and location of transshipment	✓	✓	✓	✓	✓	✓	x
Name and signature of observer	✓	✓	✓	✓	✓	x	x
Name & signature carrier & fishing vessel masters, and the agent/inspector	✓	✓	✓	✓	x	✓	✓
Date & place of carrier vessel's departure & return	✓	✓	✓	✓	x	✓	x
Carrier vessel name, registration & RFMO numbers	✓	✓	✓	✓	✓	✓	x
International radio call sign of carrier vessel	✓	✓	✓	✓	✓	✓	x
Flag of carrier vessel	✓	✓	✓	✓	x	✓	x
National registration number of carrier vessel	✓	✓	✓	✓	x	x	x
Quantity product already onboard carrier vessel	x	x	x	x	✓	x	x
Intended port, country, date & time of port entry; purpose; date & port of last port entry; ships agent; name(s) & address of owner(s), beneficial	x	x	x	x	x	x	✓

owner(s) & operator(s); VMS, masters name & nationality; DCD # and flag authority; photographic evidence.							
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Gaps, Shortfalls, and Strengthening Current Measures

This section highlights and summarises the key gaps and deficiencies in the measures as identified through the above analysis. In addition, options for strengthening the management and monitoring of transshipment are considered.

In-Port Transshipment

Monitoring in-port transshipment effectively requires a high level of coordination between the various domestic regulators plus clear guidance regarding the authority of these regulators at the national level. Monitoring in-port transshipments, particularly of foreign flagged fishing vessels may include five regulatory agencies: for example, the Fisheries, Port, Customs, Immigration, and Police and/or Military. Ratification of the FAO Port State Measures Agreement (PSMA) is an excellent first step, but it is only as effective if fully implemented at the port State level. This is particularly pertinent in developing countries where coordination between agencies may not be a well-established practice, and in countries with large EEZs or widely dispersed ports. In addition, fisheries may not have the profile to ensure that there is sufficient authority to implement the regulations, which leaves possible loopholes for poor governance and a lack of transparency. Support (funding and capacity building) needs to be provided to key port States globally to support the development and implementation of effective port State measures controls, including the implementation of the FAO PSMA.

Authorisation to Conduct At-Sea Transshipment

Although at-sea transshipment is regulated, it is important to recall that the authorisation to transship at-sea is actually an exemption to a vessel from the general requirement to conduct transshipment in-port. When considered in this context, then by RFMO the number of vessels that are actually required to transship in-port is actually very low for most of the RFMOs. Issuing exemptions enabling at-sea transshipment significantly reduces the potential effectiveness of the port State measures that provides a lower-cost compliance tool, while greatly increasing the potential loopholes of IUU fishing and cost of monitoring compliance. In addition, the high percentage of vessels that take advantage of the exemption rules for transshipment at-sea have the potential to create gaps for IUU fishing activities in fisheries and in associated areas such as labour laws and severely undermine the best efforts to sustainably manage the resource. Transshipment at-sea requires rigorous review. Strengthening control measures, including for example mandatory semi-regular port visits and mandatory VMS, AIS, air and satellite coverage of key areas plus appropriate sanctions to eliminate IUU practices must be part of the next generation of transshipment management.

Below are estimates for the number of vessels that are able to transship at-sea based on the rules governing authorisations to transshipment at-sea¹³. Importantly, the estimates below are not suggesting that all of these vessels are authorised at transship at-sea, but simply to highlight that the exemption could be granted to this number of vessels.

- **CCSBT** is difficult to estimate given that the authorisation is not related to the longline vessel size but its freezing capacity. To provide an estimate, any vessel above 20m LOA could have freezing capacity and using this basis, there are up to 398 longline vessels from a total of 473 registered longline vessels, or 84% of longline vessels, that are able to obtain the authorisation to transship at-sea and as such are exempted from transshipping in-port. This is approximately 54.8% of the total number (725) of vessels registered in CCSBT in 2017.
- **IATTC** is equally difficult to estimate as the authorisation is able to be granted to large-scale tuna longline fishing vessels but the length is not defined. However, IATTC requires registration and authorisation of all longline vessels greater than 24 metres LOA; there are 1296 vessels from 18 flag States registered as being authorised to fish for

¹³ Data correct for each of the RFMOs as at 20th March 2017.

IATTC species, but not necessarily for at-sea transshipment. If using this definition, and by way of an estimate, there are a total of 1296 registered longline vessels all of which would be capable of fishing beyond their EEZ and therefore covered by the definition of large-scale tuna fishing vessels in the IATTC measure. With 4497 vessels registered in IATTC, this equates to approximately 29% of all registered vessels able to be excluded from the requirement to transship in-port.

- In **ICCAT**, the authorisation for at-sea transshipment is limited to large-scale longline vessels, that being vessels greater than 24 metres LOA. There are 19,976 longline vessels registered to operate in ICCAT, of which 606 are 24 meters LOA or greater, or roughly 3% of all longline vessels and 2.2% of all vessels registered in ICCAT.
- Like CCSBT and IATTC, the **IOTC** is also difficult to estimate as there is no definition in the transshipment measure or generally for a large-scale tuna longline vessels. However, the register of authorised fishing vessels references vessel 24 metres LOA and greater, and vessels less than 24 metres LOA if on the high seas. If this definition is used, then there are 729 longline vessels of 24 metres LOA, plus a further 1,718 longline vessels less than 24 metres LOA, but greater than 10 metres (to exclude vessels that are unlikely to be fishing on the high seas) registered on the IOTC Record of Vessels. Of the 5,005 vessels registered to operate in the IOTC, this means that up to 2,447 (99%) longline vessels or 48% of all registered vessels are exempted from in-port transshipment.
- In **WCPFC** the WCPFC Record of Fishing Vessels is only required for vessels operating outside their own flag States waters. As such there is no understanding of the numbers of vessels that may be transshipping at-sea inside waters under national jurisdiction. Although this transshipment, like all of the RFMO at-sea transshipment, is regulated, there is very little transparency of the activity inside waters under national jurisdiction. On the high seas in the WCPFC Convention Area, the only vessels that are not able to be granted an authorisation for at-sea transshipment are purse seine vessels. Of the 4,635 vessels on the WCPFC Record of Fishing Vessels, there are 468 purse seine vessels (10%). There are 91 purse seine vessels flagged to the Philippines that could be, in accordance with paragraph 25(a), excluded from the prohibition of at-sea transshipment (currently only 36 are provided access to High Seas Pocket 1 under CMM 2016-01). There are no purse seine vessels flagged to PNG. Combining the excluded 91 purse seine vessels with the 4167 non-purse seine authorised vessels that, in accordance with paragraph 34 and 37, can be considered that at-sea transshipment is 'impracticable'. The WCPFC Record of Fishing vessels requires that the authorisation to transship be shown on the list. At the time of writing there were 2,450 vessels (53%) authorised to transship at-sea in the WCPO.
- There are 44 vessels authorised to operate in the 2016-2017 **CCAMLR** fishing season. As there is no general prohibition on at-sea transshipment, this means that all 44 vessels are able to transship at-sea. As previously noted, fishing vessels targeting species other than krill are not likely to transship-at-sea and there are 12 vessels (21%) that are listed on the CCAMLR website as targeting krill. In addition, these vessels are only subject to 50% port inspection, compared to the 100% port inspection for all toothfish fishing vessels.

From the above discussion, it is evident that there are varying rules governing which vessels are able to be authorised to transship at-sea, or which vessels are exempt from the general prohibition of in-port transshipment. Notable are the variation in definitions of a large-scale longline fishing vessel. Particularly for those RFMOs that share a border, it would be advantageous to have a **uniform definition of which vessels are included in any possible authorisation of at-sea transshipment**. This includes defining the criteria for inclusion, for example what large-scale refers to, but also related to the species covered, the geographical extent and the type of vessels. For example, it is important to move toward a universal definition of 'fishing' and 'fishing vessel' and that all relevant species are covered. Many of the tuna RFMO's measure only apply to the tuna and tuna-like species and in some cases sharks, leaving no coverage of all other species. In the IOTC, it is in fact a non-tuna species, oil fish, that makes up the bulk of the product transshipped in the region. This species is not covered by the IOTC treaty, but is covered by the Southern Indian Ocean Fisheries Agreement (SIOFA), which is yet to implement a measure for transshipment at-sea. This basically points to the elimination of as many

exemptions as possible, and is most pertinent in the WCPFC where there are exemptions for small scale purse seine vessels, purse seine vessels operating exclusively in-zone, for troll, longline, pole and line vessels, etc.

Apart from WCPFC, there is no guidance by the Commission regarding **criteria for flag States to use in issuing the authorisation to transship at-sea**. The guidelines are only interim in WCPFC and even the Secretariat notes that these existing interim guidelines are “difficult to implement in practice” and that “there are no criteria by which to assess ‘significant economic hardship’ or ‘significant and substantial changes to its historical mode of operation’” (paragraph 9 or WCPFC-TCC12-2016-15_rev2). Equally there is no oversight by any Commission of the authorisations issue by the flag State. This is particularly important if there is little to no transparency of the vessels’ actions at the Commission level. This is not to suggest that flag State control be relinquished, but rather that as a shared public resource there needs to be greater transparency of the actions and arrangements of the flag State and the RFMOs. The adoption of criteria, that are easily implementable and verifiable, on which at-sea transshipment authorisations are permitted would go a long to ensure consistency between the objective of an RFMO treaty and measures adopted to regulate fishing, monitor compliance, and prevent IUU fishing.

Although some States have argued that as at-sea transshipment is ‘common practice’ that it should therefore continue to be permitted, SEAFO has prohibited at-sea transshipment. In addition, there are examples where analysis suggests that there is **no reason to permit at-sea transshipment** due to possible links with IUU fishing and definitely due to the lack of transparency and reduced data collection. Notable is the review of the background and compliance with the WCPFC transshipment measure by the then Executive Director of the WCPFC, Prof. Glenn Hurry. It made two conclusions 1) that *‘while CMMs are providing documentation to support known transshipments there appears to be little or no compliance with any of the other provisions of the interim guidelines. No compliance has occurred in respect of the provision of paragraph 35(a)(i) and (v)¹⁴ [of the WCPFC CMM]’*, and 2) that *‘if transshipment by non-purse seine vessels is allowed to continue in the WCPFC Convention area it must be done under strict conditions and these conditions must be fully complied with. If the conditions are not complied with in full the right to tranship should be immediately withdrawn from that flag State’*. In addition, NGOs are increasingly calling for a complete prohibition of at-sea transshipment unless and until the practice is better regulated. If a prohibition of at-sea transshipment were implemented there would still be a requirement for rigorous monitoring measures to ensure compliance. If the practice of at-sea transshipment is to continue, there may be benefits to harmonising the vessel type, size and areas, e.g., providing a set common global standards, where transshipment can occur. For example, there has been some thinking around allowing at-sea transshipment in prescribed areas either of the high seas or elsewhere. If implemented, this would enable MCS assets to be centralised at this location. However, conversely this could leave all other areas subject to greater risk of illegal transshipment activity with possibly less MCS oversight. Careful consideration of all management measures is required to ensure that the overarching objective, rigorous regulation of transshipment, is delivered through the management measure.

There is **no requirement for bunkering vessels to be included in the transshipment measure**. If we consider that it is mostly large-scale longline vessels who are able to obtain authorisation to transship at-sea, that these vessels can stay at-sea for months to years due to their access to transshipment, including bunkering, then all possible risks associated with the activity need to be considered. Although it may be a low risk, there is the potential for high value products, such as shark fins, to be transhipped to bunkering vessels. It could be important to reconsider this risk and, based on the risk profile, the management of transshipment with these vessels. Moreover, there could be consideration of limiting the number of consecutive at-sea transshipments such that the vessel must return to port once in roughly every 12 months. If such a measure were implemented it may help to address a range of key issues associated with transshipment and more. For example, there would be opportunities to verify the vessel safety standards, labour conditions, take updated

¹⁴ Paragraph 25(a)(i) and (v) of the WCPFC CMM states: “Where transshipment does occur on the high seas: (a) the CCMs responsible for reporting against both the offloading and the receiving vessels shall, as appropriate (i) advise the Commission of its procedures for monitoring and verification of the transshipments, (v) submit to the Commission a plan detailing what steps it is taking to encourage transshipment to occur in port in the future.”

photographs of the vessel, cross-reference relevant documentation and conduct/update a vessel risk assessment all by requiring that the vessel can only conduct a prescribed number of consecutive at-sea transshipments or time at sea.

The geographic extent of the transshipment measures, for all RFMOs (CCSBT, IATTC, ICCAT, IOTC, SEAFO), except WCPFC and CCAMLR, the entire treaty area is included in the measure. Ideally, as is the case for the majority of the RFMOs, the **transshipment measures should be uniform throughout the RFMOs area of competence**. WCPFC does not stipulated the regulations for transshipment inside the waters under national jurisdiction, only that they follow the domestic regulations. Reviewing the domestic transshipment regulations is beyond the scope of this review, and although the domestic regulations may be very rigorous, the simple fact is that there is little transparency of these regulations and no oversight by the Commission of the transshipments inside these waters. An opaque operation of transshipment is not a viable option of the management of highly migratory tuna resources; particularly with increasing needs for management and scarcity of the resource. In CCAMLR, transshipment is based on species in specific areas and provides specificity for the fisheries occurring under that Convention. As such, it is suggested that uniform transshipment regulations are adopted for an entire convention area to provide greater transparency, while contributing to more effective management through the adoption of compatible standards for transshipment both inside and outside waters under national jurisdiction adopted at the regional level. This is particularly crucial given the lack of general transparency of the operations of some fleets, for example, the longline fleet. These fleets are the largest user of at-sea transshipment in the WCPFC high seas, but it is easy to move undetected into EEZs to undertake unmonitored and/or unregulated transshipment if there was an unscrupulous operator.

Monitoring, Control and Surveillance Measures

VMS

In relation to VMS, firstly, there needs to be rigorous cross referencing between the requirements of the VMS measure and the transshipment measure to ensure that all vessels permitted to conduct transshipment have mandatory VMS coverage. Ideally all RFMOs have mandatory 100% VMS onboard all vessels operating outside of their national waters. In addition, given the usefulness of AIS data in tracking possible transshipment events, it may be worth considering a requirement for AIS on fishing vessels (where it is not already required) and to monitor AIS feeds together with VMS to enable tracking of possible IUU fishing and provide greater transparency for at-sea transshipments. Already there is increasing consideration for the use of both AIS and/or two ALC units on vessels to ensure that there is continual monitoring of the vessels' positions. Although this may require changes to IMO rules for AIS requirement, it is considered that either of these additional measures would support cost-effective remote on-water surveillance.

Secondly, VMS measures must be strengthened to ensure that there is greater transparency and oversight of the vessels actions by an independent third party. This can be achieved through implementation of a centralised VMS system and simultaneous reporting to both the flag State and a VMS service provider which notifies the RFMO Secretariat on any possible issues of non-compliance with the measure, for example malfunctioning VMS units. It is imperative that all RFMOs move toward the implementation of a centralised VMS at minimum for the high seas, and ideally with an opt in clause for coastal State EEZ areas. In addition, there must be an allowance for coastal States to see the first 100 nautical miles into the high seas surrounding their EEZ boundary as a mechanism to support effective coastal State MCS programs.

OBSERVER PROGRAMS

All of the RFMOs that permit at-sea transshipment have implemented observer programs on the carrier vessels, which is to be commended. However, this leaves a gap in the observer coverage of fishing vessels, mostly longline vessels, that are permitted to transship at-sea. The current regulations for longline fishing vessels stipulates that there is only a minimum of 5% observer coverage required, which may or may not be at the time of transshipments. Moreover, flag

State compliance with the minimum observer coverage obligation is very low. Together with high levels of non-compliance by longline fishing vessels for a range of other measures (e.g. data reporting), there is a lack of general transparency in longline fishing operations and consequently there is at minimum, a perception if not a real risk, of illegal transshipment, particularly on the high seas. For example, although it is an IUU fishing offence to tamper with the VMS unit, vessels can go “dark”, that is that they stop transmitting to their flag authorities. As noted through the analysis, observer coverage is on the carrier vessels, but it is widely known that longline vessels also transship to another longline vessel with no observer coverage. This enables the possibility of laundering illegal catch particularly if there is insufficient interrogation of a fishing vessel’s logbooks, which if in paper form can be easily modified. Consequently, observer programs still remain a critical component of transshipment management.

ISSF’s 2014 review highlighted the need to have observer coverage of all transshipments. Given the increasing uptake, availability and cost-effectiveness of electronic monitoring technology, observer coverage should be now a mandatory requirement on all carrier and fishing vessels. Implementing increased human observer coverage, combined with 100% electronic monitoring coverage, on both the fishing and carrier vessels should be part of any amendments to transshipment management arrangements. Likewise, all reports from observers should be sent directly to the Secretariat irrespective of the area where the transshipment took place or the national authority. This could simply be a duplicate report of the reports that are sent to the national authority, but it is imperative that the Secretariat has a complete picture of all transshipments within the RFMOs area of competence. Another critical element of the observer programs is the need to have specific training and standards for observers on carrier vessels and/or providing coverage of transshipments. At this time, the measures do not define training programs specific for carrier vessels or for transshipment activities. As such it would be beneficial for observers to be trained to a specific standard and understand the key things to look for in transshipment activities.

IUU VESSEL LISTING

In relation to [IUU vessel listing](#), there needs to be a direct link between any alleged non-compliance with the transshipment measure and the IUU fishing vessel listing measures. Such a process could, for example, be included in the transshipment measure. Text that results in any alleged infraction detected in relation to transshipment should result in both the carrier and the fishing vessel being automatically referred to the draft IUU vessel list, with all relevant flag States thereby required to follow the investigative processes outlined in the relevant IUU fishing measure, makes this link explicit.

To support the identification of possible infractions by a vessel, it would be advantageous, as ICCAT and WCPFC have done, to require that both the fishing and carrier vessels retain onboard a copy of all authorisations to conduct transshipment. In addition, RFMOs may consider, as ICCAT has (paragraph 13), to only permit transshipment between pre-specified fishing and carrier vessels. Both of these actions support the role of the observer who is not necessarily supported by real-time information from Commission databases.

PORT STATE MEASURES

All of the RFMOs allow transshipment in the case of *force majeure*, consistent with international law. Along with the notification to the Secretariat as soon as practicable following the resolution of the *force majeure*, it may be worth considering that the vessel be subject to mandatory inspection following the *force majeure*. Inspection of vessels could be required particularly if the vessel voluntarily entered a port, but equally on the high seas though applicable RFMO high seas boarding and inspection programs. Mandatory inspection could provide reassurance of the vessels sea-worthiness, while checking for any other violations including those related to non-fishing issues.

In relation to cross-referencing and verifying the catch reports with the transshipment reports, there is a gap in that fishing vessels are not required to submit a report to the port State, only to its flag State. The port State only received information from the carrier vessel and consequently, the port State is not in a position to verify the accuracy of the

information without contacting the flag State, which may be on the other side of the globe. To enable effective verification and monitoring in-port, it seems best if both the fishing and carrier vessels provided independent reports of the intended transshipment quantities to the port State authorities and Secretariat to enable cross-validation with carrier vessel transshipment records and with fishing vessel logbooks where relevant.

COMPLIANCE MONITORING AND A SCHEME OF RESPONSES FOR FLAG STATES

Another related component, is the implementation of a rigorous assessment of flag State compliance with measures and, importantly, a scheme of responses for wilful, ongoing or serious breaches of an RFMO's conservation and management measures. Non-compliance by a flag State, including a failure to implement sufficient management of transshipment activities, needs to be considered as a serious violation of conservation and management measures with the imposition of appropriate sanctions to be associated with this kind of infraction. Although all of the tuna RFMOs have implemented a flag State compliance assessment process, the development and implementation of a scheme of responses to non-compliance remains incomplete (refer to ISSFs Technical Report on RFMO Compliance Assessment processes). Given the risk that is posed by insufficient transshipment regulation, it is important that there are strict penalties for non-compliance, for example IUU listing of the vessel, removal of the ability for the flag State to issue authorisations for at-sea transshipment, or a requirement that all transshipments be conducted in-port. Clear and decisive penalties are critical in changing perception and deterring illegal behaviour on the water.

HIGH SEAS BOARDING AND INSPECTION

Apart from WCPFC, CCAMLR¹⁵ and SEAFO, none of the other RFMOs¹⁶ have adopted or implemented schemes for high seas boarding and inspection, however the relevant UNSFA articles do still apply between Parties to the UNFSA (Articles 21 and 22). These schemes are fundamental in monitoring real-time compliance by fishing vessels on the high seas. Although these assets cannot inspect all vessels, using a risk-based approach, a high sea boarding and inspection scheme can provide targeted monitoring of high risk fishing and carrier vessels and/or geographic locations where such operations are alleged to occur.

Reporting

The reporting timeframes associated with various components of the transshipment measures could also be tightened to ensure that the most effective MCS action is in place and enables the deployment of MCS assets. For example, 24 hours prior notification of the intention to transship at-sea is not likely, particularly in a large EEZ, to be conducive to the deployment of an asset as part of a high seas boarding and inspection regime or even an observer on the longline vessel. Furthermore, the transshipment declaration is only required to be reported within 15 days following the transshipment, whereas very similar information is provided at the time of the transshipment. The most precautionary approach would be to have the transshipment declaration completed and transmitted to the flag State, the Secretariat and the landing port State authorities (if known) immediately following the completion of the transshipment, that is near real-time. In doing so, there would be greater time for all relevant actors to cross reference and verify the information and therefore be confident that the product has been sourced legally, particularly with the implementation of electronic reporting. In addition, the moves toward implementing catch documentation schemes will require this near real-time reporting.

¹⁵ Although not covered in this report, CCAMLR has implemented its at-sea boarding and inspection through the System of Inspection (SOI) which includes procedures for boarding and inspections at-sea <https://www.ccamlr.org/en/compliance/system-inspection>.

¹⁶ ICCAT has the Joint System of Inspection, which although not the same as a HSBI, it does allow for inspection on the high seas among those participating in the Scheme.

ISSF's 2014 review of transshipment highlighted a need to require transshipment declarations from all fishing operations, including from all in-port and all at-sea transshipment. All of the RFMOs, except WCPFC and CCAMLR require the completion and submission of a transshipment declaration for transshipments in-port. For WCPFC there is no requirement as this is directly related to transshipments inside waters under national jurisdiction being subject to domestic law, and for CCAMLR there is only a requirement for prior notification of the transshipments. In both these cases, if a declaration was required it would provide greater support to cross referencing the legal catch from any illegal catch/activity. This was also a recommendation from the Kobe Process.

All transshipment reporting should also be included in, and integrated with, electronic reporting programs. The need for near real-time reporting is only increasing, for example, when considering the implementation, or compliance with existing, catch documentation schemes. Moreover, it supports greater cross-referencing of the catch and effort activities when it is integrated with VMS, [authorised vessels lists](#) and other monitoring databases. Furthermore, there has been a longstanding recommendation to have a specific transshipment declaration form. At this stage, only WCPFC and CCAMLR are yet to implement a standard transshipment declaration form (WCPFC outlines the information to be included in any declaration but has not implemented a specific form and CCAMLR does not have either information requirements or a specific form). Along with implementing a specific form at the RFMO level, there may also be merit in considering a standard fisheries transshipment declaration form that could apply universally for all fisheries products. This would simplify the reporting as many countries are members of more than one RFMO.

Other Considerations

IMPLEMENTATION OF A RISK BASED APPROACH TO PERMITTING AT-SEA TRANSSHIPMENT

Empirical evidence of IUU fishing by longline fishing vessels and transshipment is somewhat limited, but both the Kroodsma et al (2017) and Stop Illegal Fishing (2017) reports demonstrate the direct link between transshipment and IUU fishing in areas. Kroodsma et al (2017) highlights that IUU fishing is often in areas with limited or ineffective governance arrangements and Stop Illegal Fishing (2017) provides evidence linking transshipment with other illegal activities including trafficking of wildlife, arms and drugs. These reports provide initial studies on the nature and extent of transshipment and it is hoped that further work will further shed light on any links with IUU fishing. Despite limited explicit links between illegal activities and transshipment, this does not suggest that there is no risk, but rather it acknowledges that to appropriately address the risk of labour abuses and non-compliance with fisheries management arrangements, there must be significant improvement in the transparency of existing longline fishing operations. For example, the MRAG Asia Pacific (2016) IUU quantification estimated that in the longline sector in the western and central Pacific Ocean that IUU volumes are largely driven by misreporting (49% of total tropical longline volume) and post-harvest risks (39%), of which they cite is principally illegal transshipment. The report goes on to identify that the tropical longline fishery accounted for the highest ex-vessel value of IUU product (\$272.55m) due to the higher market value of its target species, that is sashimi grade tuna, and that therefore the tropical longline sector accounted for around 44% of total overall estimated IUU value in the region. In contrast, the purse seine sector accounted for 37%, and the southern longline section accounted for 19% of the total overall estimates of IUU product value. Allowing at-sea transshipment by higher risk large-scale longline vessels without also implementing improved transparency and monitoring measures seems counter intuitive; either at-sea transshipment is prohibited for all vessels or that in granting authorisation to conduct at-sea transshipment, each vessel must commit to implementing rigorous measures to ensure transparent operations at all times.

Recognising the global nature of the tuna fishing fleet, coupled with its perceived and/or real risk and its links to IUU fishing, transshipment is an area where a universal management approach is more likely to provide tangible outcomes in detecting and deterring IUU fishing. For example, there could be consideration of implementing a formal risk assessment process by individual RFMOs, or collectively through the Joint Tuna RFMO meetings, and implementing standardised

transshipment management measures that address these risks, including strengthening complementary MCS measures and compliance assessment processes.

COMPLIANCE BY RFMO MEMBERS

In reviewing the most recent compliance report of each of the RFMOs, where available, it is clear that there are a range of issues with the implementation of, and compliance with, the transshipment regulations. These issues may be related to the ability of the flag State to assert control over its flag vessels, or simply rogue fishers. A brief summary of the key points and issues is provided for those RFMOs where a report is publicly available.

The 2017 **IATTC** transshipment report (IATTC 92-06) highlights an increasing trend in the use of transshipment in the region. Between 2009-2016, there were 3,868 transshipment events, but the Secretariat reports a 32.5% increase in the number of transshipments from 2015 to 2016, which is also increasing year on year. The report also shows a 41% increase in the tonnage (metric tonnes) transshipped by Chinese flagged vessels, of which 60% was reportedly albacore. Critically, of the total tonnage transshipped in 2016, bigeye tuna, an overfished stock, made up 31%, with 29% from Chinese flagged vessels, 23% from Korean flagged vessels and 18% from Chinese Taipei flagged vessels. Of note is that a third of all catches in the IATTC transshipment program are landed in the WCPFC Convention Area. The primary users of the transshipment program are the key longlining States: China, Japan, Korea, Vanuatu, Chinese Taipei and Panama, with Indonesia, Peru and Mexico using the program only sporadically. This is in contrast with the 18 States flagging 1,296 large-scale longliners authorized to operate in the IATTC. There are reportedly 64 carrier vessels currently registered on the IATTC transshipment program to ten flag States, with Liberia the largest carrier vessel fleet with 27 carrier vessels registered.

The report also highlights only 22 infractions for the most recent reporting period (2015). Unfortunately, only a summary of the type of infractions is provided in the report. There is no understanding to which vessels, or their flag State, that the infractions pertain. In relation to direct fisheries infractions, all that is reported is that there were 12 infractions were related to differences between the vessels and the observer's estimates of catch and 3 infractions related to shark fins onboard. The other seven infractions are related to sanitary conditions and infractions against MARPOL. Of course, the ability to detect infractions is directly related to the strength of the transshipment regulations and the associated MCS measures, plus the level of cross referencing with other reporting requirements. To that end, Table 3.2 of the report highlights the longline bigeye tuna catch limits from C-17-01 by flag and the reported catches of the same in 2016. For all flag States, except China, there is significantly less bigeye tuna transshipped than the catch limit. For example, Japan has a quota of 32,372 metric tonnes but only reported 2,343 metric tonnes of bigeye transshipped in 2016. Given that this all relates to longline caught fish, it should be of interest to other members, and it at minimum worth further investigation and cross-referencing with other RFMO data sources.

The 2017 **ICCAT** transshipment report (PWG-402/2017, CoC305 and associated appendices) provides a summary of the 2016 transshipments; there is no comparison with previous transshipment reports and to do so is beyond the scope of this report. There was a total of 31,057 metric tonnes transshipped at-sea in 2016, and of this total, approximately 79% was bigeye tuna, a stock which scientists believe has a 70% probability of being overfished and subject to overfishing. Of the total 24,499 metric tonnes of bigeye tuna transshipped, 47% was transshipped by large-scale longline vessels flagged to Chinese Taipei. In fact, 41% of the total ICCAT tonnage transshipped was by vessels flagged to Chinese Taipei, with Japan the second highest at 31%. In 2016 there were 854 at-sea transshipment events involving eight flag States. The highest number of transshipment were by Chinese Taipei flagged vessels (384), followed by Japan (238), China (177), Korea (19), St Vincent & Grenadines (11), Belize (12), Côte d'Ivoire (10). There are currently 110 carrier vessels registered to ten flag States: the Bahamas (20), Curaçao (5), various EU flags (9), Ghana (2), Japan (4), Korea (4), Liberia (23), Morocco (1), Panama (41), and Singapore (1). Details of the infractions are provided in an Annex to the summary report, which is located on the [meeting website](#), but is not readily locatable on the ICCAT website. There is no summary of these infractions provided in the summary report itself. Of note in the detailed appendices is that the infractions are associated with a small number of flags and an even smaller number of vessels. Importantly, there are

instances of a single vessel with multiple flags and multiple possible infractions reported. For example, during the reporting year the *Lady Tuna* was flagged to Chinese Taipei, China and Cote d'Ivoire, and had six separate possible infractions reported against the vessel related to logbook reporting and vessel marking. In this instance, it would seem that, although the vessel has rectified the observed infractions, it may be prudent for the Commission to consider further MCS requirements on this vessel to ensure that they comply with all relevant ICCAT measures. Another interesting point is the lack of reporting by ICCAT parties against the in-port transshipment requirements (paragraph 6 of Appendix 3 of the Recommendation). There are 14 parties (out of 54) annotated with 'no information', meaning that "no report was received and the Secretariat does not know whether or not the requirement is applicable" (emphasis added). Given that there was 1,177,258 kilograms of ICCAT species transshipped in port in 2016, it is critical that the ICCAT members clarify that all CPCs must report the amount transshipped in port, including a 'nil' report to confirm that no transshipment took place in port in that reporting period. Furthermore, this again highlights the issues surrounding self-reporting related to the implementation and compliance with obligations adopted by RFMOs, further discussion on this point is beyond the scope of this report, for those interested please refer to [ISSF Technical Report 2016-06 Promoting Compliance in tuna RFMOs](#).

The 2017 IOTC transshipment report (IOTC-2017-CoC14-04a and 4b) provides information on transshipment events in the 2016 calendar year. Like the IATTC report, transshipments in the IOTC area has increased in 2016: the Secretariat reports that the number of transshipments doubled in 2016, as did the observer deployments. Of note is that the transshipments by vessels flagged to Taiwan dwarf the combined transshipments of all other eight parties involved in the transshipment at-sea program in both 2015 and 2016. Of the total 1,215 transshipment events in 2016, 810 events were undertaken by Taiwan flagged longline vessels and, importantly, recall that these vessels are not subject to IOTC obligations as Taiwan is not able to be a party to the IOTC treaty. China and the Seychelles, with 131 transshipment events each, records the next highest number of transshipment events by flag State. In relation to the quantities and species transshipped, there was a total of 62,756 metric tonnes transshipped of which bigeye tuna was the highest (26%) followed by yellowfin (20%), and albacore (19%). As noted in the text, there is also considerable transshipment of non-IOTC species by vessels authorised by the IOTC to fish for IOTC species: in 2016 oil fish accounted for 16% of the total tonnage transshipped. Similar to the other RFMOs, the eight parties involved in the at-sea transshipment program also have the greatest number of longline vessels: China, Korea, Japan, Malaysia, Oman, Seychelles, Tanzania and Taiwan, China. Of note, is that the greatest number of transshipments are being made by non-coastal States, that is vessels flagged to so called Distant Water Fishing Nations whose flag State control needs to span the globe. In relation to carrier vessels, there seems to be some discrepancy between the Observer Program and the Secretariat report. The information provided here related to the Secretariat report, which notes that there were 82 carriers flagged to nine States, of which 14 vessels were flagged to IOTC non-cooperating and non-contracting parties: Kiribati (1), Panama (5), Singapore (1), and Taiwan, China (7). The consequence being that these States and their vessels are under no obligation to comply with IOTC regulations and no mechanism for the IOTC parties to review compliance or take action in the event of illegal fishing being detected. In relation to possible infractions, the Secretariat provides a comprehensive report which is publicly available from the IOTC website on possible infractions identified through the IOTC Regional Observer Program (IOTC-2017-CoC14-8b). The report identifies a total of 474 possible infractions in five categories: 87 possible infractions are associated with authorisations to fish; 134 related to VMS; 131 related to logbooks; 121 related to marking of fishing gear; and 1 related to an intention to transship outside of the at-sea transshipment program. A summary of the possible infractions by flag State is provided in Table 9.

Critically, following investigation by the flag State, the advice from the Compliance Committee was simply to note the possible infractions, including possible repeated offences (125 vessels from five flag States). There is no linking between the identification of possible infractions by the Regional Observer Program and the IUU vessel list or the IOTC's compliance monitoring program itself.

Table 9: Possible infractions reported under the IOTC's Regional Observer Program in 2016.
Source: IOTC-2017-CoC14-8b.

		China	Taiwan, Province of China	Japan	Korea	Malaysia	Oman	Seychelles	Tanzania	Total by Category
Authorisation to Fish (ATF)	Possible infractions	1	82			2	2			87
	Responses received	1	82			2	2			87
Vessel Monitoring System (VMS)	Possible infractions	16	91	3		2	2	20		134
	Responses received	16	91	3		2	2	20		134
Fishing Logbook	Possible infractions	43	7	59	7	4	3	6	2	131
	Responses received	43	7	59	7	4	3	3	2	128
Marking of vessel	Possible infractions	40	65	1	4	3	3	5		121
	Responses received	40	65	1	4	3	3	4		120
Transshipment outside the ROP	Possible infractions		1							1
	Responses received		1							4
Total by fleet	Possible infractions	100	246	63	11	11	10	31	2	474
	Responses received	100	246	63	11	11	10	27	2	470

No possible infraction notified
 Fleet(s) with missing response(s) to possible infraction(s) notified

The 2016 WCPFC transshipment report is prepared by the Secretariat covering transshipment events in the period 1 January 2015 – 30 June 2016 and provided to the Technical and Compliance Committee. Importantly, given that the CMM sets obligations for the high seas, the report also pertains primarily to transshipment in the high seas. In addition, in accordance with the Compliance Monitoring Scheme, compliance with the measure is reviewed in closed session of the same meeting. The summary report notes, that there were approximately 52,261 metric tonnes of product transshipped at-sea in 2015. Of this, it was again bigeye tuna, a species that is overfished and is possibly still subject to overfishing, that accounted for the greatest proportion (52%). Albacore accounted for 18%, yellowfin 16% and swordfish approximately 8%. The report highlights that approximately 50% of the longline fishing vessels are permitted to conduct at-sea transshipment, but given that it simply takes an assessment of 'impracticability' by the flag State for the authorisation to transship at-sea to be provided, there is the possibility many more. In 2015, there were 753 high seas transshipment events reported from 310 fishing vessels flagged to five States. China records the highest number of transshipments (240), followed by Vanuatu (210), Chinese Taipei (186), Korea (88) and Japan (29). The transshipments were received to carrier vessels flagged to five States: Vanuatu, who recorded 493 transshipment transactions, Korea with 83, Kiribati 68, Chinese Taipei 55, and Panama 54. The WCPFC report usefully cross-references the prior transshipment reporting notifications with the transshipment declarations. This piece of information is very telling: three of the seven flags have instances where the prior reports are not equal to the transshipment declarations, with one State, Vanuatu having discrepancies with both the offloading and receiving vessels. This highlights the fundamental need to implement near real-time reporting in the RFMOs. In relation to the overall compliance with the measure, the Compliance Monitoring Scheme summary report highlights a high level of non-compliance by those States participating in the program. For example, related to reporting on transshipment events anywhere in the Convention Area (paragraph 11) there was 18% non-compliance related to the quantities transshipped and 27% non-compliance related to reporting of the

number of transshipments. Significantly, there is 42% non-compliance with regard to the notification by flag States of their vessels for which it has deemed it impracticable to conduct transshipment in-port (i.e. which vessels are permitted to transship at-sea). Likewise, there is high non-compliance with all components of paragraph 35 which outlines the reporting requirements for all high seas transshipments: 8% non-compliance related to the vessels to which the determination of impracticability applies; 25% relate to prior notification of intended transshipment; and 25% relate to the transshipment declaration. The States associated with this non-compliance include: China, Kiribati, Panama, Chinese Taipei and Vanuatu. In addition, there is also a very high level of non-compliance related to the reporting deadline with 58% and 50% non-compliance related to meeting the reporting deadline associated with the prior notification and the transshipment declaration, respectively.

For CCSBT, CCAMLR and SEAFO there is limited information available, as the reports are not publicly available, again pointing to the lack of transparency of the RFMOs generally and of the flag State actions specifically. The CCAMLR Commission XXXV report highlights simply that there were 70 transshipment events involving seven vessels but only three port inspection forms were received at the Secretariat and that the Commission failed to adopt a list of carrier vessels authorised to conduct transshipments in the CCAMLR Convention Area. These issues highlight significant gaps in the ability of the Commission to identify possible non-compliance and, particularly for krill which is not subject to the CDS, therefore its ability to effectively monitor transshipment within the Southern Ocean. There is no information available summarising transshipment, whether in-port or at-sea, for SEAFO and CCBST creating a noteworthy lack of transparency related to transshipment regulations and flag State compliance with measures adopted by the RFMO. However, the CCSBT Compliance Committee report (CoC11) does note that the compliance plan for the coming two years should address the risk associated with transshipment both in-port and at-sea and the limitations of observers in being able to detect infractions. The report also highlights compliance issues related to VMS at the time of transshipment. In addition, there is recognition of the need to cross reference the port inspection measure with the requirements of the transshipment measure and a direct link in the IUU vessel listing measure of transshipment being subject to IUU listing.

ROLE OF THE SECRETARIAT

It is imperative to recognise that States, flag, port and landing, are responsible for the verification of the transshipment information, but that they are not privy to the other relevant information, such as the VMS records, to make that determination. In addition, there is limited oversight at the Commission level as other RFMO members are only able to review either summary information or compartmentalised information. For example, most of the RFMO Secretariats produce an annual summary report of the compliance with the measures, and in CCAMLR, Members have access to a list of transshipments. However, there is no access to the VMS, logbook or other relevant information on which to verify compliance by the vessel with the transshipment obligations. The Secretariat is best placed to provide independent oversight and verification of a vessels compliance with the transshipment measure. Despite the information accessible by the Secretariat (VMS, AIS, catch and effort reports, etc.), in some instances the Secretariat has not been provided the authorisation by the Commission to identify vessels of interest even to the flag State and seek clarification or action by that flag State. Providing a clear mandate for the Secretariat to fulfil the role of independent monitoring sends a strong signal that any suspect activities will be thoroughly investigated, brought before the Commission and possibly result in IUU vessel listing or other sanctions. Findings of infractions from the Secretariat can then be considered by Members in accordance with the automatic draft IUU Vessel listing. It is no longer adequate to rely on self-reporting by CPCs, there needs to be independent verification of the reports of the CPCs which could include addressing the expectations of markets and the public regarding the management of a public resource and the equally important issue related to abuse of national and international labour laws.

RELATIONSHIP WITH COASTAL AND PORT STATE LAWS

Coastal States are to be commended for implementing strong decisive fisheries management regulations, but the risk of have different measures in different jurisdictions is important to consider and address. This is not limited to waters under

national jurisdiction versus the high seas, but needs to also consider the differing regulations in coastal States. Consistent with UNFSA Article 7 regarding compatibility of conservation and management measures between high seas and waters under national jurisdiction, RFMOs need to give careful thought to how best to mitigate the risk of laundering IUU fish throughout their relevant convention areas. If there are stronger measures in-zone than are mandated on the high seas or another coastal States waters, then it is likely that any illegal activity is simply moved to the area with less rigorous management and monitoring in place. Agreeing on common measures and their implementation for the high seas is of course more difficult as there are many more actors involved, but this issue must be considered as it has a direct bearing on the conservation and management of highly migratory fisheries resources which all parties have agreed, through their ratification of the relevant RFMO treaty, to address.

There also needs to be a direct and explicit link between transshipment management and port State obligations. As this analysis has shown, there is a need to cross reference the RFMOs MCS measures to ensure that they are working in concert to achieve the treaty objective(s). This is particularly relevant in relation to port State obligations. With the FAO Port State Measures Agreement now in-force and a number of the RFMOs having adopted measures to give effect to this global legislative instrument, it is essential for relevant measures to be reviewed and amended as necessary to ensure that they strengthen the overall management and monitoring of the fishery. This could be achieved by Members individually, or collectively through an official Commission body, or by tasking the Secretariat to undertake a regular review of the obligations of related measures.

LINKING THROUGH THE SUPPLY CHAIN

Given the ever-increasing recognition of the role of supply chain partners in influencing behaviour and on-water operations there is also scope to consider how the supply chain can also influence effective management and monitoring of transshipment. For example, and as noted in the 2014 Review, ISSF Participating Companies have implemented four commitments that relate directly to transshipment operations, Conservation Measures 4.4(a-c). In summary, ISSF Participating Companies have committed to transactions only with purse seine vessels that transship in-port. Recognising that vessels can only abide by the relevant regulations, transactions with purse seine vessels transshipping at sea are permissible only if: 1). there are regulations, flag or coastal State or through the RFMO, that permit at-sea transshipment and that the catch is sampled with the data set to the relevant science committee, and 2). With purse seiners less than 600 metric tonnes operating solely in Papua New Guinea's archipelagic waters consistent with WCPFC and PNG regulations. In relation to longline vessels, the ISSF Participating Companies have sought to reinforce the commitment to 100% observer coverage of all transshipments on vessels greater than 20 metres LOA. Critical to the success of such measures is, in the case of the ISSF Participating Companies, is the associated auditing, or for other sectors of the supply chain, a high level of transparency about sourcing and buying policies and ideally full traceability from catch to consumer. Important is the recognition that the adoption of measures such as these seeks to normalise best practice behaviour of the fleets and to influence any future policy direction by sending a clear message to the industry and policy makers of supply chain expectations. Likewise, it is important that the other components of the supply chain adopt measures that support best practices. This may be actions such as supporting efforts to implement rigorous supply chain traceability via tools such as catch documentation schemes or by supporting States to more effectively manage their fleets.

Recommendations

In reviewing the current transshipment measures and considering the MCS measures that support them, it is clear that there are opportunities to strengthen the approach to transshipment management. There are three groups of recommendations: the first group of recommendations outline the best practices for the regulation of transshipment. These recommendations seek to amend the existing RFMO transshipment measures to address the fundamental weaknesses and gaps and are considered essential for the measures and consequently for the effective management of transshipment within the RFMOs management framework. The second group of recommendations relate to the integration of the transshipment measure within the other RFMO measures, for example, related to the IUU Fishing lists, flag State compliance, etc. Actioning these recommendations helps ensure that the other supporting MCS measures work in concert to provide transparency and traceability of fish into the supply chain. Ideally, these recommendations are actioned in the longer term. The third group of recommendations are asks and actions for all stakeholder groups. These recommendations acknowledge that all actors have a role to play in supporting continuous improvement of tuna fisheries.

Recommended Best Practices for Transshipment Management Measures

Recommendation 1: Define all relevant terms in the measures and ensure consistency of the terms with other measures and the treaty

- Key terms fundamental to the regulation of transshipment must be clearly defined in the measure. For example, terms such as 'fishing', 'fishing vessel', 'transshipment' such that it includes bunkering vessels, in-port, the various size specifications of vessels permitted to transship at-sea. Currently many of these terms are not defined in the measures (or the Convention) or are inconsistent with the broader international legislative framework. It is imperative that all relevant terms are defined to provide clarity and consistency among RFMO parties.

Recommendation 2: Ensure that the measure applies to all vessels

- Amend the measures to clearly articulate that the measure covers all vessels that are fishing outside their flag EEZ and specifically including those that fish in more than one EEZ and/or on the high seas.
- Amend the measures to prohibit a fishing vessel acting as both a fishing and receiving vessel on the same trip and adopt a rule requiring only one transshipment at any one time to aid the monitoring of transshipment in terms of the record and reporting.

Recommendation 3: RFMO measures must include the full geographical extend of the RFMO

- Amend the measures to remove any geographical exemptions thereby applying the measure equally throughout the RFMOs area of competence including EEZs.

As already noted, there is a real risk that in implementing strong measures in one jurisdiction alone, that the issue of illegal transshipment will simply move to the area(s) with less rigorous management and monitoring. As the Kroodsmas et al (2007) report shows, there are higher rates of transshipment in areas with less rigorous management and governance arrangements. As such it would be preferential if there was a global approach to transshipment management, or at minimum each RFMO was able to set management guidelines or standards for both in-port and at-sea transshipment across the entire treaty area.

- At minimum, ensure that the measure specifies that transshipment reports, detailing the species and quantities transhipped, are provided for all transshipments on the high seas and in EEZs, territorial seas and archipelagic waters.

Recommendation 4: Ensure the measure applies to all species under the remit of the RFMO, and those species caught in association with the fishery

- Amend the measures to clearly articulate it applies to all RFMO regulated species.
- Amend the measure to ensure that all species caught in association with these regulated fisheries are also included on the transshipment declaration.

Recommendation 5: Develop guidelines for the issuing of authorisations and notify RFMOs of these authorisations

- RFMOs should develop and implement an IUU fishing risk profile for fishing vessels that is used as the basis for permitting different types of transshipment: in-port, in-foreign ports, or at-sea.
- RFMOs must develop, adopt and implement guidelines for how vessels receive authorization to transship at sea.
 - These guidelines must include criteria defining under which circumstances a flag State can authorise its flag vessels to transship at-sea that is based on the vessels' IUU fishing risk profile, the timeframes for reporting these authorisation to the RFMO, the MCS measures (e.g. VMS, observer coverage, etc.) that the flag State has implemented for its fishing and receiving vessels to ensure compliance of its flag vessels, the data to be collected on each transshipment event (e.g. species, quantities, location, destination, etc.), and the timeframe for reporting this to both the flag State, RFMO Secretariat, coastal and port States.
- The RFMO must also implement a process to review flag State authorisations to provide oversight by the Commission of all authorisations for at-sea transshipment.
- RFMO measures must specify that all authorisations are retained onboard the vessel and made available to the observer for inspection.
- RFMOs must require that fishing and receiving vessels provide advanced notification of the intention to transship at-sea to the RFMO Secretariats, the flag States of both vessels, the port State and where relevant to the coastal State.
- Prohibit at-sea transshipment from non-member carrier and/or bunker vessels; that is require that all carrier and bunker vessels are flagged to contracting parties or cooperating non-contracting parties of the relevant RFMO.

There is no obligation for these non-parties to comply with the measures and the RFMO has no accountability mechanism for non-parties to treaties. It is imperative that there be no transshipment permitted between non-authorized vessels.

Recommendation 6: Consider new management measures, for example limiting the number of consecutive transshipments

- Amend the measure to limit the number of consecutive at-sea transshipments per vessel (or maximum days between port visits) such that the vessel must return to port at some prescribed minimum timeframe.

The implementation of a limit on the number of consecutive at-sea transshipments (maximum days between port visits/ at-sea), requires direct monitoring by the Secretariat, which equally relies on some basic MCS measures, the principle one being centralised VMS. A limit on the number of consecutive at-sea transshipments balances the economic profile of the longline fishery with the need for transparency, in addition it also couples as a mechanism to support flag State responsibility. By requiring a fishing vessel to return to port within a minimum prescribed timeframe there is scope to conduct not only the routine fisheries inspections, but to also update the vessel's details (including the infamous requirements for the submission of a recent colour photograph) and conduct inspections related to other laws for example

labour, safety and shipping laws. In addition, when combined with the risk profile of the vessel, it is likely that there would be a smaller number of vessels being monitored.

Recommendation 7: Notifications must be near real-time for all transshipments, including all steps of the transshipment event, particularly given the implementation of electronic reporting

- RFMOs must amend the existing measures to implement near real-time reporting for the submission of transshipment declarations and other data associated with each transshipment event.

As noted in the analysis, aspects of transshipment management are not subject to rigorous reporting timeframes, principally the transshipment declaration which the fishing vessel is only required to forward a copy of the declaration to its flag State within 15 days following the completion of the transshipment. This timeframe is no longer valid given the increased availability of electronic reporting, the relative IUU fishing risk of transshipment and the market calls for traceability. As such near real-time reporting (i.e. on the day of the transshipment) must be implemented for all transshipment events.

Recommendation 8: Explicitly link the transshipment regulations with relevant MCS measures to support identification of legal transshipment from illegal activities and strengthen the MCS requirements to take into account the IUU fishing risk associated with transshipment

- Amend the existing measures to provide **explicit links to all relevant MCS measures**.

It is important to specifically reference the rules and provisions of the primary MCS measures such that, in the context of transshipment, there is clarity that these MCS measures also automatically apply, *mutatis mutandis*, to transshipment. Some measures are already included (e.g. VMS, observer coverage), but as noted in Recommendation 3, they need to be effectively cross-referenced to ensure that the entirety of the primary MCS measure applies. In addition, there are other measures, such as the IUU Vessel List and flag State RFMO compliance monitoring programs that should be linked directly to the transshipment measure. For IUU vessel listing it is important, in deterring vessels from operating illegally, that there is an explicit link between suspected IUU fishing and inclusion on the draft IUU vessel list, whereby the remainder of the IUU vessel listing process would follow.

- Ensure the measure requires the use of **VMS and AIS** on all fishing and carrier vessels that are authorised to conduct at-sea transshipment and that the polling is provided to the Secretariat in near real-time.
- The measures must be amended to require strengthened the level of **observer coverage** on fishing and carrier vessels.
 - There must be an explicit requirement in the measure that all transshipment events, irrespective of their location, are observed, including carrier vessels.
 - There needs to be increased observer coverage to improve the transparency of longline fishing operations generally and specifically to monitor possible unauthorised transshipments between longline vessels.

The current observer coverage requirement for longline vessels is five percent in all tuna RFMOs, despite a proposal at the recent IATTC and ICCAT meeting to consider increasing the minimum observer coverage to 20% based on scientific advice of detecting rare events. Given the increasing use of electronic monitoring and when coupled with human observer coverage, there is less reason not to increase the level of observer coverage to 100% on all longline vessels as it is for purse seine vessels.

- For at-sea transshipment, human observer coverage is the preference, but if human observers are not possible/feasibly on some fishing or carrier vessels, then electronic monitoring must be mandatory before these vessels can be authorized to engage in transshipment.
- For in-port transshipment, observer coverage could be provided by the national port monitoring program.
- RFMO measures should implement observer training and standards for observers working on carrier vessels and/or covering transshipment activities with all observer reports sent directly to the Secretariat.

The observer programs currently in-place were developed and implemented for fishing activities. The nature of transshipment suggests that it would be advantageous to develop and implement standards and specific training for observers working on carrier vessels and/or covering transshipment events on board fishing vessels.

- The RFMO measures must have explicit **rules regarding the independence of the observer**.

The current measures suggest that the observer, 'to the extent possible, not be a member of the crew'. This is insufficient; observers must be 100% independent of both the vessels (i.e. not be part of the crew), nor associated with the company, plus they must be a national of a different flag to the flag of the vessels. These two actions will provide greater transparency on the fishing and transshipment activities.

- The measure must provide that all observer reports (daily, summaries, etc.) are provided to the RFMO Secretariat.

All observer reports must be sent to the Secretariat. This should be a duplicate such that the flag State and the Secretariat receive the reports directly from the observer. Observer reports should cover the transshipment event itself plus the offloading in port.

- RFMO measures should enable any identified infractions associated with transshipment to be reported directly to the flag State of both fishing and carrier vessels, the port State or coastal State if the transshipment took place in its EEZ, and to the RFMO Secretariat. If there is insufficient explanation/action by the flag States, the vessels involved (fishing and carrier) should be automatically included on the draft IUU vessel list of the RFMO and the case considered by the RFMO compliance committee.
- RFMO measures should enable Secretariat to integrate and cross-reference transshipment data with other relevant data sources (e.g. VMS/AIS, nominal catch and effort data, observer reports, etc.) to enable the identification of possible infractions.
- RFMOs should establish binding measures to ensure the safety of observers involved in transshipment.

Recommendation 9: Develop standards and harmonise transshipment declarations, including reporting timeframes

- Harmonise the required data fields and formats of the transshipment declaration form.
- Require that all transshipment declaration be transmitted from all fishing and carrier vessels to all relevant flag States, to the coastal and port States and to the RFMO Secretariat within a prescribed period of time, ideally near real-time.
- Require advanced notification of the intention to transship at-sea, particularly for high seas transshipments, and prescribe the required timeframe ensuring that it takes into account travel time of MCS assets. For example, the timeframe should be a minimum of 48 hours in advance of the intended transshipment.
- The measure should provide that transshipment declaration be made available to science and compliance subsidiary bodies of the RFMO.

Recommendation 10: Ensure that there is a publically searchable list of vessels authorised to conduct at-sea transshipment

- Ensure that the measure provides an explicit requirement for a publicly available list of all vessels that are authorised to transship at-sea.

Linking the authorisations to the public list of authorised vessels with a specific ability to search for those vessels that are permitted to transship at-sea provides clarity on the numbers of vessels undertaking at-sea transshipment. This is critical for supply chain traceability and transparency of transshipment for all stakeholders, and in particular for those States undertaking HSBI.

Recommendation 11: Clearly articulate the roles of the different actors, that is the flag, coastal and port States, the Secretariat, that are actively involved in the management of transshipment

- RFMO measure must clearly articulate the role of each actor, including who has primary responsibility at various stages, and how these roles come together at the Secretariat.
- The measure must also empower the Secretariat to act as an independent arbitrator of the compliance of both the fishing vessel and the flag States implementation of the measure. They also need to be empowered to develop information flow between actors (flag States, coastal States, port States and landing States) thereby providing oversight and cross-referencing data sources, particularly non-public domain data sources, to identify possible non-compliance with the measure.

This is a fundamental shift from the current transshipment measures, where the flag State has sole responsibility for the compliance of its vessels with little oversight. It must be recognised that the Secretariat is the sole actor with access to the full complement of MCS data and as such it stands that they alone are positions to provide independent verification of the compliance with the measure. This is not to diminish the role of the flag State which is enshrined in international legal frameworks, but to support their ability to identify suspicious and non-compliant behaviour and to provide the critical level of transparency desired by the supply chain. This also recognises that there are information flows from many actors, all which help to verify legal from illegal catches.

- RFMOs should also consider expanding, where relevant, the roles of the actors involved in the management of transshipment such that the full capacity of each actor to monitor legal transshipment and detect illegal fishing is realised, thereby strengthening transshipment management.

All actors need to be utilised to their full capacity in support of transshipment management. For the States (flag, coastal, port and landing), their role is to conduct inspections of the carrier and fishing vessels to verify the legality of the fish and to make this information available promptly to other relevant actors, and specifically to the Secretariat. This may need to be expanded to provide opportunities for coastal States to monitor activities inside their national waters and/or in the waters directly adjacent to their EEZ boundary.

Recommended Actions for Effective Implementation and Integration within the RFMO management system

Recommendation 12: Implement global standards for transshipment management that builds on the lessons from tuna and non-tuna RMFOs.

This recommendation recognises that the RFMO transshipment measures seek to address laundering of IUU fish broadly and from large-scale longline fishing vessels specifically. Given recognition of this risk and the global nature of tuna fishing, it is clear that there needs to be a more rigorous way to assess the relative risks of different vessels when authorising transshipment, whether in a foreign port or at-sea, and to manage for that risk profile. As identified earlier, it

would be preferential to develop a global risk profile, that is a single agreed risk profile of fishing vessels. This work could be undertaken, for example, by the FAO Committee on Fisheries or an independent panel of experts. The risk profile would identify vessels and/or activities that pose the greatest IUU risks. For example, Stateless and FoC vessels, vessel with minimal observer coverage, and/or vessels that are solely reporting to the flag State without any independent oversight. By identifying the higher risk vessels, it allows the RFMO to direct MCS measures and actions to these vessels, or indeed not allow these high-risk vessels to be authorised at all, or to restrict their transshipment activities to in-port transshipments only and subject to very high independent monitoring.

Furthermore, tuna and non-tuna RFMOs need to work collaborate to manage transshipment. Unauthorised vessels are likely to be servicing vessels fishing for tuna and non-tuna species in the same ocean. As such it is important to consider the lessons and approaches of different RFMOs, taking the best of each to develop a global approach, to the extent possible, to mitigate the risk of illegal transshipment. For example, transshipment may be more rigorously managed by merging SEAFOs prohibition on at-sea transshipment with CCAMLR's approach to exemptions for specific species and/or areas, plus coupling with MCS tools such as the CDS in CCAMLR and CCSBT, or some other combination of measures.

Recommendation 13: Integrate, cross reference and share data sources across RFMOs

- RFMOs should, not only, integrate transshipment declaration data with other data sources (e.g. reported nominal catch data, VMS or AIS position reports, observer reports, etc.) available to that RFMO, but RFMOs should also develop procedures to share data, including declarations, on transshipment activities and quantities and species transshipped with other RFMOs, particularly where the species transshipped may be under the jurisdiction of another RFMO.

Recommendation 14: Strengthen and cross-reference MCS measures associated with the management of transshipment

- Effective monitoring of transshipment requires the implementation of stronger MCS tools. The RFMO should strengthen all associated MCS tools used by the RFMO in the regulation of transshipment to remove loopholes and ensure that these measures are working in concert.

This review paper has attempted to demonstrate the links between rigorous transshipment management and effective MCS measures. The key MCS measures include: VMS, observer coverage, HSBI schemes, port State measures, statistical documentation schemes/CDS. It is imperative that all relevant MCS tools work in concert to enable illegal transshipments to be detected. In some RFMOs, there is a critical need to implement key measures, for example UNFSA prescribed HSBI, which has only been implemented specifically in WPCFC and SEAFO. Although the UNFSA measures are in place, clarification at each RFMO level is important. RFMO may also consider a requirement for AIS on all eligible vessels, particularly those capable of travelling vast distances as a secondary mechanism to verify the VMS reports particularly in instances of VMS malfunction and manual reporting.

In addition, there is a need to strengthen existing measures to ensure that they provide full coverage of all transshipments and close any existing loopholes. For example, applicable RFMOs should consider expanding the role of observers such that information collected by the observer can be used for compliance purposes (noting that the observer would not be an enforcement officer) and increasing the coverage from the minimum five percent on longline vessels. Likewise, there are potentially major loopholes related to the implementation of VMS in some RFMOs, and moreover, in most RFMOs the current VMS approach still relies solely on flag State monitoring without oversight from an independent third party such as is achieved through a centralised VMS approach.

Recommendation 15: Implement penalties for non-compliance

- RFMOs and national governments should adopt regulations for the application of strict penalties for non-compliance with transshipment measures. For example, prohibiting at-sea transshipment for some period of time or requiring 100% observer coverage on the fishing vessel or carrier vessel that has had the incident of non-compliance if that is not the coverage level already required by the RFMO.

Recommended Actions for the Other Actors

Recommendation 16: Leveraging Change through Supply Chain Linkages

- Exhort your influence throughout your supply chain. All supply chain actors, processors, retailers, buyers and fleets, have the ability to influence the actions on the water and the management direction taken at the RFMOs and thereby reducing the potential for IUU fish to enter the market. Specific actions that could be taken by the supply chain include:
 - Implement on-water, purchasing or sourcing requirements based on best practices throughout your supply chain (Table 10),
 - Support advocacy efforts to strengthen RFMO transshipment regulations plus the associated and dependent MCS regulations related to transshipment monitoring (Table 11),
 - Consider including these elements in any new or current FIPs, particularly in higher risk catch methods and/or regions, and
 - Continue to highlight the importance of effective transshipment management to national governments.

The ability of the supply chain to influence the behaviour and actions related to the management of fisheries has been seen time and time again; influencing transshipment regulations is no different. Actions of fleets, together with strong sourcing and buying policies that seek to implement a high level of transparency in the actions of the fishers on the water thereby normalising best practice behaviour are a good start. These actions can be complemented by requiring, through national government regulations, that fishers implement transparency tools and/or training. These policies also clearly articulate the position and acceptable minimum standards for the management of fisheries to regulators.

For those working in market outreach, there is a need to continue to create awareness about the links between transshipment and unsustainable fishing practices and other illegal activities such as labour abuses or slavery with your partners. Second, it is important to collaborate with others to develop, to the greatest extent possible, a common set of best practices and 'asks' of the supply chain.

Table 10: Suggested best practices for implementation by fleets and required by processors and retailers.

Fleets	Processors	Retailers
<ul style="list-style-type: none"> • Flag to a reputable State demonstrated by strong compliance assessment by the RFMOs, ensure all RFMO authorisations are accurate and up to date 	<ul style="list-style-type: none"> • Do not purchase fish that was transshipped to non-authorised and/or non-member carrier vessels. • Purchase only from vessels with 100% observer coverage, verified 	<ul style="list-style-type: none"> • Advocate for greater transparency on transshipment, including strengthening the supporting MCS measures (VMS, observer coverage, electronic monitoring and reporting, etc.)

<ul style="list-style-type: none"> • Only undertake transshipment with authorised carrier vessels that are flagged to RFMO members • Conduct all transshipments in accordance with the terms of the RFMO measure. • Implement near real-time reporting for all steps of the transshipment, particularly the transshipment declaration. • Carry both VMS and AIS, ensure that they are functional at all times and implement electronic monitoring and reporting. 	<p>with the transshipment declaration with the observer's signature.</p> <ul style="list-style-type: none"> • Require that the transshipment declaration is sent to the Secretariat, and both flag and coastal States (if relevant) as soon as the transshipment is complete • Require greater observer coverage on longline vessels, with either human or electronic monitoring. 	<ul style="list-style-type: none"> • Only purchase from those that can demonstrate traceability of the product, for example with observer coverage on both the carrier and the fishing vessel • Look to strengthen sourcing policies.
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Table 11: Key advocacy asks and management measures that could be used to leverage supply chain improvement in respect of transshipment.

Advocacy	Management Measures
<ul style="list-style-type: none"> • Implement a IUU fishing risk-based profile to be used to allow (or not) vessels to conduct at-sea transshipment • Implement global standards for the management of transshipment so that there are no areas of lower control that may become loopholes for illegal transshipment and entry of IUU fish into the market • That RFMOs adopt strict criteria for the authorisation of at-sea transshipment to be implemented by flag States with oversight by the Commission • Removal of all exemptions from the RFMO transshipment measures, ensuring the same rules apply throughout the entire RFMOs area of competence • Advocate for the RFMOs to thoroughly cross reference all MCS measures with the transshipment measure to remove any ambiguity and/or loopholes. Critical MCS measures include: VMS, Observer Coverage, port State measures, the record of fishing vessels, the IUU list and flag State compliance monitoring programs • Advocate for the development of specific observer training standards and protocols for observation of transshipment events and that this be adopted and implemented globally. 	<ul style="list-style-type: none"> • To improve labour and IUU fishing transparency, implement a policy that requires a limited number of at-sea transshipments before the vessel must contact in-port transshipment • Require that all vessels, fishing and carrier vessels, are authorised by the RFMO and to a flag State that is also a member or CNM of the RFMO and that this list be publically available • Require vessels to implement near real-time reporting throughout the transshipment events, including sending the reports directly to the relevant RFMO Secretariat • Require that longline vessels have greater observer coverage including with the use of electronic monitoring to the flag State authorities with a high level of the electronic data.

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