THE IMPRACTICABILITY EXEMPTION TO THE WCPFC'S PROHIBITION ON TRANSHIPMENT ON THE HIGH SEAS

BY

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Transhipment at sea allows fishing vessels to offload their catch on to carrier vessels, take on supplies, and continue fishing without leaving their fishing grounds. Worldwide, transhipment at sea, particularly on the high seas, poses serious problems because it is largely unmonitored. It is associated with higher levels of illegal, unreported, and unregulated fishing and has also been implicated in a range of criminal activities, including wildlife trafficking, drug trafficking, human smuggling, and more. For these reasons, the international community has sought to limit or ban transhipment at sea. The Western and Central Pacific Fisheries Commission (WCPFC) prohibits transhipment at sea by purse seine vessels. For longline and other non-purse seine vessels, however, it prohibits transhipment on the high seas unless a WCPFC member determines that transhipment in port is "impracticable" because it would cause "significant economic hardship" or require a vessel to make "significant and substantial changes to its historical mode of operation." Certain WCPFC members, however, treat this exemption as the rule. The evidence strongly indicates that transhipment in port would not cause significant economic hardship or a substantial change to a vessel's mode of operation. Moreover, market reasons do not suggest that transhipment at sea is needed to get valuable fish products to market.

This Article proposes replacement of the "impracticability" test with bright line rules—namely, a presumption against transhipment on the high seas. It allows, however, time-limited exemptions to ensure transhipment of ultra-low temperature frozen fish from a fishing vessel to a carrier vessel and for fresh fish but directs the Secretariat to study

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the circumstances under which these exemptions are needed; the exemptions expire unless these studies conclude that the exemptions are necessary. In addition, and in sharp contrast to the current regime, the exemptions must be approved by the WCPFC; they cannot be unilaterally established. The process that applies to exemptions for purse seine vessels would be applied to all other vessels. Moreover, to allow the WCPFC to review implementation of such plans to encourage transhipment in port, exemptions may not be granted for more than three years, although CCMs may apply for a new exemption at the end of the three years. Only through such a process can the WCPFC help minimize illegal, unreported, and unregulated fishing, prevent human rights abuses, and reduce opportunities for human trafficking and smuggling of guns, drugs, and wildlife. At the same time, it will help Pacific Island States develop their ports and economies.

I. INTRODUCTION

The Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western Pacific Ocean (WCPF Convention) establishes the Western and Central Pacific Fisheries Commission (WCPFC)[1] to manage tuna and other fish stocks in an area that covers roughly 20% of Earth's surface.[2] The WCPFC includes a mix of Pacific Island States that manage tuna stocks in their jurisdictional waters and rely on tuna as a major economic resource and distant water fishing nations that have historically had short-term economic interests in the fisheries.[3] As a consequence, the WCPFC has found it difficult to manage tuna and other species effectively, with the short-term profit motives often prevailing over a more conservation-oriented approach.[4] For example, Pacific bluefin tuna is now at 2.6% of historic spawning biomass[5] and stock levels for other tuna species appear headed in the same direction.[6]

Fisheries scientists tasked with providing advice to the WCPFC on maximum sustainable yields for fish catches have been challenged to provide this advice[7] for a number of reasons,[8] including "important gaps" in

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1 Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Sept. 5, 2000, 2275 U.N.T.S. 40532, https://perma.cc/5CAL-V54P [hereinafter WCPF Convention].

2 *Frequently Asked Questions and Brochures*, W. & CENT. PAC. FISHERIES COMM'N, https://perma.cc/Q9Y4-RSG4 (last updated Mar. 3, 2010).

3 Pepe Clarke, *Management of Tuna Fisheries in the Western and Central Pacific*, *in* SHARED RESOURCES: ISSUES OF GOVERNANCE 199, 203–04 (Sharelle Hart ed., 2008) (describing how Japan, Chinese Taipei, South Korea, and the United States—all distant water fishing nations—wanted the fish for commercial sale at large profit margins, whereas the Pacific island developing states wanted greater economic benefits from their tuna fisheries).

4 *See Frequently Asked Questions and Brochures*, *supra* note 2 ("The small island developing States of the Pacific have long held aspirations for developing their own domestic commercial fisheries and retaining an even greater share of the benefits from the multi-billion dollar fishery in their backyards. At the same time, the well-established fleets of the industrialized countries continue to grow and become more efficient with the advent of new and better fishing technology. Such growth in the number of fishing vessels in both small and large fleets, coupled with higher productivity in some fleets, poses real threats to the sustainability of WCPO tuna resources.").

5 W. AND CENT. PAC. FISHERIES COMM'N, TWELFTH REGULAR SESSION OF THE SCIENTIFIC COMMITTEE: SUMMARY REPORT, at xvii fig.7-5 (2016), https://perma.cc/C8EX-3HUY [hereinafter SC12 SUMMARY REPORT].

6 The WCPFC's Scientific Committee reported the following at its 2018 meeting with respect to bigeye tuna in the eastern Pacific Ocean (EPO):

> All the indicators, except catch, show strong trends over time, indicating increasing fishing mortality and reduced abundance, and are at, or above, their reference levels. The increasing number of sets and the decreasing mean weight of the fish in the catch suggests that the bigeye stock in the EPO is under increasing fishing pressure, and measures additional to the current seasonal closures, such as limits on the number of floating-object sets, are required.

W. AND CENT. PAC. FISHERIES COMM'N, FOURTEENTH REGULAR SESSION OF THE SCIENTIFIC COMMITTEE: SUMMARY REPORT ¶ 40 (2018), https://perma.cc/J5KQ-6R2G.

7 A regular feature of WCPFC meetings is a document, prepared by the WCPFC's science providers, called "data gaps." *See, e.g.*, Peter Williams, W. and Cent. Pac. Fisheries Comm'n,

catch, effort, and size composition data.[9] For example, the vessels of some members tranship fish on the high seas to carrier vessels (often referred to as refrigerated vessels or "reefers"), non-fishing vessels with massive capacity to move refrigerated or frozen fish from ocean to port.[10] Most regional fisheries management organizations (RFMOs), like the WCPFC, have identified transhipment at sea—both within waters under national jurisdiction and on the high seas—as a major concern because it is difficult, if not impossible, to monitor.[11] Without effective monitoring, transhipment provides easy opportunities to mix illegal or unreported catch with legal catch, thus allowing illegal operators to "launder" their product.[12] Transhipment at sea has also been implicated in a range of criminal activities, including wildlife trafficking, drug trafficking, human smuggling, and more.[13]

For these reasons, the international community has sought to limit or ban transhipment at sea.[14] The United Nations Fish Stocks Agreement requires flag states to regulate transhipment on the high seas to ensure that the effectiveness of conservation and management measures is not

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Scientific Data Available to the Western and Central Pacific Fisheries Commission, at 2, WCPFC-SC11-2015/ST WP-1 rev.1 (Aug. 5–13, 2015), https://perma.cc/C68V-VAW3; Peter Williams, W. and Cent. Pac. Fisheries Comm'n, *Scientific Data Available to the Western and Central Pacific Fisheries Commission*, at 2, WCPFC-SC10-2014/ST WP-1 (Aug. 6–14, 2014), https://perma.cc/H34G-F3U8.

8 For example, several WCPFC members refused to provide operational level data on fish catches. Chris Wold et al., *Bringing Pacific Bluefin Tuna Back from the Brink: Ensuring the Submission of Operational Data to the Western and Central Pacific Fisheries Commission*, 6 MICH. J. ENVTL. & ADMIN. L. 239, 258 (2016), https://perma.cc/87NK-AL9D. These members now appear to be providing that data moving forward but they still have not provided historical data on fish catches. Peter Williams, W. and Cent. Pac. Fisheries Comm'n, *Scientific Data Available to the Western and Central Pacific Fisheries Commission*, at 2, WCPFC-SC13-2017/ST-WP-01 (Aug. 9-17, 2017), https://perma.cc/WU2R-CGJG (stating that "[t]he continued provision of operational data for the Japanese, Chinese and Korean tuna fleets is also noteworthy"); *see also* Chris Wold et al., *Bringing Southern Bluefin Tuna Back from the Brink: Enhancing Understanding of the Scientific Process in the Western and Central Pacific Fisheries Commission*, 42 B.C. ENVTL. AFFAIRS L. REV. 347 (2015) (describing the conflicting scientific advice that the WCPFC receives from its two different science providers).

9 *See* Peter Williams, W. and Cent. Pac. Fisheries Comm'n, *Scientific Data Available to the Western and Central Pacific Fisheries Commission*, at 1, WCPFC-SC14-2018 ST-WP-01 rev. 1* (Aug. 13, 2018), https://perma.cc/3RJ9-A8C6.

10 LACEY MALARKY & BETH LOWELL, NO MORE HIDING AT SEA: TRANSSHIPPING EXPOSED 4 (2017), https://perma.cc/SFV2-KASF.

11 Christopher Ewell et al., *Potential Ecological and Social Benefits of a Moratorium on Transshipment on the High Sea*, 81 MARINE POL'Y 293, 296 (2017).

12 *See id.* at 294 fig.1, 295.

13 U.N. OFFICE ON DRUGS AND CRIME, TRANSNATIONAL ORGANIZED CRIME IN THE FISHING INDUSTRY: FOCUS ON TRAFFICKING IN PERSONS, SMUGGLING OF MIGRANTS, ILLICIT DRUGS TRAFFICKING 9–10 (2011), https://perma.cc/V5DM-5ZUN.

14 *See* U.N. Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, *Agreement for the Implementation of the Provisions of this United Nations Convention of the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, preamble ¶¶ 2, 5, 9, art. 18, U.N. Doc. A/Conf.164/37 (Dec. 11, 2001).

undermined.[15] The United Nations General Assembly has noted "the importance of adequately regulating, monitoring and controlling transshipment at sea to contribute to combating illegal, unreported and unregulated fishing activities."[16] It has called "upon States to take all measures necessary to ensure that vessels flying their flag do not engage in trans-shipment of fish caught by fishing vessels engaged in illegal, unreported, and unregulated [(IUU)] fishing" by monitoring, controlling, and preventing transhipment at sea.[17] The United Nations Food and Agriculture Organization (FAO) Technical Guidelines for Responsible Fisheries state that a high seas transhipment ban would be an effective means of limiting IUU fishing.[18]

The WCPF Convention and the WCPFC have also sought to limit transhipment at sea, but they have established different transhipment rules for purse seine vessels and other fishing vessels.[19] The WCPF Convention expressly prohibits transhipment on the high seas and in a WCPFC Member's territorial sea and exclusive economic zone by purse seine vessels operating within the WCPFC Convention Area.[20] For longliners and other vessels, however, the WCPF Convention only requires WCPFC members and cooperating non-members (collectively known as CCMs) to "encourage their vessels, to the extent practicable, to conduct transshipment in port."[21] Through a binding conservation and management measure (CMM)—CMM 2009–06—the WCPFC prohibits longliners and other vessels from transhipping on the high seas except where CCM has determined that "it is *impracticable* for certain vessels . . . to operate without being able to tranship on the high seas."[22] CMM 2009–06 requires WCPFC Members to make vessel-specific determinations as to impracticability and submit a plan detailing the steps being taken to encourage transhipment in port.[23] However, certain CCMs are not implementing either of these duties and transhipment on the high seas has become the norm rather than the exception.[24] Just under 55% of longline and other non-purse vessels are

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15 *Id.* at art. 18, ¶ 1.

16 G.A. Res. 70/75, ¶ 27 (Dec. 8, 2015).

17 *Id.* at ¶¶ 79, 99.

18 U.N. FOOD AND AGRIC. ORG., IMPLEMENTATION OF THE INTERNATIONAL PLAN OF ACTION TO PREVENT, DETER AND ELIMINATE ILLEGAL, UNREPORTED AND UNREGULATED FISHING: FAO TECHNICAL GUIDELINES FOR RESPONSIBLE FISHERIES NO. 9., at 29 (2002), https://perma.cc/7AP6-2TA2 [hereinafter TECHNICAL GUIDELINES FOR RESPONSIBLE FISHERIES].

19 *See* WCPF Convention, *supra* note 1, at art. 29.

20 *Id.* at art. 29, ¶ 5.

21 *Id.* at art. 29, ¶ 1. In addition, it requires transhipping in jurisdictional waters to take place in accordance with applicable national laws. *Id.* at art. 29, ¶ 2.

22 W. and Cent. Pac. Fisheries Comm'n, *Conservation and Management Measure on the Regulation of Transhipment*, at ¶ 34, CMM 2009–06 (Dec. 7-11, 2009), https://perma.cc/9H4J-RHVY (emphasis added) [hereinafter CMM 2009–06].

23 *Id.* at ¶ 35(a)(ii), (v).

24 W. and Cent. Pac. Fisheries Comm'n, *Guidelines for Determining Impracticability—High Seas Transshipment Activities*, WCPFC-TCC9-2013-17 (Aug. 30, 2013), https://perma.cc/N429-S24B [hereinafter *2013 Guidelines for Determining Impracticability*] (stating that Members have not complied with paragraph 35(a)(v)); W. and Cent. Pac. Fisheries Comm'n, *Development of*

registered to tranship on the high seas[25] and significant amounts of valuable tuna, including 42.2% of bigeye tuna, are transhipped on the highs seas.[26] Clearly, CMM 2009–06 is not effectively reducing transhipment on the high seas.

Moreover, the evidence indicates that transhipment in port is not impracticable. Port infrastructure throughout the region is sufficient to support and supply fishing vessels.[27] The purse seine fleet, which catches a significant amount of fish on the high seas, still manages to tranship in port.[28] At least three longline fleets—those of the European Union, Japan, and the United States—fish on the high seas hundreds of nautical miles from port, yet tranship all (E.U. and U.S.) or most (Japan) of their high seas catch in port.[29] Yet, a large number of high seas transhipments occur just outside the exclusive economic zones (EEZs) of CCMs,[30] about 200 nautical miles from a port,[31] suggesting that these vessels are able to travel a much shorter distance than the E.U., U.S., and Japanese longliners do to tranship in port. It also suggests that they are moving from waters under national jurisdiction to the high seas in order to avoid monitoring by coastal state CCMs. In fact, over the last two years, just three CCMs—China, Chinese Taipei, and Vanuatu—accounted for 84% and 89% of those transhipments in 2015 and 2016, respectively.[32] Moreover, costs associated with transhipment in port are insignificant in relation to the costs of operating a tuna vessel.[33] Fuel and labor costs do not fully explain the impracticability of transhipping in port as overcapacity may play a more significant role as evidenced by the profitability of the Japanese fleet.[34] Given the variables affecting

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Guidelines for High Seas Transshipment from Fishing Vessels Other than Purse Seine Vessels (CMM 2009–06 Para 37), at ¶ 10, WCPFC-TCC12-2016-15_rev2 (Aug. 25, 2016), https://perma.cc/6CZF-2TH5 [hereinafter *2016 Guidelines for High Seas Transhipment*] (stating that, since July 2014, determinations of impracticability must be implied from information in the WCPFC's Record of Fishing Vessels).

25 W. and Cent. Pac. Fisheries Comm'n, *Annual Report on WCPFC Transhipment Reporting with an Emphasis on High Seas Activities*, at ¶ 6, WCPFC-TCC-2018-RP03 (Sept. 14, 2018), https://perma.cc/XQR6-CZT6 [hereinafter *2018 Annual Report on WCPFC Transhipment Reporting*].

26 *Id.* at 10 tbl.4. This is an increase from 36.9% in 2016. W. and Cent. Pac. Fisheries Comm'n, *Annual Report on WCPFC Transshipment Reporting with an Emphasis on High Seas Activities*, at 7 tbl.3, WCPFC-TCC13-2017-RP03 (Sept. 20, 2017), https://perma.cc/V7TC-7GXP [hereinafter *2017 Annual Report on WCPFC Transhipment Reporting*].

27 *See infra* Part VI.B.

28 E-mail from Peter Williams, Oceanic Fisheries Programme (OFP), Secretariat of the Pacific Community (SPC), to Chris Wold, Attorney, Lewis & Clark International Environmental Law Project (Dec. 5, 2017) (on file with the author).

29 *See infra* Part III.C.

30 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at figs. 3 & 4; Francisco Blaha, *The Impracticability Exemption for Transhipment on the High Seas* (Sep. 22, 2018), https://perma.cc/7P6S-5J64.

31 The United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S 3, U.N. Doc. A/CONF.62/122 (entered into force Nov. 16, 1994), https://perma.cc/5G7T-W266.

32 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at tbl. 2.

33 *See infra* Part VI.C.

34 *See infra* Part VI.D.

profitability—operational costs, subsidies, over-capitalization—assessing whether transhipment in port causes "significant economic hardship" on a vessel-by-vessel basis is challenging. Even two conditions used to support exemptions from a high seas transhipment ban—the lack of ultra-low temperature (ULT) freezer capacity at some ports[35] and the need to get fresh fish to market—are questionable.

Thus, this Article proposes replacing the "impracticability" test with bright line rules. It begins with a presumption against transhipment on the high seas but allows, at least in the short term, vessel-specific exemptions to tranship ULT frozen fish from a fishing vessel to a carrier vessel with ULT freezer capacity and for fresh fish. However, it directs the WCPFC Secretariat to study whether ports have a shortage of ULT freezer capacity and whether carrier vessels can be placed in various ports to accept ULT frozen fish just as they would on the high seas. It also directs the Secretariat to identify the circumstances under which fresh fish needs to be transhipped in order to maintain a high-quality fish product. In addition, and in sharp contrast to the current regime, vessel-specific exemptions must be approved by the WCPFC; they cannot be unilaterally established. The abject failure of CCMs to comply with the WCPFC's information requirements, including the submission of a plan to encourage transhipment in port, indicates that unilateral decision making should be abandoned.[36] Moreover, to promote the implementation of a plan to encourage transhipment in port, exemptions may not be granted for more than three years. While a CCM may apply for a new exemption for a vessel at the end of the three years, presumably the WCPFC will want evidence that the CCM is implementing its plan before granting the exemption.

Part II of this Article describes the reasons why the international community has moved to limit transhipment at sea, particularly transhipment on the high seas. Part III reviews the rules for transhipment in the WCPFC as well as the current transhipment practices of CCMs. Part IV summarizes two previous Secretariat proposals to revise the impracticability standard as well as the transhipment rules of the four other tuna RFMOs. Part V discusses CCMs' views of the impracticability standard as well as their views of the two Secretariat proposals. Part VI evaluates a number of factors, including location of the catch, port infrastructure and fuel costs, and concludes that transhipment in port is not impracticable. Part VII then recommends the rejection of the impracticability standard and articulates a new test for granting time-limited, vessel-specific exemptions to a ban on high seas transhipment. Part VIII concludes that the WCPFC should adopt this new test to protect the region's most valuable economic resource, prevent IUU fishing, and minimize human rights abuses and illegal activity associated with transhipment on the high seas.

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35 *See infra* Part VI.B; *see also 2016 Guidelines for High Seas Transhipment*, *supra* note 24, at ¶ 19.

36 *See 2013 Guidelines for Determining Impracticability*, *supra* note 24.

II. THE MOVE TOWARDS TRANSHIPMENT IN PORT

Transhipment, as defined by the WCPFC, is the unloading of all or any of the fish aboard a fishing vessel to another fishing vessel, including support ships and carrier vessels, either at sea or in port.[37] Transhipment is a practice that allows fishing vessels to offload their catch, take on supplies, and continue fishing without leaving their fishing grounds.[38] Fishing vessels can thus stay at sea and continue fishing "for many years at a time."[39] Fishing vessels that tranship at sea likely save time and money by avoiding fuel costs and eliminating the time needed to transit to port for transhipment.[40] As Interpol reports, "[i]t makes commercial sense for [fishing vessels] to tranship and resupply near the fishing grounds, which may be mid-ocean. Many fishing vessels can be serviced by one reefer, and valuable fishing time is not lost by long journeys to designated transhipping sites near to shore."[41]

Nonetheless, transhipment at sea is increasingly viewed as a serious concern. Studies have found that transhipment at sea is associated with higher levels of IUU fishing.[42] In fact, four RFMOs have expressed "grave concern" that transhipment at sea facilitates organized tuna laundering and significant levels of IUU fishing.[43] But the problem is not unique to tuna fisheries.[44] In salmon and pollock fisheries, legal catches have been mixed with illegal catches during high seas transhipments.[45] Investigations of IUU fishing for toothfish have found that fishing operators tranship on the high seas to avoid the inevitable scrutiny that would occur during transhipment in port.[46] As with the salmon and pollock fisheries,[47] transhipment at sea of

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37 WCPF Convention, *supra* note 1, at art. I §§ (e), (h). The FAO similarly defines it 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." *Fishing Operations – 1*, FOOD & AGRIC. ORG. U.N., https://perma.cc/7B7G-DEZ2 (last visited Feb. 16, 2019).

38 Ewell et al., *supra* note 11, at 293.

39 U.N. OFFICE ON DRUGS AND CRIME, *supra* note 13, at 34.

40 Ewell et al., *supra* note 11, at 293.

41 INTERPOL, STUDY ON FISHERIES CRIME IN THE WEST AFRICAN COASTAL REGION 15 (Sept. 2014), https://perma.cc/W5SH-Z4G4.

42 GLOBAL FISHING WATCH, THE GLOBAL VIEW OF TRANSSHIPMENT: REVISED PRELIMINARY FINDINGS 2 (2017), https://perma.cc/H5XA-QRYR.

43 Indian Ocean Tuna Comm'n, *Resolution on Establishing a Programme for Transhipment by Large-Scale Fishing Vessels*, at preamble ¶ 2, Res. 17/06, (Oct. 10, 2017), https://perma.cc/BEM7-52JW [hereinafter IOTC Resolution 17/06]; Int'l Comm'n for the Conservation of Atl. Tunas, *Recommendation by ICCAT on Transhipment*, at 1, Res. 16-15, https://perma.cc/P5TJ-BGE7 [hereinafter ICCAT Recommendation 16-15]; Inter-Am. Tropical Tuna Comm'n., *Amendments to Resolution C-11-09 on Establishing a Program for Transshipments by Large-Scale Fishing Vessels*, at 1, Res. C-12-07, (June 25–29, 2012), https://perma.cc/759U-D6HD [hereinafter IATCC Resolution C-12-07]; The Comm'n for the Conservation of S. Bluefin Tuna, *Resolution on Establishing a Program for Transhipment by Large-Scale Fishing Vessels*, at 1, (Oct. 12, 2017), https://perma.cc/5AM7-YREC [hereinafter CCSBT Transhipment Resolution].

44 *See, e.g.*, Ganapathiraju Pramod et al., *Estimates of Illegal and Unreported Fish in Seafood Imports to the USA*, 48 MARINE POL'Y 102, 104 (2014).

45 *See id.* at 108–09.

46 U.N. OFFICE ON DRUGS AND CRIME, *supra* note 13, at 107

47 *See* Pramod et al., *supra* note 44, at 105–09.

toothfish allows fishers to launder illegally caught fish with legally caught fish in order to "circumvent quota and licensing regulations."[48] The United Nations Office on Drugs and Crime (UNODC) has concluded that fishers understand clearly that "transshipments are often hard to detect due to the lack of adequate surveillance and vessel tracking of fishing vessels" and that "this *modus operandi* is quite common" in fisheries other than the toothfish fishery.[49] More than just facilitating the evasion of rules, transhipments at sea have real conservation and human costs: transhipments to evade fisheries rules and other IUU activities "deplet[e] fish stocks [and] severely affect[] food security."[50]

Transhipment at sea also raises concerns about slavery, links to organized crime, and other criminal activity.[51] In fact, the UNODC has reported a litany of criminal activities associated with transhipment at sea.[52] Within the fishing industry, the "most prevalent" reason for human trafficking is forced labor,[53] although trafficking of women and children for prostitution also occurs.[54] The UNODC makes clear that transhipment at sea abets this crime: "[f]ishers report that they are traded from vessel to vessel whilst at sea to meet crewing needs."[55] Fishers also smuggle migrants as part of criminal networks, including in the Oceania region.[56] Fishing vessels and the fish processing industry are crucial components of drug smuggling, and transhipment facilitates that smuggling.[57] These activities are also frequently associated with corruption and money laundering.[58] As the UNODC reports, with the ability of fishing vessels to stay at sea for very long periods of time, transhipment allows these criminal activities to remain out of sight and undetected.[59] With almost 40% of the transhipments occurring on the high seas,[60] the scale of criminal activity, including IUU fishing,[61] is potentially huge.

Transhipment at sea is also associated with the use of carrier vessels flagged by states known to issue flags of convenience.[62] This should be a

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48 U.N. OFFICE ON DRUGS AND CRIME, *supra* note 13, at 107.

49 *Id.*

50 *See id.* at 97.

51 *Id.* at 9–10.

52 *Id.*

53 *Id.* at 23.

54 *Id.* Some of these concerns, such as prostitution and human trafficking, are associated not only with transhipment at sea. *See id.* The Port of Majuro in the Marshall Islands, for example, is known as "a destination for East Asian and Marshallese girls and women subjected to sex trafficking and a transit point for foreign fishermen subjected to labor trafficking." U.S. DEP'T. OF STATE, TRAFFICKING IN PERSONS REPORT 296 (2018), https://perma.cc/XR4B-UEEB.

55 U.N. OFFICE ON DRUGS AND CRIME, *supra* note 13, at 34.

56 *Id.* at 56, 70.

57 *Id.* at 86–88.

58 *Id.* at 97. UNODC also reported "that environmental crimes (including marine living resource crimes) are the third most frequent predicate of money laundering in the Pacific," although it did not draw a connection to transhipment at sea. *See id.* at 108.

59 *Id.* at 4; MALARKY & LOWELL, *supra* note 10, at 2.

60 MALARKY & LOWELL, *supra* note 10, at 2.

61 *Id.* at 1–2.

62 Ewell et al., *supra* note 11, at 296–97.

concern of the WCPFC, with a large number of carrier vessels flagged by Panama (115 vessels), Liberia (twenty-five vessels), and Vanuatu (four vessels).[63] These states have historically been associated with the issuance of flags of convenience.[64]

III. THE TRANSHIPMENT RULES OF THE WCPFC

In light of these concerns, RFMOs and other international bodies have been seeking to ban or strictly limit transhipment at sea.[65] The South East Atlantic Fisheries Organisation has completely banned transhipment at sea within its Convention Area.[66] However, the WCPFC, like other tuna RFMOs, has created a compromise that prohibits transhipment at sea for purse seine vessels while allowing it for other types of vessels.[67]

A. The WCPF Convention

The WCPF Convention endeavors to limit transhipment at sea by establishing both a general framework for transhipment and a specific prohibition against transhipment at sea by purse seine vessels.[68] The WCPF Convention's general framework requires CCMs to "encourage" their fishing vessels to tranship in port "to the extent practicable."[69] For any transhipment, including transhipment on the high seas, the WCPF Convention requires all vessels that tranship to comply with WCPFC procedures to verify the quantity and species being transhipped and allow full access by persons authorized by the WCPFC to gather any information to fully monitor the transhipment.[70] In addition, any transhipment in port or in waters under national jurisdiction must take place in accordance with applicable national laws.[71]

Moreover, the WCPF Convention prohibits, subject to exemptions that the WCPFC may adopt,[72] transhipment at sea by purse seine vessels

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63 *WCPFC Record of Fishing Vessels*, W. & CENT. PAC. FISHERIES COMM'N, https://perma.cc/83QH-B6CD (last visited Feb. 16, 2019). The WCPFC has recognized this issue and decided in 2017 to require CCMs to report observer coverage on carrier vessels. W. AND CENT. PAC. FISHERIES COMM'N, FOURTEENTH REGULAR SESSION OF THE COMMISSION: SUMMARY REPORT, at ¶ 387 (2018), https://perma.cc/4ECK-6GYV [hereinafter WCPFC14 SUMMARY REPORT].

64 Allan I. Mendelsohn, *Flags of Convenience: Aviation and Maritime*, 79 J. AIR L. & COM. 151, 157 (2014), https://perma.cc/K8R7-MEUU; *see also* Nathan A. Miller et al., *Identifying Global Patterns of Transshipment Behavior*, 5 FRONT. MAR. SCI., July 2018, at 5, https://perma.cc/HV2M-KKAM.

65 Kristina Boerder et al., *Global Hot Spots of Transshipment of Fish Catch at Sea*, 4 SCI. ADV. 1 (2018), https://perma.cc/5JKC-SFLU.

66 S. E. Atl. Fisheries Organisation, System of Observation, Inspection, Compliance and Enforcement, art. 5 (Dec. 2, 2016), https://perma.cc/5BEJ-HWV6.

67 *See* WCPF Convention, *supra* note 1, at art. 29.

68 *Id.*

69 *Id.* at art. 29(1).

70 *Id.* at art. 29(4), Annex III, art. 4.

71 *Id.* at art. 29(4).

72 *Id.* at art. 29(5).

operating anywhere in the Convention Area.[73] The WCPFC has adopted two exemptions to this prohibition.[74] The first exempts existing group seine operations composed of purse seine vessels with a fish hold capacity of 600 metric tons or less flagged to Papua New Guinea and Philippines.[75] The second exempted transhipment activities involving vessels flagged by New Zealand for one year provided that all fishing and transhipping activities take place within New Zealand waters.[76] No other exemption has been granted; regardless, the WCPFC may not grant an exemption for transhipment on the high seas by a purse seine vessel.[77]

B. CMM 2009–06

Due to the composition of the fleet and the nature of the catch, the WCPF Convention's prohibition against transhipment at sea by purse seiners affects a small number of registered vessels operating in the Convention Area (8%)[78] but a large percentage of the catch (69%).[79] Nonetheless, more than 3,000 longline vessels[80] and smaller numbers of pole-and-line vessels[81] registered to fish in the Convention Area are not subject to the prohibition against transhipment at sea.

Consequently, and consistent with its obligation to develop procedures relating to transhipment,[82] the WCPFC has adopted CMM 2009–06 to provide additional rules for transhipment at sea and on the high seas.[83] CMM 2009–06 sets out general policy considerations in the preamble[84] and, in the operative section, generally applicable provisions relating to observers, reporting, and documentation, as well as specific rules relating to longline and other non-purse seine vessels.[85]

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73 *Id.*

74 *See* CMM 2009–06, *supra* note 22, at ¶ 25.

75 CMM 2009–06, *supra* note 22, at ¶ 25(a).

76 *Id.* at ¶ 25(b). New Zealand sought the one-year exemption for its purse seine fleet due to the vastness of its EEZ—the fourth largest in the world—with fishing grounds up to 600 miles from the nearest port; it further assured the WCPFC that it had a comprehensive management and monitoring scheme for vessels operating within New Zealand's EEZ. Letter from Matthew Hopper, Reg'l Engagement Manager, Ministry of Fisheries, to Glenn Hurry, Exec. Dir., W. Cent. Pac. Fisheries Comm'n (Oct. 24, 2011), https://perma.cc/6VU3-PCPB. Satisfied with these reasons, and because the exemption was temporary, the WCPFC granted New Zealand an exemption. W. AND CENT. PAC. FISHERIES COMM'N, EIGHTH REGULAR SESSION: SUMMARY REPORT, at ¶ 284 (2012), https://perma.cc/89GR-64CR [hereinafter WCPFC8 SUMMARY REPORT].

77 CMM 2009–06, *supra* note 22, at ¶ 32.

78 Peter Williams et al., W. and Cent. Pac. Fisheries Comm'n, *Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2016*, at 4, 69, WCPFC-SC13-2017/GN-WP-01 (Aug. 9–17, 2017), https://perma.cc/SFS8-KHNV [hereinafter *2016 Overview of Tuna Fisheries in the Western and Central Pacific Ocean*].

79 *Id.* at 2.

80 *Id.* at 24.

81 *Id.* at 21.

82 WCPF Convention, *supra* note 1, at art. 29(3).

83 CMM 2009–06, *supra* note 22, at preamble ¶ 4.

84 *Id.* at preamble ¶¶ 1–2.

85 *Id.* at ¶¶ 11, 13, 15, Annex II.

The preamble begins by recognizing that transhipment at sea is a common global practice, but that "unregulated and unreported transhipment of catches of highly migratory fish stocks at sea, in particular on the high seas, contributes to distorted reporting of catches of such stocks and supports IUU fishing in the Convention Area."[86] Misreporting of catches supports IUU fishing and undermines effective conservation and management of fish stocks, which is "dependent on the provision of accurate reporting of catches of such stocks in the Convention Area."[87] Consequently, a goal of the WCPF Convention and CCM 2009–06 is to conduct transhipment in port to the extent practicable.[88] Doing so could also deliver important economic benefits to Small Island Development State (SIDS) CCMs.[89]

The generally applicable provisions require, for each transhipment, both the fishing vessel and the carrier vessel to complete a WCPFC Transhipment Declaration[90] that includes the names of the relevant vessels, the species and quantities transhipped, the location of the catches and transhipment, and other information.[91] CCMs responsible for the fishing and carrier vessels must submit the Transhipment Declaration to the WCPFC Executive Director within fifteen days of transhipment.[92]

In addition, any transhipment at sea requires an observer from the WCPFC Regional Observer Programme to observe the transhipment.[93] In the case of transhipments to vessels thirty-three meters in length or less that do not involve purse seine- or frozen longline-caught fish, the observer may be placed on either the offloading vessel or receiving vessel.[94] For transhipments involving troll caught or pole-and-line-caught fish not covered by the first condition and in all other cases, the observer must be deployed on the receiving vessel.[95] In all cases, observers must be given full access to both the fishing vessel and the receiving vessel.[96] The observer has the responsibility to confirm that the quantities of fish transhipped align with the quantities reported in the logsheets and WCPFC Transhipment Declaration.[97]

In CMM 2009–06, the WCPFC also establishes the conditions for transhipment at sea by non-purse seine fishing vessels—longline, troll, and pole-and-line fishing vessels.[98] For these vessels, transhipment in national waters must occur "in accordance with relevant domestic laws."[99] However,

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86 *Id.* at preamble ¶ 2.
87 CMM 2009–06, *supra* note 22, at preamble ¶ 1.
88 *See id.* at preamble ¶ 3.
89 *Id.* at preamble ¶ 7.
90 *Id.* at ¶ 10.
91 *Id.* at Annex 1.
92 *Id.* at ¶ 24.
93 *Id.* at ¶ 13.
94 *Id.* at ¶ 13(a).
95 *Id.* at ¶¶ 13(b), (c).
96 *Id.* at ¶ 15.
97 *Id.* at ¶ 14(b).
98 *Id.* at ¶ 33.
99 *Id.*

transhipment on the high seas is prohibited, "except where a CCM has determined . . . that it is impracticable for certain vessels . . . to operate without being able to tranship on the high seas."[100]

The WCPFC has established a two-part test for determining when transhipment in port is "impracticable."[101] First, the prohibition on high seas transhipment must create "significant economic hardship."[102] The relevant CCM must determine whether transhipment in port causes "significant economic hardship" based on "the cost that would be incurred to transship or land fish at feasible and allowable locations other than on the high seas, as compared to total operating costs, net revenues, or some other meaningful measure of costs and/or revenues."[103]

Second, the prohibition on high seas transhipment must cause the vessel to make "significant and substantial changes to its historical mode of operation."[104] The CMM does not provide guidance on how that determination should be made, leaving considerable discretion to individual CCMs. However, the test does not provide CCMs with unfettered discretion. Significantly, this test contemplates a vessel-by-vessel analysis rather than a fisheries-wide determination.[105] For example, it refers to "the vessel"; both the use of the definite article ("the") and the singular "vessel" indicate that the test must be applied to a specific vessel. The test also refers to historical modes of operation, an assessment which must be made for a particular vessel since each vessel will have a different history.[106] Each vessel, due to the location of where it fishes, the size of the vessel, the size of the crew, and other factors, will have different costs associated with transhipping in port, within national waters, or on the high seas.

CMM 2009–06 further contemplates a multilateral process for reducing and monitoring transhipment on the high seas.[107] While the relevant CCM may unilaterally determine when transhipment in port or in national waters is "impracticable," it must advise the WCPFC of its procedures for monitoring and verifying transhipments, indicate the vessels to which an "impracticability" finding applies, notify the Executive Director thirty-six hours prior to transhipment, and provide the Executive Director with the Transhipment Declaration within fifteen days of completion of each transhipment.[108] Moreover, each CCM allowing transhipment on the high seas must submit to the WCPFC a plan detailing the steps it is taking to encourage transhipment in port.[109]

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100 *Id.* at ¶ 34.
101 *See id.* at ¶ 37.
102 *Id.* at ¶ 37(a).
103 *Id.*
104 *Id.* at ¶ 37(b).
105 *See id.* at ¶ 38.
106 *Id.* at ¶ 37(b).
107 *Id.* at ¶ 35(a).
108 *Id.* at ¶¶ 34–35.
109 *Id.* at ¶ 35(a)(v).

Lastly, the guidelines embodied in this two-part test are intended to be interim guidelines.[110] CMM 2009–06 expressly calls for the Executive Director to propose new "guidelines for the determination of circumstances where it is impracticable for vessels to tranship in port or in waters under national jurisdiction."[111] It contemplates the adoption of new guidelines in 2012,[112] although that deadline has passed without the adoption of new guidelines.[113] Until new guidelines are adopted, the interim guidelines remain in place because CMM 2009–06 does not include an expiration date for the interim guidelines (i.e., a sunset clause).

C. Transhipment in Practice

Transhipment practice within the WCPFC varies by region and by CCM. Some CCMs, for example, prohibit transhipment at sea by all vessels in all circumstances, including the Parties to the Nauru Agreement (PNA).[114]

Other CCMs, however, are availing themselves of the exemption for transhipping at sea at a rate that indicates they are not making vessel-specific impracticability determinations.[115] In 2016, for example, CCMs authorized 2,223 of 4,468 (49.75%) WCPFC-registered vessels to tranship on the high seas, including 58.2% of all longline vessels, 88.2% of all pole-and-line vessels, and 42.8% of carrier and bunker vessels.[116] The percentage of vessels authorized to tranship on the high seas rose to 52% (2,431 out of 4,658 vessels) in 2017, with the majority of these vessels being longline vessels (1,831 vessels).[117]

The number of reported high seas transhipment events has fluctuated from year to year between 2011 to 2016, with a high of 1089 in 2017 and a low of 525 in 2012.[118] However, the number of high seas transhipments appears to be trending upwards.[119] One possible reason is the move of some fleets from fishing in EEZs to the high seas due to increasing costs of fishing

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110 *See id.* at ¶ 37.

111 W. AND CENT. PAC. FISHERIES COMM'N, TECHNICAL AND COMPLIANCE COMMITTEE: NINTH REGULAR SESSION, at ¶ 257 (2013), https://perma.cc/TH2F-H5TK [hereinafter TCC9 SUMMARY REPORT]; *see* CMM 2009–06, *supra* note 22, at ¶ 37.

112 CMM 2009–06, *supra* note 22, ¶ 37.

113 TCC9 SUMMARY REPORT, *supra* note 111, at ¶ 264 (showing deadline passed).

114 A Second Arrangement Implementing the Nauru Agreement Setting Forth Additional Terms and Conditions of access to the Fisheries Zones of the Parties, art. I, Sept. 19, 1990, https://perma.cc/469G-YT99. The Parties to the Nauru Agreement are Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands, and Tuvalu. *About Us*, PARTIES TO NAURU AGREEMENT, https://perma.cc/685C-WJEG (last visited Feb. 16, 2018).

115 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, at ¶¶ 3, 13, 15.

116 *Id.* at ¶ 15.

117 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at ¶ 4 & fig.1.

118 *Id.* at 6 tbl.1; *2018 Annual Report on WCPFC Transhipment Reporting*, *supra* note 25, at 10 tbl.5.

119 *See* Table 1.

in the EEZs of some Pacific Island States.[120] All reported high seas transhipments in 2015 and 2016 were conducted by fishing vessels registered to just five CCMs—China, Korea, Chinese Taipei, Vanuatu, and Japan—but the vessels of China, Chinese Taipei, and Vanuatu accounted for 84% and 89% of those transhipments in 2015 and 2016, respectively.[121] As twenty-two of the twenty-five registered longline vessels flagged by Vanuatu are owned by individuals or companies in China and Chinese Taipei,[122] it may be possible to attribute an even greater portion of high seas transhipments to those two CCMs.

Table 1. Number of Reported High Seas Transhipment: 2011–2017

Year	2011	2012	2013	2014	2015	2016	2017
Transhipments	680	525	593	552	754	948	1089

Table 2. Number of Reported High Seas Transhipment by CCM: 2015–2016

CCM	2015	2016
China	239	306
Japan	29	28
Korea (Republic of)	88	77
Chinese Taipei	186	289
Vanuatu	212	248
Total	**754**	**948**

High seas transhipments in 2016 accounted for a large percentage of the catches for certain species, including 25.3% of albacore, 36.9% of bigeye tuna, and 10% of yellowfin tuna.[123] The proportion of high seas catch relative to catch limits appears to be even greater when the small number of vessels transhipping on the high seas is considered: just 352 fishing vessels of the more than 3,100 non-purse seine fishing vessels registered to fish in the

120 PETER TERAWASI & CHRIS REID, PAC. ISLANDS FORUM FISHERIES AGENCY, ECONOMIC AND DEVELOPMENT INDICATORS AND STATISTICS: TUNA FISHERIES OF THE WESTERN AND CENTRAL PACIFIC OCEAN 2 (2016), https://perma.cc/N2YU-X64C (stating that the high seas purse seine catch in 2015 "was almost double that in 2014 and more than treble that between 2010 and 2013 as some fleets increased their high seas fishing likely, at least in part, in response to the increasing cost of access to PNA EEZs").

121 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at 6 tbl.2. Information for 2017 is provisional but is consistent with data for 2016, with China, Chinese Taipei, and Vanuatu accounting for 89% of transhipments. *2018 Annual Report on WCPFC Transhipment Reporting*, *supra* note 25, at 10 tbl.5.

122 *WCPFC Record of Fishing Vessels*, W. & CENT. PAC. FISHERIES COMM'N, https://perma.cc/2RA7-UZBS (last visited Feb. 16, 2019).

123 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at 7 tbl.3.

WCPFC Convention Area[124] accounted for the catch transhipped on the high seas in 2016.[125]

Yet, according to the annual reports of CCMs, some longline fleets rarely, if ever, tranship on the high seas. For example, twenty-three CCMs reported that vessels they flag fish on the high seas, but just seven of these CCMs (including carrier vessels from Liberia and Panama) reported that vessels they flag tranship on the high seas.[126] The 159 U.S. and 454 Japanese longline vessels rarely tranship on the high seas.[127] In fact, no U.S. vessels transhipped on the high seas in 2014, 2015, and 2016;[128] Japanese vessels reported just thirty-one, twenty-nine, and twenty-eight high seas transhipments in those years.[129] Significantly, these vessels typically fish far from the ports in which they land their fish. U.S. tuna longline vessels fish up to 1,000 nautical miles from Honolulu, although most trips are within 500 nautical miles, yet land their catch in Honolulu.[130] Japanese longline vessels focus their fishing in tropical waters easily more than 1,000 nautical miles from Japan,[131] yet land their catch back in Japan.[132]

IV. OTHER APPROACHES TO DEFINING "IMPRACTICABILITY" AND TO HIGH SEAS TRANSHIPMENT

CMM 2009–06 calls on the WCPFC's Executive Director to prepare new guidelines for determining the circumstances in which it is impracticable for certain vessels to tranship in port or in waters under national jurisdiction.[133] On two occasions, the Executive Director has submitted proposals for redefining "impracticability" that account for certain aspects of the fishery, but CCMs have rejected these proposals. The four other tuna RFMOs have taken a different approach. They simply grant large-scale longliners the option to tranship at sea provided that they meet certain conditions.

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124 *Vessels in the RFV by Vessel Type*, W. & CENT. PAC. FISHING COMMISSION, https://perma.cc/ZS75-GXRJ (last visited Feb. 16, 2019).

125 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at 6 tbl.1.

126 *Id.* at 3–4.

127 *Id.* at 2 fig.1, 6 tbl.2.

128 *Id.* at 6 tbl.2.

129 *Id.*

130 *See Overview of Fisheries—Pelagics*, W. PAC. REG'L FISHERY MGMT. COUNCIL, https://perma.cc/T5RY-EC2V (last visited Feb. 16, 2019).

131 *2016 Overview of Tuna Fisheries in the Western and Central Pacific Ocean*, *supra* note 78, at 24 (noting that the distant water longline vessels of Japan fish for bigeye and yellowfin tuna "primarily operate in the eastern tropical waters" of the WCPFC Convention Area).

132 LIAM CAMPLING ET AL., FORUM FISHERIES AGENCY, THE TUNA LONGLINE INDUSTRY IN THE WESTERN AND CENTRAL PACIFIC OCEAN AND ITS MARKET DYNAMICS 128 (2017), https://perma.cc/HV2K-JFYR ("Japanese [distant water] vessels operating in WCPO waters are authorized to undertake high seas transhipment, but typically return to Japanese ports at the end of a voyage and only occasionally tranship on the high seas."). About 85% of Japan's fishing in the WCPFC Convention Area occurs outside its EEZ. *Id.*

133 CMM 2009–06, *supra* note 22, at ¶ 37.

A. The Executive Director's 2013 Approach

With the adoption of CMM 2009–06, the WCPFC Secretariat began to receive notifications of high seas transhipments.[134] Surprised by the receipt of 878 notifications of high seas transhipments over a sixteen-month period between July 2010 and October 2011,[135] the Executive Director proposed new guidelines to the Technical and Compliance Committee (TCC) and its Ninth Regular Session (TCC9).[136]

The Executive Director contextualized his recommendations by setting out trends in international law and specific facts about the WCPFC fishery.[137] He reported, for example, that the FAO's Technical Guidelines for Responsible Fisheries provide that flag States should prevent their vessels from transhipping at sea without authorization, but that "[a]n even more effective approach would be to prohibit transshipment of fish at sea entirely, as some states have already done."[138]

With respect to the WCPFC fishery, he noted that purse seine vessels and some large longline operators conduct all transhipments in port,[139] calling into question the impracticability of transhipment in port.[140] He reported that transhipment data revealed that most transhipment occurs just beyond the EEZs of member countries—"not very far from port"[141]—again, calling into question whether it is really impracticable to tranship in port.[142] The Executive Director also noted that most transhipment at sea occurs near countries with well-established port and transport infrastructure,[143] indicating there are no physical barriers to transhipment in port,[144] and transhipment in port would provide "far stronger monitoring and surveillance" of fish catches and operations.[145]

Further, the Executive Director challenged longliners' economic argument that banning transhipment at sea would render longline fishing unviable.[146] He stated that, while transhipping frozen fish on the high seas might be more profitable, "it is arguable that there are no cases where it is impracticable to tranship frozen longline caught product in port."[147] Moreover, if profit margins are so small for longliners such that transhipping in port truly is impracticable, then "the likelihood of accurate and honest

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134 *See* WCPFC8 SUMMARY REPORT, *supra* note 76, at ¶ 282.

135 *Id.*

136 *2013 Guidelines for Determining Impracticability*, *supra* note 24.

137 *Id.* at 2.

138 *Id.* (citing TECHNICAL GUIDELINES FOR RESPONSIBLE FISHERIES, *supra* note 18, at 29).

139 *Id.* The Executive Director did not specifically identify the United States and Japan but those two CCMs were likely the focus of his comment. *See supra* Part III.C (describing high seas transhipments of U.S. and Japanese vessels).

140 *2013 Guidelines for Determining Impracticability*, *supra* note 24, at 7.

141 *Id.* at 3; *see also id.* at map 1.

142 *Id.* at 5.

143 *Id.* at 8.

144 *Id.*

145 *Id.*

146 *Id.* at 5.

147 *Id.*

reporting is small and they are more likely to undertake IUU activity than profitable operators."[148] However, he did indicate that transhipment at sea of sashimi-grade product "is one circumstance where it is impractical to transship in port."[149]

Lastly, the Executive Director concluded that no CCM has provided advice to the WCPFC on its procedures for monitoring and verification of transhipment on the high seas, as required by CMM 2009–06.[150] Moreover, "no CCM has provided the Secretariat with a plan detailing steps it has taken to encourage transshipping in port in the future," also required by CMM 2009–06.[151]

In light of these observations, the Executive Director proposed the following revisions to CMM 2009–06:

- Instead of a single observer to monitor the transhipment, an observer should be posted on both the fishing vessel and the carrier vessel for all transhipments at sea.[152]
- Transhipment at sea should occur only if the relevant CCM fully complies with the requirements to advise the WCPFC of its procedures for monitoring and verifying transhipments and submits a plan to the WCPFC detailing the steps it is taking to encourage transhipment in port.[153]
- Instead of relying on inferences of "significant economic hardship," a CCM must provide "documented evidence" to the Secretariat that it has complied with the "significant economic hardship" assessment of CCM 2009–06.[154] CMM 2009–06 does not currently require the submission of documented evidence prior to transhipment.
- Although not included in his written proposal, the Executive Director also indicated that transhipment in high seas pockets should be prohibited.[155]

As described in Part V, the TCC did not recommend that the WCPFC consider the proposal.[156]

148 *Id.*
149 *Id.*
150 *Id.*
151 *Id.*
152 *Id.* at 12.
153 *Id.*
154 *Id.* at 14–15.
155 In introducing his proposal at TCC9, the Executive Director invited TCC9 to consider "whether allowing transhipment from vessels other than purse seines is in the best interest of the Commission . . . [and] whether to prohibit transhipment in the high seas pockets." TCC9 SUMMARY REPORT, *supra* note 111, at ¶ 257.
156 *See infra* Part V.

B. The Secretariat's 2016 Approach

The Secretariat returned in 2016 with a new proposal that dramatically reshaped how to determine when transhipment in port might be impracticable.[157] The Secretariat acknowledged the challenges of assessing "significant economic hardship" and "significant and substantial changes" to a vessel's historical mode of operation because no criteria existed to make those determinations.[158] Nonetheless, the use of words like "significant" and "substantial" indicates a "high threshold" for allowing transhipment on the high seas.[159]

As with the 2013 proposal, the Secretariat made a number of observations to support its proposal.

- CCMs believe that the current interim guidelines are "unsatisfactory and not workable"[160] as indicated by their 1) failure to implement the guidelines; 2) failure to submit plans to encourage transhipment in port;[161] 3) view that the guidelines are subjective; and 4) view that transhipment at sea remains a common global practice.[162]
- The United Nations General Assembly adopted a resolution calling for effective control of transhipment to prevent, deter, and eliminate IUU fishing activities and the FAO indicated that prohibiting transhipment at sea was an effective way to accomplish that goal.[163]
- The number of vessels authorized to tranship at sea is rising.[164]
- CCMs were authorizing transhipment on the high seas not when it is "impracticable," that is, when it is "practically impossible . . . but rather when it is difficult."[165]
- Transferring an observer between vessels poses "significant observer safety issues and . . . inspection of documentation alone may not be sufficient for verification purposes."[166] Consequently, "monitoring of transhipments . . . remains a concern."[167]
- Allowing transhipment of shark products, including fins, undermines conservation efforts and may increase IUU fishing.[168]
- The large number of transhipments occurring on the high seas just outside the EEZs of CCMs, including just inside high seas pockets,

157 *See generally 2016 Guidelines for High Seas Transhipment*, *supra* note 24.
158 *Id.* at ¶ 9.
159 *Id.*
160 *Id.* at ¶ 12.
161 *Id.*
162 *Id.*
163 *Id.* at ¶ 14.
164 *Id.* at ¶ 10.
165 *Id.* at ¶ 16.
166 *Id.* at ¶ 17.
167 *Id.*
168 *Id.* at ¶ 21.

indicates that "vessels are transshipping in these areas for convenience" and to avoid monitoring by coastal states.[169]

Despite these arguments for more strictly regulating or prohibiting transhipment at sea, the Secretariat believed that certain vessels did need to tranship at sea to maintain high quality standards.[170] According to the Secretariat, "fresh fish from ice-chilled longliners, troll, and pole-and-line vessels" that supply fresh sashimi market may need to tranship at sea.[171] Similarly, vessels supplying high-grade ULT fish to sashimi markets may need to tranship at sea.[172] On the other hand, vessels supplying tuna for the cannery market do not.[173]

Based on these observations, the Secretariat proposed new guidelines for transhipment at sea that sought to balance the high threshold for determining when transhipment in port was impracticable with the characteristics of the fishing fleet and tuna markets.[174] New guidelines should also include criteria that "are easily measured, able to be monitored effectively . . . do not advantage inefficient operators . . . [and are] consistent with the objectives of ensuring effective conservation and management, obtaining fisheries data, monitoring compliance, and preventing IUU fishing."[175] Based on these observations and factors, the Secretariat proposed the following guidelines:

- CCMs may only make an "impracticability" finding to allow transhipment on the high seas for the following vessels:
    - Non-purse seine vessels using flake ice or refrigerated sea water and which tranship fresh fish to receiving vessels, where "fresh fish" means tuna or other highly migratory species that are alive, whole or dressed/gutted, but not further processed or frozen;
    - ULT freezer longline vessels which tranship tuna to ULT freezer carriers in order to supply the high-grade frozen sashimi market; and
    - Non-purse seine vessels which fish in WCPFC//Inter-American Tropical Tuna Commission (IATTC) overlap area, provided that the CCM flag State has notified the WCPFC and IATTC that it will apply IATTC resolutions in accordance with the WCPFC9 Decision on the WCPFC-IATTC Overlap Area.

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169 *Id.* at ¶ 22.

170 *Id.* at ¶ 19. Whether tuna caught on the high seas by longline vessels needs to be transhipped is unlikely in most cases. This is discussed *infra* at Part VI.E.

171 *Id.*

172 *Id.*

173 *Id.*

174 *Id.* at ¶ 24.

175 *Id.*

- Any transhipment on the high seas requires an observer deployed on both the fishing vessels and the receiving vessel.
- CCMs may not make an impracticability finding if the vessel is authorized to tranship shark products.
- CCMs must include in their annual reports information concerning their procedures for monitoring and verifying transhipments and a "plan detailing what steps it is taking to encourage transhipment to occur in port."[176]

As with the Executive Director's 2013 proposal,[177] the TCC did not forward this proposal to the WCPFC for consideration.[178]

C. Transhipment Rules of the Other Tuna RFMOs

The four other tuna RFMOs (t-RFMOs)—the Indian Ocean Tuna Commission (IOTC),[179] International Commission for the Conservation of Atlantic Tuna (ICCAT),[180] IATTC,[181] and Commission for the Conservation of Southern Bluefin Tuna (CCSBT)[182]—have virtually identical rules for addressing transhipment at sea.[183] They do not differ in any meaningful way,[184] but they differ markedly from the WCPFC's rules by not requiring a

176 *Id.* at 7.

177 *See supra* note 156 and accompanying text.

178 W. AND CENT. PAC. FISHERIES COMM'N, TWELFTH MEETING OF THE TECHNICAL AND COMPLIANCE COMMITTEE OF THE COMMISSION FOR THE CONSERVATION AND MANAGEMENT OF HIGHLY MIGRATORY FISH STOCKS IN THE WESTERN AND CENTRAL PACIFIC OCEAN: SUMMARY REPORT, at ¶¶ 273–75 (2016), https://perma.cc/RP39-8EFQ [hereinafter TCC12 SUMMARY REPORT].

179 The Indian Ocean Tuna Commission was established by the Agreement for the Establishment of the Indian Ocean Tuna Commission, art. I, Nov. 25, 1993 (entered into force Mar. 27, 1996), https://perma.cc/CB5M-GMSK [hereinafter IOTC Convention].

180 International Convention for the Conservation of Atlantic Tunas, art. 3, May 14, 1966, 20 U.S.T. 2887, 673 U.N.T.S. 63 (entered into force March 21, 1969) [hereinafter ICCAT].

181 Inter-American Tropical Tuna Convention, May 31, 1949, 1 U.S.T. 230, (entered into force Mar. 3, 1950) [hereinafter IATTC Convention]. The IATTC and its rules for fishing were updated in the Convention for Strengthening the Inter-American Tropical Tuna Convention, June 27, 2003, (entered into force on Aug. 27 2010) https://perma.cc/83J9-TUMK [hereinafter Antigua Convention].

182 Convention for the Conservation of Southern Bluefin Tuna, art. 6, May 10, 1993, 1819 U.N.T.S. 360 (entered into force May 20, 1994) [hereinafter CCSBT Convention].

183 *See* IOTC Resolution 17/06, *supra* note 43, at ¶¶ 1, 3 (creating a program to monitor large scale tuna vessels transshipment at sea and requiring all other transshipments be done at port); ICCAT Recommendation 16-15, *supra* note 43, at ¶ 1 (creating a program to monitor large scale tuna vessels transshipment at sea and requiring all other transshipments be done at port); IATTC Resolution C-12-07, *supra* note 43, at ¶¶ 1, 4 (creating a program to monitor large scale tuna vessels transshipment at sea and requiring all other transshipments be done at port); CCSBT Transhipment Resolution, *supra* note 43, at ¶ 2 (creating a program to monitor large scale tuna vessels transshipment at sea and requiring all other transshipments be done at port).

184 For a comprehensive assessment of the transhipment rules for these tuna RFMOs, as well as other RFMOs, see generally CLAIRE VAN DER GEEST, INT'L SEAFOOD SUSTAINABILITY FOUND., TRANSHIPMENT: STRENGTHENING TUNA RFMO TRANSSHIPMENT REGULATIONS (2018).

finding of impracticability.[185] Instead, large-scale longliners are allowed to tranship at sea, provided they meet certain conditions.[186]

These four t-RFMOs begin by expressing "grave concern" about the role of transhipment at sea in organized tuna laundering operations and IUU fishing.[187] Due to these concerns, some parties and cooperating non-parties (collectively referred to as CPCs) have proposed a complete ban on transhipment at sea.[188] Some tuna RFMOs prohibit transhipment at sea within their relevant Convention Areas for species subject to their management authority.[189] For example, the IOTC prohibits transhipment at sea for tuna and tuna-like species and sharks caught in association with such tuna species.[190] The CCSBT prohibits transhipment at sea for southern bluefin tuna.[191]

These prohibitions against transhipment at sea, however, include a significant exception: they do not apply to large-scale tuna longline vessels (LSTLVs)[192] or similar vessels that meet specific conditions.[193] In the IOTC, these vessels are presumably at least twenty-four meters long[194] whereas ICCAT specifically exempts large-scale pelagic longline vessels (LSPLVs)[195]—those vessels greater than twenty-four meters long.[196] The IATTC exempts large-scale tuna-fishing vessels—those "vessels fishing beyond areas of national jurisdiction or beyond CPC-controlled areas."[197] The CCSBT exempts large-scale tuna longline vessels, which are defined as "a tuna longline fishing vessel with Freezing Capacity."[198] "Freezing capacity" is then defined to mean a vessel with a freezer "capable of storing more than 500 kilograms of [southern bluefin tuna] at -30°C or below."[199]

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185 *See* WCPF Convention, *supra* note 1, at art. 29 (requiring practicability to prohibit at-sea transshipment).

186 *See, e.g.*, IOTC Resolution 17/06, *supra* note 43, at ¶ 3 (allowing at-sea transshipment only for largescale tuna longline fishing vessels).

187 IOTC Resolution 17/06, *supra* note 43, at preamble ¶¶ 1–2; ICCAT Recommendation 16-15, *supra* note 43, at preamble ¶¶ 1–2; IATTC Resolution C-12-07, *supra* note 43, at preamble ¶¶ 1–2; CCSBT Transhipment Resolution, *supra* note 43, at preamble ¶¶ 1–2.

188 *See* Indian Ocean Tuna Comm'n, *Report of the Twelfth Session of the Indian Ocean Tuna Commission*, at ¶ 50, IOTC 2008 S12 R[E] (June 7–11, 2008), https://perma.cc/AFV8-BD3Q (noting that France had proposed such a ban in three consecutive years).

189 *See, e.g.*, IOTC Resolution 17/06, *supra* note 43, at ¶¶ 1–2 (prohibiting at-sea transhipment of tuna species outside of monitoring program).

190 *Id.*; *see also* ICCAT Recommendation 16-15, *supra* note 43, at ¶ 1 (applying to "tuna and tuna-like species and other species caught in association with these species"); IATTC Resolution C-12-07, *supra* note 43, at ¶ 1 (applying to "tuna and tuna-like species").

191 *See* CCSBT Transhipment Resolution, *supra* note 43, at ¶ 2.

192 IOTC Resolution 17/06, *supra* note 43, at ¶¶ 3–4.

193 *Id.*

194 The IOTC does not expressly define LSTLVs, but the IOTC requires vessels at least twenty-four meters in length to be included in the IOTC's Record of Vessels. Indian Ocean Tuna Comm'n, *Resolution 15/04, Concerning the IOTC Record of Vessels Authorised to Operate in the IOTC Area of Competence*, at ¶ 1(a) (Sept. 10, 2015), https://perma.cc/A8AN-NG6J.

195 ICCAT Recommendation 16-15, *supra* note 43, at ¶ 1.

196 *Id.*

197 IATTC Resolution C-12-07, *supra* note 43, at ¶ 2 & n.1.

198 CCSBT Transhipment Resolution, *supra* note 43, at ¶ 1(a).

199 *Id.* at ¶ 1(c).

In addition to meeting these threshold conditions, a vessel may not tranship at sea unless a number of other conditions are met. First, a CPC must affirmatively authorize its LSTLVs to tranship at sea.[200] Second, at least twenty-four hours prior to any transhipment, the fishing vessel must notify the flag state of the intended transhipment.[201] In addition, where transhipment takes place in waters under the jurisdiction of a CPC, that CPC must provide authorization prior to the transhipment occurring.[202]

Third, any transhipment must be accompanied by a transhipment declaration that includes information about the carrier vessel, the fishing vessel, the location of the transhipment, and the species transhipped, including the weight of each species and the type of product (whole, gutted, etc.).[203] The fishing vessel has fifteen days to complete and submit the transhipment declaration to the flag state;[204] the master of the carrier vessel must complete and transmit the transhipment declaration to the relevant RFMO Secretariat and flag state within twenty-four hours after completing transhipment and to the competent authorities in the state where the fish will be landed at least forty-eight hours before landing.[205]

Fourth, the carrier vessel must be registered on the RFMO's Record of Carrier Vessels.[206] Carrier vessels must install and operate a vessel monitoring system[207] and have onboard an observer trained and chosen from the RFMO's Regional Observer Programme.[208] Without an observer, vessels are prohibited from commencing or continuing at-sea transhipment.[209]

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200 *Id.*; ICCAT Recommendation 16-15, *supra* note 43, at ¶ 15; IATTC Resolution C-12-07, *supra* note 43, at ¶ 12; CCSBT Transhipment Resolution, *supra* note 43, at ¶ 13.

201 IOTC Resolution 17/06, *supra* note 43, at ¶ 12; ICCAT Recommendation 16-15, *supra* note 43, at ¶ 16; IATTC Resolution C-12-07, *supra* note 43, at ¶ 14; CCSBT Transhipment Resolution, *supra* note 43, at ¶ 14.

202 IOTC Resolution 17/06, *supra* note 43, at ¶ 10; ICCAT Recommendation 16-15, *supra* note 43, at ¶ 14; IATTC Resolution C-12-07, *supra* note 43, at ¶ 11; CCSBT Transhipment Resolution, *supra* note 43, at ¶ 11.

203 IOTC Resolution 17/06, *supra* note 43, at ¶ 13, Annex II; ICCAT Recommendation 16-15, *supra* note 43, at ¶ 16, appendix 1; IATTC Resolution C-12-07, *supra* note 43, at ¶¶ 13–15, Annex 2; CCSBT Transhipment Resolution, *supra* note 43, at ¶ 15, Annex I.

204 IOTC Resolution 17/06, *supra* note 43, at ¶ 13; ICCAT Recommendation 16-15, *supra* note 43, at ¶ 16; IATTC Resolution C-12-07, *supra* note 43, at ¶ 13; CCSBT Transhipment Resolution, *supra* note 43, at ¶ 15.

205 IOTC Resolution 17/06, *supra* note 43, at ¶¶ 15–16; ICCAT Recommendation 16-15, *supra* note 43, at ¶¶ 17–18; IATTC Resolution C-12-07, *supra* note 43, at ¶¶ 14–15; CCSBT Transhipment Resolution, *supra* note 43, at ¶¶ 17–18.

206 IOTC Resolution 17/06, *supra* note 43, at ¶¶ 5–6; ICCAT Recommendation 16-15, *supra* note 43, at ¶¶ 6–8; IATTC Resolution C-12-07, *supra* note 43, at ¶¶ 6–8; CCSBT Transhipment Resolution, *supra* note 43, at ¶¶ 4–5.

207 IOTC Resolution 17/06, *supra* note 43, at ¶ 9; ICCAT Recommendation 16-15, *supra* note 43, at ¶ 11; IATTC Resolution C-12-07, *supra* note 43, at ¶ 10; CCSBT Transhipment Resolution, *supra* note 43, at ¶ 8.

208 IOTC Resolution 17/06, *supra* note 43, at ¶ 17; ICCAT Recommendation 16-15, *supra* note 43, at ¶ 19; IATTC Resolution C-12-07, *supra* note 43, at ¶ 16; CCSBT Transhipment Resolution, *supra* note 43, at ¶ 19.

209 IOTC Resolution 17/06, *supra* note 43, at ¶ 18; ICCAT Recommendation 16-15, *supra* note 43, at ¶ 20; IATTC Resolution C-12-07, *supra* note 43, at ¶ 17; CCSBT Transhipment Resolution, *supra* note 43, at ¶ 20.

Some of the t-RFMOs apply additional rules. For example, ICCAT bans transhipment at sea for Mediterranean swordfish[210] and bluefin tuna[211] without exceptions for LSPLVs. The IATTC's resolution "does not apply to troll vessels, pole-and-line vessels, or vessels engaged in the transhipment of fresh fish at sea."[212]

Based on these rules, transhipment at sea by longliners continues in large numbers, although by only a few fishing nations.[213] LSTLVs transhipped 1,215 times in 2016 (compared to 726 in 2015) within the IOTC area of competence,[214] the vast majority occurring on the high seas. LSTLVs from Chinese Taipei accounted for 67% of these transhipments "with Chinese, Seychellois, Japanese, Malaysian and Korean flagged vessels accounting for 11%, 11%, 6%, 4% and 1%, respectively"; Tanzania and Oman accounted for roughly 1%.[215] Fishing vessels transhipped to carrier vessels "predominantly flagged to Vanuatu (29%), Taiwan, Province of China (24%), and Malaysia (10%)," with other transhipments to vessels flagged by Korea, Seychelles, Panama, Liberia, Singapore, Kiribati and Japan.[216]

ICCAT reported 854 transhipments in 2016,[217] accounting for approximately 31,057 metric tons of tuna and tuna-like species.[218] Chinese Taipei, Japan, and China accounted for the vast majority of these transhipments (94%), with 384, 238, and 177 high seas transhipments, respectively.[219] ICCAT has registered 110 carrier vessels, forty-one of which are flagged by Panama and twenty-three by Liberia.[220]

The IATTC posted its highest number of at-sea transhipments in 2016 at 676; the previous high was 515 transhipments in 2011.[221] China accounted for almost half of the transhipments in 2016, with Chinese Taipei, Vanuatu,

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210 Int'l Comm'n for the Conservation of Atl. Tunas, *Recommendation by ICCAT Replacing the Recommendation [13-04] and Establishing a Multi-Annual Recovery Plan for Mediterranean Swordfish*, at ¶ 38, Doc. 16-05, https://perma.cc/RC8V-K528.

211 Int'l Comm'n for the Conservation of Atl. Tunas, *Recommendation by ICCAT Amending the Recommendation 13-07 by ICCAT to Establish a Multi-Annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean*, at ¶ 58, Doc. 14–04, https://perma.cc/E8TB-ANAE.

212 ICCAT Recommendation 16-15, *supra* note 43, at ¶ 3.

213 *See* MARINE RES. ASSESSMENT GRP. AND CAPFISH, A SUMMARY OF THE IOTC REGIONAL OBSERVER PROGRAMME DURING 2016: ANNUAL CONTRACTORS' REPORT 5 (2017), https://perma.cc/K2R8-CBK4.

214 *Id.*

215 *Id.* at 5.

216 *Id.*

217 Int'l Comm'n for the Conservation of Atl. Tunas, *Report on the Implementation of the ICCAT Regional Observer Programme (ROP) for Transhipment 2016/2017*, at 3 tbl.2 Doc. No. PWG-402/2017 (Nov. 15, 2017), https://perma.cc/2YWH-7885.

218 *Id.* at 3, tbl. 1.

219 *Id.* at 3, tbl.2. Vessels from Belize, Côte d'Ivoire, Korea, Senegal, and St. Vincent and the Grenadines accounted for the remaining high seas transhipments. *Id.*

220 VAN DER GEEST, *supra* note 184, at 60.

221 Inter-Am. Tropical Tuna Comm'n, *Implementation of the IATTC Regional Observer Program for Transshipment at Sea*, at 3 fig.3.2, Doc. No. IATTC-92–06 (July 24–28, 2017), https://perma.cc/YXK7-C7BB.

Japan, Panama, and Korea accounting for the remainder.[222] Of the seventy-three IATTC-registered carrier vessels, twenty-nine are flagged by Liberia and seventeen by Panama.[223]

V. THE CCM'S VIEWS OF "IMPRACTICABILITY"

CCMs have made various statements about whether transhipment in port is truly impracticable. As explained in Part VI.A, several CCMs believe that transhipment in port is impracticable based on the "significant economic hardship" element of the current two-part test.[224] PNA members and the European Union believe that transhipment in port is feasible.[225] No CCM has commented on the second element of the test—that transhipment in port would alter "historical modes of operation."

In the WCPFC's early years prior to adoption of CMM 2009–06, CCMs recommended harmonizing the WCPFC's transhipment rules with those of other RFMOs,[226] noting that other RFMOs prohibited transhipment at sea by purse seine vessels and established exemptions for non-purse seine vessels.[227] As noted in Part IV.C, the other tRFMOs continue to prohibit at-sea transhipment except by large scale longliners complying with a number of conditions.[228] In 2007, China, Korea, and Japan continued to urge consistency with the rules of other RFMOs, but other CCMs advocated for stricter transhipment rules as a means to combat IUU fishing that is facilitated by transhipment at sea; still, they acknowledged that legitimate transhipment was "an integral part of current fishing operations for some fleets."[229]

Based on a range of issues identified as important for a transhipment CMM,[230] the WCPFC at its fourth annual session (WCPFC4) in 2007

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222 *Id.* at 3 fig. 3.3.

223 *Vessel Database*, INTER-AM. TROPICAL TUNA COMM'N, https://perma.cc/ZV5H-6T2V (last updated Jan. 5, 2019).

224 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, at ¶¶ 8–9.

225 *See, e.g.*, TCC12 SUMMARY REPORT, *supra* note 178, at ¶¶ 250, 260 (2016).

226 *See* W. AND CENT. PAC. FISHERIES COMM'N, FIRST MEETING OF THE TECHNICAL AND COMPLIANCE COMMITTEE OF THE COMMISSION FOR THE CONSERVATION AND MANAGEMENT OF HIGHLY MIGRATORY FISH STOCKS IN THE WESTERN AND CENTRAL PACIFIC OCEAN: SUMMARY REPORT, at ¶ 46(a) (2005), https://perma.cc/QF2U-R2F2.

227 W. AND CENT. PAC. FISHERIES COMM'N, TECHNICAL AND COMPLIANCE COMMITTEE SECOND REGULAR SESSION: SUMMARY REPORT, at ¶ 80 (2006), https://perma.cc/VR54-PETX.

228 *See, e.g.*, IOTC Resolution 17/06, *supra* note 43, at ¶ 3 (allowing at-sea transhipment only for largescale tuna longline fishing vessels).

229 W. AND CENT. PAC. FISHERIES COMM'N, TECHNICAL AND COMPLIANCE COMMITTEE, THIRD REGULAR SESSION: SUMMARY REPORT, at ¶ 64 (2007), https://perma.cc/D6DW-XGKC.

230 *Id.* at ¶ 75 ("TCC agreed that these issues are important points to be considered in a measure concerning transhipment, including, *inter alia*: i. encouraging transhipment in port under Article 29 of the Convention; ii. allowance for transhipment outside the Convention Area and on the high seas under conditions that allow for appropriate monitoring of these activities; iii. allowance for carrier vessels to be flagged to non-CCMs; iv. allowance [of] continued operation of all legitimate transhipment activities; v. consideration of the necessary linkage with observer programmes; vi. development of registers and reporting requirements for carrier

undertook the first comprehensive discussion of drafting a transhipment CMM.[231] At the meeting, CCMs advocating for high seas transhipment stated that a requirement to tranship in port would not be "economically viable."[232] One CCM argued that the WCPF Convention does not call for an explicit ban on at-sea transhipment.[233] Korea expressed interest in developing monitoring measures for transhipment at sea, requesting consideration of cost effectiveness and practicability.[234] Those CCMs supporting a ban on high seas transhipment noted that transhipment monitoring with vessel monitoring systems and observers might not be effective and that transhipment in port would be economically beneficial to and promote the development of those ports.[235] The CCMs could not reach an agreement at WCPFC4.

The impracticability standard first emerged in 2008 at the WCPFC's fifth annual session on a proposal from the Republic of the Marshall Islands.[236] The proposal included the two-part test of "significant economic hardship" and "significant and substantial change to historical mode of operation" that was eventually included in CMM 2009–06,[237] although the significant economic hardship test was framed differently.[238] Regardless, CCMs did not comment on the proposed impracticability test until the following year at the Technical Compliance Committee's Fifth Regular Session;[239] the proposal included brackets around the draft CMM's language relating to significant

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vessels; vii. specification of the types and scale of vessels that will fall under the scheme; viii. consideration of the consistency with the provisions of other RFMOs.").

231 The draft, proposed by Australia and Japan, was modeled on the transhipment rules of other RFMOs. *See generally* W. and Cent. Pac. Fisheries Comm'n, *[Conservation and Management Measure Establishing] Procedures for Transhipments by Fishing Vessels*, WCPFC4–2007/DP03 Rev.2 (Nov. 27, 2007), https://perma.cc/RV8B-6B4M.

232 W. AND CENT. PAC. FISHERIES COMM'N, FOURTH REGULAR SESSION: SUMMARY REPORT ¶ 155 (2007), https://perma.cc/5FTU-5TLZ [hereinafter WCPFC4 SUMMARY REPORT].

233 *Id.* at ¶ 154

234 *Id.* at 95–96.

235 *Id.* at ¶ 156.

236 *See generally* W. and Cent. Pac. Fisheries Comm'n, *Draft Conservation and Management Measure on Regulation of Transhipment (Revision from WCPFC-TCC4-2008/DP-06)*, WCPFC5-2008/DP02 (Rev.3) (Dec. 12, 2008), https://perma.cc/L3XQ-FVJG.

237 *Id.* at § 2.2; *see* CMM 2009–06, *supra* note 22, at ¶ 37(a).

238 *Compare Draft Conservation and Management Measure on Regulation of Transhipment*, *supra* note 236, at § 2.2 ("The prohibition of transhipment in the high seas would cause a significant economic hardship, which would be assessed by comparing the average value of the catch to be transshipped with the average cost that would be incurred to move into waters under the national jurisdiction of a CCM[.]"), *with* CMM 2009–06, *supra* note 22, at ¶ 37(a) ("The prohibition of transhipment in the high seas would cause a significant economic hardship, which would be assessed *in terms of the cost that would be incurred to transship or land fish at feasible and allowable locations other than on the high seas, as compared to total operating costs, net revenues, or some other meaningful measure of costs and/or revenues*."(emphasis added)).

239 W. and Cent. Pac. Fisheries Comm'n, *Technical and Compliance Committee, Fifth Regular Session: Marshall Islands–Draft Conservation and Management Measure on Regulations of Transhipment*, at ¶ 36, WCPFC-TCC5-2009/DP-08 (Rev.3) (Oct. 5, 2009), https://perma.cc/XZ6N-458J.

economic hardship,[240] indicating that CCMs disagreed over how to make that determination.[241] Even so, the Republic of the Marshall Islands, now joined by Nauru, presented the WCPFC at its sixth annual session with a new draft, which modified the "significant economic hardship" test to its current form;[242] no discussion indicates why the change was made or agreed,[243] although one participant in the negotiations has indicated that the adopted text provided a better representation of what the test was trying to determine.[244]

Because the two-part impracticability test included in CMM 2009–06 was intended to be an interim test, CCMs have continued discussing it.[245] Discussions relating to the impracticability standard intensified in 2013 when the WCPFC's Executive Director called into question the need to tranship on the high seas except in very limited circumstances.[246] Under the Executive Director's proposal, if transhipment on the high seas were to occur, both the fishing vessel and the receiving vessel must have an observer on board.[247]

In reaction to the proposal, Fiji responded that transhipment in port is an economic hardship for fishing vessels far from port as it leads to lost fishing time and increased fuel costs.[248] The members of the Pacific Islands Forum Fisheries Agency (FFA) agreed with the Executive Director that observers should be on both vessels, but reiterated that all transhipments should take place within EEZs or in port where transhipment is easier to monitor.[249] Similarly, the European Union restated its support for a total ban on transhipment at sea, but agreed that if transhipment on the high seas occurs it should be strictly monitored with observers on both vessels.[250] However, other unidentified CCMs found the two-observer requirement "excessive and unnecessary."[251] The United States sought to move away from

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240 *Id.*

241 *See id.*

242 W. and Cent. Pac. Fisheries Comm'n, *Nauru and Marshall Islands - Draft Conservation and Management Measure on Regulation of Transhipment*, at ¶ 37(a), WCPFC6-2009/DP03 (Rev.2) (Dec. 7–11, 2009), https://perma.cc/PG9R-3VLN.

243 *See* W. AND CENT. PAC. FISHERIES COMM'N, SIXTH REGULAR SESSION, at ¶¶ 303–09 (2009), https://perma.cc/2ZDE-7VFB [hereinafter WCPFC6 SUMMARY REPORT].

244 Personal Communication from Wez Norris, Pontus Consulting, to Alfred Cook, WWF W. and Cent. Pac. Tuna Programme Manager (Aug. 27, 2018) (notes on file with Author). Previously, Mr. Norris was the Deputy Director-General, Pacific Islands Forum Fisheries Agency (FFA). Helen Grieg, *FFA Deputy Director General Appointment Announced*, FFA'S TUNAPACIFIC: FISHERIES NEWS & VIEWS (Dec. 10, 2017), https://perma.cc/XK3E-ZNX8.

245 *See, e.g.*, *2013 Guidelines for Determining Impracticability*, *supra* note 24.

246 *Id.* For more on the Executive Director's critique and his proposal, see *supra* Part IV.A.

247 *2013 Guidelines for Determining Impracticability*, *supra* note 24.

248 *Id.* Fiji transhipts tuna species at sea but within its archipelagic waters and territorial seas. MIKE A. MCCOY, A SURVEY OF TUNA TRANSSHIPMENT IN PACIFIC ISLAND COUNTRIES: OPPORTUNITIES FOR INCREASING BENEFITS AND IMPROVING MONITORING 27 (2012), https://perma.cc/G5EG-3C9N. Under paragraph 33 of CMM 2009–06, it is allowed to do so provided that it transhipts consistently with national law. CMM 2009–06, *supra* note 22, at ¶ 33.

249 TCC9 SUMMARY REPORT, *supra* note 111, at ¶¶ 258–59.

250 *Id.* at ¶ 260.

251 *Id.* at ¶ 261.

a consideration of economic hardship and toward a focus on whether the CCM has fully implemented the notice, reporting, and observer requirements for transhipment monitoring.[252] In this way, the WCPFC could tackle the root problem—IUU fishing.[253] Because CCMs could not reach agreement on a way forward, the TCC did not recommend consideration of the proposal at the WCPFC's next meeting.

The discussion of impracticability resumed at the WCPFC's twelfth annual session in 2015 when the Republic of Marshall Islands noted numerous problems associated with the impracticability provisions and proposed a ban on transhipment at sea.[254] The European Union supported further work to revise CMM 2009–06[255] and noted that the current two-part impracticability test imposes a "very high threshold" for transhipment at sea.[256] It further recognized that transhipment in port raised costs but vessels flagged by E.U. member states have shown that it is nonetheless feasible.[257] The FFA noted that the impracticability standards had not been implemented in good faith.[258] Japan opposed consideration of a high seas transhipment ban, arguing that transhipment at sea is "a common global practice;" it would, however, support greater traceability of transhipments.[259] Korea appeared to support greater observer coverage, noting that observers help ensure compliance, but it opposed a ban on transhipment at sea, which it said would create an "operational burden."[260] As a closing point, Korea stated its view that the WCPFC should "strike the balance between compliance, conservation and operational stability."[261] China added that transhipment in port "is practically difficult due to operational costs and conflicts between SIDS' domestic laws and WCPFC laws, especially around shark species."[262] China also reported that "some SIDS have increased their port costs" and that "many SIDS ports do not have facilities for handling deep frozen product."[263]

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252 *Id.* at ¶ 264.

253 *Id.*

254 W. AND CENT. PAC. FISHERIES COMM'N, TWELFTH REGULAR SESSION OF THE COMMISSION: SUMMARY REPORT ¶¶ 50, 698 (2015), https://perma.cc/QZ4Z-XUTT [hereinafter WCPFC12 SUMMARY REPORT].

255 *See id.* at ¶ 699.

256 *Id.* at ¶ 712.

257 *Id.*; *see also* TCC12 SUMMARY REPORT, *supra* note 178, at ¶ 250; W. AND CENT. PAC. FISHERIES COMM'N, THIRTEENTH REGULAR SESSION: SUMMARY REPORT ¶ 167 (2017) [hereinafter WCPFC13 SUMMARY REPORT].

258 WCPFC12 SUMMARY REPORT, *supra* note 254, at ¶ 701.

259 *Id.* at ¶ 703. Although Japan did not make a link to CMM 2009–06, the preamble of that CMM recognizes that "transhipment at sea is a common global practice, but that unregulated and unreported transhipment of catches of highly migratory fish stocks at sea, in particular on the high seas, contributes to distorted reporting of catches of such stocks and supports IUU fishing in the Convention Area." CMM 2009–06, *supra* note 22, at preamble, ¶ 2.

260 WCPFC12 SUMMARY REPORT, *supra* note 254, at ¶ 706.

261 *Id.*

262 *Id.* at ¶ 715.

263 *Id.*

This 2015 discussion led to the development of the Secretariat's 2016 transhipment proposal,[264] which replaced the "impracticability" test with bright line rules.[265] CCMs reacted to the Secretariat's proposal with a variety of views. Korea and China did not understand the need to ban transhipment on the high seas if the vessel is authorized to tranship sharks or shark fins;[266] China noted the increase in the price of port transhipment fees[267] and that some ports did not have sufficient frozen container capacity;[268] China and Chinese Taipei sought additional flexibility to tranship at sea for vessels catching albacore;[269] China feared that a requirement to tranship in port could cause its albacore tuna industry to collapse.[270] The PNA opposed transhipment on the high seas by ULT freezer longliners.[271]

On the other hand, the European Union, FFA, and PNA supported the shark provision;[272] the European Union acknowledged that some vessels carrying ULT fish may need to tranship on the high seas;[273] and the United States supported the approach overall, commenting that the "bright lines" established in the guidelines were a positive step forward.[274] The European Union concluded by lamenting that the "impracticability" exemption "has become the norm" regarding transhipment.[275]

VI. IS TRANSHIPMENT IN THE WCPFC CONVENTION AREA REALLY IMPRACTICABLE?

Globally, transhipment at sea, and in particular transhipment on the high seas, remains a common practice in the tuna RFMOs but, as recognized by CMM 2009–06, "contributes to distorted reporting of catches of such stocks and supports IUU fishing in the Convention Area" if it is unregulated.[276] In addition, globally, transhipment on the high seas is undertaken by relatively few fishing nations. Global trends are mirrored in the WCPFC. Many WCPFC vessels are authorized to tranship on the high seas and a significant percentage of the catch is transhipped on the high seas, but three CCMs are responsible for the vast majority of high seas transhipments.

Despite the goal to minimize, if not end, transhipment on the high seas, it appears that the WCPFC's impracticability exemption has become the rule. CCMs have failed to report on procedures to monitor high seas transhipment and failed to provide plans detailing how they are encouraging

264 *See id.* at ¶ 718.
265 For a discussion of the Secretariat's 2016 proposal, see *supra* Part IV.B.
266 TCC12 SUMMARY REPORT, *supra* note 178, at ¶¶ 247, 251.
267 *Id.* at ¶¶ 249, 262.
268 *Id.* at ¶ 262.
269 *Id.* at ¶¶ 249, 256.
270 *Id.* at ¶ 249.
271 *Id.* at ¶ 258.
272 *Id.* at ¶¶ 250, 254, 258.
273 *Id.* at ¶ 250.
274 *Id.* at ¶ 257.
275 WCPFC13 SUMMARY REPORT, *supra* note 257, at ¶ 167.
276 CMM 2009–06, *supra* note 22, at preamble, ¶ 2.

a reduction in transhipment on the high seas,[277] as required by CMM 2009–06.[278] CCMs are not making vessel-specific determinations of impracticability; instead, the Secretariat has reported that "determinations of impracticability made by individual CCMs are implied from information provided as part of the Record of Fishing Vessels."[279]

But is transhipment in port really impracticable? A review of relevant data concerning location of the catch, quality of port facilities, and fuel and other costs indicates that it is not.

A. Location and Composition of the Catch in the WCPFC Convention Area

A breakdown of where fish are caught by different gear types can help determine whether transhipment in port is impracticable. As the Secretariat noted in its 2013 proposal to redefine "impracticability," purse seine vessels are able to tranship their catch in port, as are many longline vessels.[280] In fact, purse seine vessels tranship in port even though they caught a significant portion of their catch (9%) on the high seas in 2016.[281] In addition, vessels used both gear types to catch a variety of tuna species both in EEZs and on the high seas.[282]

Table 3: Percentage of Total 2016 Catch in WCPFC Convention Area by Area[283]

Gear	EEZ	High Seas
Longline	68%	32%
Purse seine	91%	9%

277 *2013 Guidelines for Determining Impracticability*, *supra* note 24.
278 CMM 2009–06, *supra* note 22, at ¶ 35(a)(i)(v).
279 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, at ¶ 10.
280 *2013 Guidelines for Determining Impracticability*, *supra* note 24.
281 *See infra* Table 3.
282 *See infra* Table 4.
283 E-mail from Peter Williams, *supra* note 28.

Table 4: Percentage of Total 2016 Catch in WCPFC Convention Area by Area and Gear Type[284]

Longline		
Species	**EEZ**	**High Seas**
Skipjack	74.0%	26.0%
Yellowfin	75.5%	24.5%
Bigeye	60.7%	39.3%
Albacore	66.7%	33.3%

Purse seine		
Species	**EEZ**	**High Seas**
Skipjack	90.5%	9.5%
Yellowfin	94.4%	5.6%
Bigeye	88.2%	11.8%

Despite these similarities, longliners tend to fish further east in the WCPFC Convention Area than purse seine vessels,[285] with a significant amount of longline fishing occurring east of 160°W longitude.[286] However, the two fisheries have significant overlap in the area just east of 160°E longitude.[287] In fact, the Korean and Chinese Taipei purse seine fleets fish well east of 160°E longitude[288] yet transhipped those catches in port.

Consequently, distance from port and the species caught are unlikely, alone, to result in a finding of impracticability. Indeed, as noted earlier, the U.S. and Japanese longline fleets rarely tranship at sea and travel 500 nautical miles and even much greater distances to tranship in port.[289] Similarly, the E.U. longline fleet does not tranship at sea.[290] In addition,

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284 E-mail from Peter Williams, Oceanic Fisheries Programme (OFP), Secretariat of the Pacific Community (SPC), to Chris Wold, Attorney, Lewis & Clark International Environmental Law Project (Mar. 29, 2018) (on file with the author).

285 *2016 Overview of Tuna Fisheries in the Western and Central Pacific Ocean*, *supra* note 78, at figs. 11–19 (showing distribution of purse seine catch and effort); *Id.* at figs. 35–38 (showing distribution of longline catch and effort).

286 *Id.* at 26 fig.35.

287 *Id.* at 12 fig.18, 13 fig.19, 28 fig.38. Purse seine fishing effort moves back and forth across 160°E longitude depending on El Niño–Southern Oscillation Index (ENSO) conditions. The concentration of fishing effort west of 160°E longitude in 2016 is consistent with El Niño to neutral ENSO conditions. The previous two years saw more purse-seine effort east of 160°E longitude. *Id.* at 7.

288 *Id.* at 10 figs.14, 15.

289 *See supra* Part III.C.

290 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at 6 tbl.2 (showing no EU transhipments at sea). Three Spanish-flagged vessels—the "EU fleet"—fish primarily for swordfish in temperate waters south of 20° south—but primarily 30° south—and typically use Papeete for transhipment and resupplying, although they also use Auckland, Suva, and Taroa. European Union, *Annual Report to the Commission, Part 1: Information on Fisheries, Research, and Statistics*, at § 2.3, WCPFC-SC13-AR/CCM-05 (July 13, 2017), https://perma.cc/MDY5-NRJW [hereinafter European Union, *2017 Annual Report to the Commission, Part 1*].

several years of transhipment records show that vessels tend to tranship on the high seas just on the other side of a CCM's EEZ boundary,[291] suggesting that they are moving from areas under national jurisdiction to the high seas to transhipment.[292] Even if that is not true, the vessels are much closer to port than the U.S. and E.U. fleets and many vessels in the Japanese fleet that tranship in port.

B. Ports and Port Infrastructure

In general, port infrastructure in the region appears adequate to fulfill the needs of different vessel types fishing in the WCPFC Convention Area.[293] Although port facilities exist throughout the region, from Papeete in the southeastern corner of the Convention area to Rabaul in the northwestern corner, fishing vessels of the four primary WCPFC distant water fishing nations (DWFN)—China, Chinese Taipei, Japan, and Korea—use five ports far more (1,276 times) than any others: Pohnpei, Majuro, Rabaul, Honiara, and Tarawa.[294] Vessels from these four DWFNs also use Funafuti, Lae, Kiritimati, Noro, Suva, and Wewak, but these ports accounted for just sixty-four (5%) of the total transhipments in the ports of Pacific Island CCMs,[295] with Wewak accounting for thirty-eight (60%) of them.[296]

Other ports appear to be viable as they are used by some of the major fishing operators in the WCPFC Convention Area. For example, Luen Thai Fishing Venture Ltd (LTFV), one of the major Chinese tuna companies operating in the WCPFC Convention Area, uses Majuro, Kosrae, Pohnpei, Palau, and Samoa.[297] It uses the Pohnpei and Samoa ports for transhipping containers of frozen fish,[298] while it uses the other ports for buying fresh fish and for other fisheries purposes.[299] Spanish vessels tranship and resupply primarily in Papeete.[300] This indicates that these ports are viable for transhipment.

Vessel captains choose a port for transhipment based on a few factors. The most significant factor is proximity to the fishing grounds.[301] However, other factors play a role. For example, in 2012, Majuro, in the Republic of the Marshall Islands (RMI), hosted a disproportionate number of purse seine

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291 *See 2013 Guidelines for Determining Impracticability*, *supra* note 24; *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at 10 fig.3, 11 fig.4, 12 fig.5.

292 *See* Kristina Boerder et al., *Global Hot Spots of Transshipment of Fish Catch at Sea*, 4 SCI. ADVANCES, July 2018, at 1, 3, https://perma.cc/95ZW-AR64 (stating that "[f]or most of the time vessels spent fishing before meeting a reefer, they were located in EEZs").

293 *See 2013 Guidelines for Determining Impracticability*, *supra* note 24 (stating that WCPFC members "have well establish[ed] port and transport infrastructure and countries welcome the business associated with port based activities").

294 MCCOY, *supra* note 248, at 21–22.

295 *Id.* at 22.

296 *Id.*

297 CAMPLING ET AL., *supra* note 132, at 182.

298 *Id.* at 183.

299 *Id.* at 182–83.

300 European Union, *2017 Annual Report to the Commission, Part I*, *supra* note 290, at § 2.3.

301 MCCOY, *supra* note 248, at 22.

transhipments relative to fish caught in its EEZ.[302] Captains use Majuro because it established clear procedures before other ports in the region.[303] For example, it ensured that quarantine and other government personnel were at the ports at the same time as purse seine vessels.[304] It is not uncommon to have fifteen purse seine vessels in Majuro at the same time, which has led carrier vessels to congregate there as well.[305] In addition, even if the catch did not occur in RMI's EEZ, the fishing grounds are relatively close; in contrast, the longline fishing grounds are typically farther from Majuro, and captains therefore prefer to use other ports for transhipment.[306]

The size of the catch may also play a role in where transhipment occurs. As in Majuro, tuna trading companies place carrier vessels in locations that are convenient for purse seiners.[307] However, some purse seine vessels with smaller catches may not be able to compete for space on a carrier vessel with those vessels and companies with larger quantities of fish; they may need to travel to less convenient ports to transhipment.[308] Consequently, carrier vessels are less likely to wait in port for a longliner that may not come as it attempts to fill its hold. Thus, carrier vessels are more likely to meet longliners on the fishing grounds.[309] Of course, if longliners were required to tranship in port, carrier vessels may establish a presence in certain ports to take advantage of increased fish product from those vessels.[310]

The average catch per purse seine vessel prior to transhipment is typically going to be much larger due in part to the larger size of the vessels. For example, all vessels in the Korean purse seine fleet are 501 gross registered tonnage (GRT) or larger, while all of its longline vessels are between 201 and 500 GRT.[311] Japanese purse seine vessels show a greater range of sizes, but the majority (thirty-seven of sixty-nine) are larger than 200 GRT.[312] The average amount transhipped by Korea's purse seine vessels

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302 Majuro hosted 25% of DFWN transhipment operations, but only 17,500 tons of the reported transhipments were captured by distant water purse seine vessels in the entire Republic of Marshall Islands EEZ for that entire year. In contrast, Tarawa documented only 8% of transhipments occurring in port, even though there was a reported catch of 239,000 tons of fish originating from their EEZ. *Id.* at 23.

303 Interview with Mike McCoy, Associate, Gillett, Preston and Associates Inc. (Mar. 2018) (notes on file with author).

304 *Id.*

305 *Id.*

306 *Id.*

307 MCCOY, *supra* note 248, at 22.

308 *Id.* at 20.

309 Interview with Mike McCoy, *supra* note 303.

310 Personal Communication from Wez Norris, Pontus Consulting, to Alfred Cook, WWF Western and Central Pacific Tuna Programme Manager, *supra* note 244.

311 Republic of Korea, *2017 Annual Report to the Commission, Part I: Information on Fisheries, Research, and Statistics*, WCPFC-SC13-AR/CCM-12 (Rev01), at tbl.2 (2017), https://perma.cc/D2MM-PN4Q.

312 Japan, *Annual Report to the Commission: Part I: Information on Fisheries, Research, and Statistics*, WCPFC-SC13-AR/CCM-10 (Rev3), at 9, tbl. 1 (31 July 2017), https://perma.cc/M3LU-P7T6.

in 2016 was 788.62 metric tons per transhipment,[313] while its longline vessels transhipped a total of 14,425 metric tons of fish caught in the WCPFC Convention Area in 104 transactions, for 138.70 metric tons per transhipment.[314]

Korea's amount of fish transhipped from longliners appears to be much higher than average. Based on data from WCPFC transhipment forms, longline vessels transhipped on the high seas 948 times in 2016[315] and transhipped 23,640 metric tons of bigeye, 9,099 metric tons of yellowfin, and 18,135 metric tons of albacore for a total of 50,874 metric tons.[316] That equates to 53.66 metric tons of tuna per transhipment. When swordfish and other species are added to the catch, the total rises to 61,698 metric tons,[317] or 65.08 metric tons per transhipment. A review of Japan's data is roughly consistent with these averages: 44.07 metric tons per transhipment.[318]

A range of other factors may also lead captains to choose one port over another. These factors include the desire of fishermen to be paid.[319] A tuna trading company may have an office that can issue checks in one port but not another. In addition, fishermen may not get paid until they sell their fish; thus, they may decide to sell and tranship their catch whenever it is convenient, including on the high seas.[320] Other factors may include weather, the "need for international air travel connections" to replace crew, "past experiences in a port with government officials," the need to make repairs, and the availability of supplies, equipment, and other port amenities.[321]

Regardless of these factors that may lead to the preference of one port over another, a comparison of the five heavily used ports for transhipment with ten other ports spread throughout the WCPFC Convention Area[322] shows little difference in their physical attributes. In other words, the region has the port infrastructure to accommodate mandatory transhipment in port by non-purse seine vessels.

For example, all fifteen ports are of sufficient depth and size to allow transhipment by even the biggest longliners authorized to fish in the WCPFC Convention Area. Heavily used ports such as Pohnpei and Rabaul have

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313 Korea reported a total purse seine catch of 272,863.5 metric tons and 346 transhipments. Republic of Korea, *2017 Annual Report to the Commission, Part I*, *supra* note 311, at tbl.6.

314 *Id.*

315 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at 7 tbl.4.

316 *Id.* at 7 tbl.3.

317 *Id.* at 8 tbl.5.

318 Japan recorded 261 metric tons of fish transhipped on the high seas and twenty-eight high seas transhipments. Japan, *2017 Annual Report to the Commission, Part I*, *supra* note 312, at 35 tbl. 6-1, 36 tbl.6-2.

319 *See* MCCOY, *supra* note 248, at 22 ("The sale of the catch and the logistics involved may dictate use of another port.").

320 Interview with Mike McCoy, *supra* note 303.

321 MCCOY, *supra* note 248, at 23.

322 The following ten ports were assessed for this Article: Lae and Wewak in Papua New Guinea, Noro in the Solomon Islands, Kiritimati in Kiribati, Funafuti in Tuvalu, Apia in Samoa, Pago Pago in American Samoa, Suva and Lautoka in Fiji and Papeete in French Polynesia.

channels that are around 12.5 to 15.2 meters deep,[323] anchorages that are at least twenty-three meters deep,[324] and berths that are at least 122 meters.[325] The channels at Honiara, and Tarawa are not quite as deep, ranging from 6.4 to 9.1 meters,[326] but their berths—at a minimum of 150 meters—are long enough to accommodate tuna longliners.[327] The ten ports less frequently used have similar physical attributes. Channel depths range from a low of 4.9 meters in Funafuti[328] to fifty-five meters in Pago Pago[329] but with most between seven and twenty-three meters deep.[330] They can accommodate vessels that are at least 150 meters in length.[331]

The amenities of these ports also overlap significantly. For example, all have airports, although the frequency of flights varies from airport to airport. Kiritimati, for example, has very few flights, making it less desirable for switching crews.[332] The quality of waste disposal also varies from port to port. Pohnpei, for example, appears to have inadequate waste disposal facilities.[333]

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323 *Pohnpei Harbour: Port of Call*, WORLD PORT SOURCE, https://perma.cc/B3DP-HZSC (last visited Feb. 16, 2019) [hereinafter *Pohnpei Harbour*]; *Port of Rabaul: Port of Call*, WORLD PORT SOURCE, https://perma.cc/5LCQ-LNNE (last visited Feb. 16, 2019) [hereinafter *Port of Rabaul*]; *Port of Majuro: Port of Call*, WORLD PORT SOURCE, https://perma.cc/3QJT-BN4W (last visited Feb. 16, 2019) [hereinafter *Port of Majuro*].

324 *Pohnpei Harbour*, *supra* note 323; *Port of Rabaul*, *supra* note 323; *Port of Majuro*, *supra* note 323.

325 Shilpa Anjali & Camilla Trigona, *Micronesia Port of Pohnpei*, LOGISTICS CAPACITY ASSESSMENT, https://perma.cc/28EG-P6HA (last updated May 22, 2018); *Rabaul*, PNG PORTS CORP., https://perma.cc/N6BR-Q4A8 (last visited Feb. 16, 2019).

326 *Port of Honiara: Port of Call*, WORLD PORT SOURCE, https://perma.cc/A9T6-V8VC (last visited Feb. 16, 2019); *Port of Betio: Port of Call*, WORLD PORT SOURCE, https://perma.cc/P9PH-RZQP (last visited Feb. 16, 2019).

327 *See Solomon Islands Port of Honiara*, LOGISTICS CAPACITY ASSESSMENT, https://perma.cc/LUS5-WXJ4 (last visited Feb. 16, 2019); *Port of Betio: Port of Call*, *supra* note 326.

328 *Port of Funafuti: Port of Call*, WORLD PORT SOURCE, https://perma.cc/5K2W-P3PS (last visited Feb. 16, 2019).

329 *Port of Pago Pago, American Samoa*, DEP'T PORT ADMIN. AM. SAMOA GOV'T, https://perma.cc/VQ5H-R254 (last visited Feb. 16, 2019).

330 *See, e.g.*, *Port of Lae: Port of Call*, WORLD PORT SOURCE, https://perma.cc/GXR3-E7QL (last visited Feb. 16, 2019) (23.2 meters); *Port of Wewak: Port of Call*, WORLD PORT SOURCE, https://perma.cc/3G4T-YCBE (last visited Feb. 16, 2019) (7.1 to 9.1 meters); *Port of Noro, Solomon Islands*, PORTS.COM, https://perma.cc/Y37N-XV28 (last visited Feb. 16, 2019); *Port of Apia:Port of Call*, WORLD PORT SOURCE, https://perma.cc/2KFN-4G7F (last visited Feb. 16, 2019) (23.2 meters); *Port of Papeete: Port of Call*, WORLD PORT SOURCE, https://perma.cc/L929-PB56 (last visited Feb. 16, 2019) (11 to 12.2 meters).

331 *See, e.g.*, *Port of Funafuti: Port of Call*, *supra* note 328; *Port of Papeete: Port of Call*, *supra* note 330; *Port of Lautoka*, FIJI PORTS, https://perma.cc/8MPG-4XNM (last visited Feb. 16, 2019); *Port of Pago Pago, American Samoa*, *supra* note 329; *Port of Apia: Port of Call*, WORLD PORT SOURCE, https://perma.cc/8A8W-KZ4A (last visited Feb. 16, 2019); *Port of Noro, Solomon Islands*, *supra* note 330.

332 Interview with Mike McCoy, *supra* note 303.

333 *See* WORLD BANK, REPORT NO. PIDSIDSC23241, PROJECT INFORMATION DOCUMENT/INTEGRATED SAFEGUARDS DATA SHEET (PID/ISDS) 8 (2018) ("The near-shore water quality and ecosystems are degraded due to urban runoff, reclamations and sea walls, dredging, poor waste management and wastewater and ballast discharges from vessels at the docks.").

One important factor to consider is the availability of refrigerated containers. If a carrier vessel is not present to transhipping frozen fish, then the port must have refrigerated containers to store the fish until a vessel arrives to take the fish.[334] China has noted that some ports do not have adequate ULT facilities.[335] The Secretariat implicitly agreed with this assessment when it proposed an exemption to a high seas transhipment ban for ULT freezer longliners transhipping to ULT freezer carrier vessels.[336]

However, this may only represent current practices. Longline vessels are currently transhipping their ULT frozen fish to carrier vessels with ULT freezer capacity on the high seas.[337] If longliners are required to tranship in port, presumably these carrier vessels would move their operations to port. Questions remain as to the cost-effectiveness of this business model. For example, insufficient information exists to determine whether carrier vessels move great distances to accommodate longline vessels fishing in preferred areas or whether carrier vessels remain stationary and longline vessels travel to the carriers. Despite these questions, it would seem that this strategy is feasible in principle.

C. The Role of Transhipment Fees and Other Port Costs

In 2016, China complained that port costs were rising, reaching $300 per metric ton of fish, and creating an incentive to tranship on the high seas.[338] Although preceding China's concern by four years, a 2012 study[339] indicates that port costs are significantly lower than reported by China and not high enough to make transhipment in port economically infeasible—or in the words of CMM 2009–06—"impracticable."

That study estimated that the five Pacific Island States hosting the five major ports for purse seine transhipment received between $9.7 million and $15.9 million in 2010 in combined gross revenue resulting from purse seine vessels transhipping in port.[340] The average dollar amount per transhipment varied by port but ranged from a low of $2,600 to $6,700 in Rabaul to a high of $9,500 to $14,500 in Majuro.[341] In contrast, the Solomon Islands reported receiving gross revenue of approximately $750 from each longline in-port transhipment in 2011.[342]

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334 Interview with Mike McCoy, *supra* note 303.

335 TCC12 SUMMARY REPORT, *supra* note 178, at ¶ 715 (statement of China). The precise number of Chinese ULT-equipped vessels is not clear. China labels its longline vessels as "deep frozen." China, *Annual Report to the Commission: Part 1: Information on Fisheries, Research, and Statistics*, at § 2.1 tbl.4, WCPFC-SC14-AR/CCM-03 (Aug. 8–16, 2018), https://perma.cc/2QY9-KT6K. However, it does not distinguish between those that freeze to -55°C and -60°C which is considered ULT. CAMPLING ET AL., *supra* note 132, at 171.

336 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, at 7.

337 *See* MCCOY, *supra* note 248, at 63.

338 TCC12 SUMMARY REPORT, *supra* note 178, at ¶ 262.

339 MCCOY, *supra* note 248, at 1.

340 *Id.* at 39–40.

341 *Id.* at 39 tbl.5.

342 *Id.* at 40.

The 2012 study also broke down various costs by port. It reported that transhipment fees varied from port to port. For example, Majuro charged no transhipment fees, while the Solomon Islands charged $2 per ton, and RMI charged $1,500 for seiners with a fishery access license and $3,000 for seiners without a fishery access license for each transhipment.[343] Based on these data, the study estimated that the ports charging transhipment fees earned $1.45 million from those fees, or approximately $1.90 per metric ton transhipped.[344] It also concluded that the lack of transhipment fees does not provide a competitive advantage over Pacific Island States with transhipment fees.[345] This lack of competitive advantage reinforces the view that multiple factors contribute to the choice of port for transhipment.[346]

Similarly, ports charge a range of fees ($600 to $6,000 for a typical purse seine visit of five to ten days)[347] for a variety of government services, such as customs, quarantine, and anchorage, among other services.[348] Additional fees or costs may be associated with the purchase of goods and services, such as food and disposal services. These costs would presumably apply to transhipment at sea as well, as would fuel costs. Other fees, such as pilot fees, would not apply to transhipment at sea. Given the general applicability of most of these costs, they should not be considered for determining whether transhipment in port is impracticable.

This 2012 study was designed to determine the value of in-port transhipment to Pacific Island States. Based on the estimated revenue to the five ports included in the study, the average revenue earned per transhipment by a purse seine vessel was $8 to $13 per metric ton transhipped.[349] The corollary is that each transhipment costs a purse vessel $8 to $13 per metric ton transhipped—far lower than the figure provided by China.[350] As noted above, however, not all of the costs associated with the transhipment can be attributed to transhipping in port. Regardless of where a vessel tranships, it will need supplies. In any event, relative to wholesale prices of tuna that can easily reach $10,000 per metric ton in the longline fishery[351] and the overall costs of operating a tuna vessel, a charge of $8 to $13 per metric ton would appear to be small. Similarly, a longliner's total cost of $750 to transhipin port[352]—about $11.54 per metric ton[353]—would

343 *Id.* at 33 tbl.1. Pohnpei in FSM charged $1.37 per ton while Kiribati charged $3 per ton. *Id.*

344 *Id.* at 33–34.

345 *See id.* at 33.

346 *Id.*

347 *Id.* at 35 tbl.2.

348 *Id.* at 34–35.

349 *Id.* at 40.

350 WCPFC12 SUMMARY REPORT, *supra* note 5, at ¶ 262.

351 *See* Maggie Skirtun & Chris Reid, W. and Cent. Pac. Fisheries Comm'n, *Analyses and Projections of Economic Conditions in WCPO Fisheries*, at fig. 5-8, WCPFC-SC14-2018 ST-WP-04 Rev. 1 (Aug. 6, 2018), https://perma.cc/QHR3-JRFV (finding that fresh bigeye and yellowfin import prices into Japan were $10,158 and $9,491 in 2017 and that these amounts were 13% and 6% lower than the average price from 1999 to 2017).

352 MCCOY, *supra* note 248, at 40.

also appear to be negligible relative to the costs of operating a vessel. For context, in 2006, a WCPFC Scientific Committee paper noted that the purchase of electronic devices of $150,000 by a typical longliner in the late 1990s represented "a very small proportion of the value of a large longliner's annual landings (about $2.435 million per year)."[354]

D. Fuel, Labor, and Other Costs and Trends

The major fishing fleets in the Pacific have been declining, and they continue to decline despite the tremendous economic value of the fishery. For example, Japan's tuna fleet began to shrink in the mid-1980s, turning Japan into a net importer of tuna, due to "rising competition from Taiwan, Korea, and other fleets and also because of soaring labor and fuel costs, declining catch rates, and shortage of labor supply."[355] Longline fleets overall—particularly those from Chinese Taipei, Korea, and Japan—are projected to continue shrinking due to smaller catches, higher fuel costs, and higher labor costs,[356] as well as overcapacity of the fishery.[357]

Determining the relative influence of each factor—competition, catch size, overcapacity, labor costs, and fuel costs—is difficult because each factor plays a role. This complexity complicates a determination of whether transhipment in port is impracticable. For example, if fuel costs are the driving factor, then one might be able to legitimately claim that transhipment in port imposes substantial economic costs on a vessel, making transhipment in port impracticable. However, if the major driver is overcapacity, then the influence of fuel prices or labor costs on profitability would not be a compelling determinant of whether transhipment in port is impracticable. Under this latter scenario, fuel prices might merely be the "straw that broke the camel's back" by which one action causes an unpredictably large or extreme reaction because of the cumulative effect of other actions.[358]

Undeniably, the size of the fleets of Chinese Taipei, Japan, and Korea have declined. Although Japan currently has 442 longliners registered to fish

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353 If the average longline transhipment includes 65.08 metric tons of tuna and other fish caught in the WCPFC Convention Area, then a total transhipment cost of $750 equates to $11.54 per ton. *See supra* note 351 and accompanying text.

354 Peter Ward & Sheree Hindmarsh, *An Overview of Historical Changes in the Fishing Gear and Practices of Pelagic Longliners*, WCPFC-SC2-2006/FT WP–1, 18 (2006), https://perma.cc/X8GH-YNC2.

355 Harry N. Scheiber et al., *Ocean Tuna Fisheries, East Asian Rivalries, and International Regulation: Japanese Policies and the Overcapacity/IUU Fishing Conundrum*, 30 U. HAW. L. REV. 97, 113 (2007).

356 CAMPLING ET AL., *supra* note 132, at 12–13, 130.

357 *See* Enric Sala et al., *The Economics of Fishing the High Seas*, 4 SCI. ADVANCES, June 2018, at 7 ("The lack of profitability for China and Taiwan may be related to massive overcapacity.").

358 *See Straw that Broke the Camel's Back and the Last Straw*, GRAMMARIST, https://perma.cc/5UTF-KJ4J (last visited Feb. 16, 2019).

in the WCPFC Convention Area,[359] only about half of these are distant water vessels; the others fish in coastal waters.[360] This number represents a significant decline from Japan's 1963 peak of 1,901 distant waters vessels and 1972 peak of 940 small offshore vessels.[361] The fleet of Chinese Taipei registered to fish in the WCPFC Convention Area has declined from more than 2,238 in 1997[362] to fewer than 1,100 in 2018.[363]

The number of Korean vessels peaked at 220 in 1991 before dropping to roughly 125 between 2011 and 2013.[364] It currently has 116 longliners registered to fish in the WCPFC Convention Area.[365] In contrast, the Chinese fleet has grown. The Chinese longline fleet fishing in the WCPFC Convention Area grew dramatically from 219 to 429 vessels between 2009 and 2015[366] and now consists of 499 vessels.[367]

The decline of the three Asian fleets does not necessarily indicate that the fishery is in economic trouble because teasing out the relative adverse effects of costs, declining fish stocks, and competition is complex and difficult. For example, total catches of tuna species in the WCPFC Convention Area have increased throughout the 1980s and peaked in 2014.[368] The catch more than tripled between 1982 and 2016.[369] The vast majority of the additional catch was captured by purse seine vessels[370] for skipjack tuna.[371] Still, the longline catch has "steadily increased" since the 1950s except for a dip in the 1980s.[372] Nonetheless, catches by Japan's distant water and offshore longline fleets have declined from 20,725 metric tons in 2004 to 5,746 metric tons in 2016;[373] catches by Chinese Taipei vessels have declined from 16,888 metric tons in 2004 to 4,751 metric tons in 2016; Korean catches have also declined.[374]

These catch declines correspond to a decline in vessels fishing in the Convention Area, but they also correspond to increased competition from vessels flagged by Pacific Island States. Fiji, French Polynesia, Vanuatu, and others have developed longline fleets[375] that did not exist in the 1980s or even

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359 *Vessels in the RFV by Vessel Type*, W. & CENT. PAC. FISHERIES COMMISSION, https://perma.cc/F2X7-W55G (last visited Feb. 16, 2019).

360 CAMPLING ET AL., *supra* note 132, at 124.

361 *Id.* at 125.

362 *Id.* at 139.

363 *See Vessels in the RFV by Vessel Type*, *supra* note 359.

364 CAMPLING ET AL., *supra* note 132, at 154.

365 *See Vessels in the RFV by Vessel Type*, *supra* note 359.

366 CAMPLING ET AL., *supra* note 132, at 167.

367 *See Vessels in the RFV by Vessel Type*, *supra* note 359.

368 *2016 Overview of Tuna Fisheries in the Western and Central Pacific Ocean*, *supra* note 78, at 2.

369 *See id.* at 2 fig.2.

370 *Id.*

371 *Id.* at 2 fig.3.

372 *Id.* at 25 & fig.34.

373 *Id.* at 25.

374 *Id.*

375 *See Vessels in the RFV by Vessel Type*, *supra* note 359.

a decade ago.[376] Because Vanuatu's fleet is primarily owned by nationals and companies of China and Chinese Taipei,[377] one might reasonably attribute the Vanuatuan catch to China and Chinese Taipei, thereby shrinking the catch and vessel declines experienced by Chinese Taipei.

With regard to labor costs, vessel owners are clearly turning to lower-cost sources of labor to manage operational costs. The influence of labor costs on total operational costs can be seen in the change in the nationality of crews. Although the vast majority of longline vessels are flagged by Japan, Korea, and Chinese Taipei, the nationality of the crews on these vessels is primarily Indonesian, Filipino, and Vietnamese,[378] and a growing number of Chinese vessels are crewed by Indonesians and Filipinos.[379] Korean vessel owners increasingly turn to Nepalis for crew.[380] Whether this indicates rising labor costs or simply an urge to increase profitability is not known. For example, Chinese vessels apparently pay crew the equivalent of $400 per month (U.S.), less than the $450 per month (U.S.) paid to women working in factories and living in dorms.[381] Given the isolation and danger of working on a longline vessel, any claim that these wages constitute sufficient pay is questionable.[382]

The reduction in the three Asian fleets may simply be a market correction to over-capitalization and excessive fleet capacity. In fact, a June 2018 study concluded that the fleets of China and Chinese Taipei are unprofitable and that "massive overcapacity" may be the reason.[383] Japan's fleet, in contrast, is profitable; that profitability may be associated with its vessel-scrapping programs, which reduced capacity.[384] Japan bought back and scrapped 132 distant water longline vessels in 1998–1999 and another sixty-four in 2009.[385] Chinese Taipei has also bought back tuna longline vessels,[386] but its longline fleet still remains by far the largest in the WCPFC Convention Area with 1,028 registered vessels.[387] China has the next largest fleet at 499 vessels.[388]

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376 *See 2016 Overview of Tuna Fisheries in the Western and Central Pacific Ocean*, *supra* note 78, at 25 ("A significant change in the [WCPFC] longline fishery over the past 10 years has been the growth of the Pacific Islands domestic albacore fishery, which has risen from taking 33% of the total south Pacific albacore longline catch in 1998 to accounting for around 50–60% of the catch in recent years."); *see also id.* at 24 fig.33 (showing an increase in the number of Pacific island vessels from 1992 to 2016).

377 *See supra* note 122 and accompanying text (reporting that twenty-two of twenty-five of the vessels flagged by Vanuatu and registered to fish in the WCPFC Convention Area are owned by nationals or companies of China and Chinese Taipei).

378 CAMPLING ET AL., *supra* note 132, at 147.

379 *See id.* at 175–76.

380 Interview with Mike A. McCoy, *supra* note 303.

381 CAMPLING ET AL., *supra* note 132, at 175–76.

382 *Accord id.* at 176 (stating that claims of sufficient pay to crew "might be questioned").

383 Sala et al., *supra* note 357, at 5, 7.

384 *Id.*

385 CAMPLING ET AL., *supra* note 132, at 130–31.

386 Theodore Groves & Dale Squires, *Lessons from Fisheries Buybacks*, *in* FISHERIES BUYBACKS 15, 39 (Rita Curtis & Dale Squires eds., 2007), https://perma.cc/6XXU-XDPQ.

387 *See Vessels in the RFV by Vessel Type*, *supra* note 359

388 *See id.*

Consistent with the Executive Director's suggestion in 2013 that vessels transhipping on the high seas may be more likely to engage in underreporting of catch,[389] the authors of a June 2018 study surmise that underreporting catch is "the most obvious reason" that vessels remain profitable.[390] They "conjecture," however, that high seas fishing

> could become rational for the most unprofitable fisheries due to a combination of factors including the following: (i) currently available catch data continue to underrepresent real catches, (ii) vessels fish only part of the time in the high seas and make most of the economic benefit from fishing in EEZs, (iii) government subsidies not accounted for in this analysis, (iv) reduced costs because of unfair wages or forced labor, and (v) reduced costs because of transshipment at sea.[391]

Even with reductions in fleet size, it is possible that fleet numbers remain excessive. In fact, the WCPFC has expressed concern over the size of the fleet.[392] In the purse seine fishery, for example, vessels have become more efficient at catching "due to improved technical developments (e.g. faster vessels, new net technology, smart FADs, etc.)."[393] This has resulted in increased effort, which "implies notable reductions" in effort are needed to reduce impacts to the fishery.[394]

Longline vessels have also become more technologically advanced and more efficient over time. The technological improvements to longline vessels considered to be "especially significant" include

1. improved monofilament longline reels (more power, higher capacity, less wear, lighter);

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389 *2013 Guidelines for Determining Impracticability*, *supra* note 24 (stating "where operators are operating on small margins and concerned about profit and survivability the likelihood of accurate and honest reporting is small and they are likely to undertake IUU activity than profitable operators").

390 Sala et al., *supra* note 357, at 7. The authors state:

> How is it possible that some countries continue to fish in certain high-seas regions while exhibiting an apparent economic loss? For this behavior to be incentive-compatible, there must be a net benefit for individual companies to continue operating in the high seas. The most obvious reason is underreporting the catch, which would result in an underestimate of fishing revenue and profits.

Id.

391 *Id.* The study reports that "[w]ithout bunkers and reefers, fishing in the high seas would be far less profitable, especially for China, which showed the largest number of encounters with reefers for transshipment." *Id.* at 8. This statement, however, is not specific to fishing in the WCPFC Convention Area. *See id.*

392 *See* Alex Tidd & Graham Pilling, W. and Cent. Pac. Fisheries Comm'n, *Preliminary Capacity Utilization Analysis of the WCPO Purse Seine Fleet Using Data Envelopment Analysis (DEA)*, at 1, WCPFC-SC12-2016/MI-IP-03 (2016), https://perma.cc/PT3U-5N9C.

393 Graham Pilling & Shelton Harley, W. and Cent. Pac. Fisheries Comm'n, *Estimating Potential Tropical Purse Seine Fleet Sizes Given Existing Effort Limits and Candidate Target Stock Levels*, at 7, WCPFC-SC11-2015/ MI-WP-10 (August 5–13, 2015), https://perma.cc/FA8Q-AR4L.

394 *Id.*

2. electric fishing lights to replace chemical light sticks;

3. use of temperature/depth recorders during sets;

4. electronic chart plotting software integrated with bridge electronics;

5. use of remote sensing data . . . ;

7. development of onboard processing of tuna to loins; combination of freezing and chilling capability on the same vessel; diversification of markets.[395]

These and other developments in longline fishing gear and practices have likely increased catch:

> [b]ait, hooks, lightsticks, and leaders directly interact with the species; they change catchability by affecting the probability of an animal attacking bait, being hooked or landed. Other changes may increase catchability by increasing the availability of baited hooks (e.g., deeper longlines), improving searching efficiency (e.g., satellite imagery), or increasing the time spent on fishing grounds (e.g., freezers), thereby providing fishers with more time to adapt to local conditions and to "follow the fish". In addition to increasing catch rates, improved fishing gear and practices reduce operating costs. Labor-saving devices, such as line-haulers, reduce costs, but do not directly affect catchability. Our review does not cover the effects of changes in fishing gear and practices on the size ("selectivity") or quality of target species.[396]

Even when fuel costs are considered to be significant,[397] a combination of price for tuna and costs of operating a vessel may also influence the decline in vessel numbers of Chinese Taipei, Japan, and Korea. Economic conditions for the tropical longline fishery declined "continuous[ly] and rapid[ly]" between 1998 and 2008 "as costs increased and prices and catch rates declined."[398] Economic conditions improved in 2009 and 2016 as fuel costs fell and catch rates improved.[399] With more than one factor influencing overall costs, it is difficult to point only to fuel costs as making transhiipment in port impracticable. Moreover, as the long-distance journeys of the profitable U.S. and Japanese fleets indicate, however, fuel prices alone cannot lead one to a finding of impracticability.

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395 David G. Itano, *An Examination of Vessel, Gear and Operational Details Useful for Fishery-Specific Effort Standardization, Including FAD-Related Gear and Fishing Strategies*, at 4, WCPFC-SC2-2006/FT WP-6 (2006), https://perma.cc/82N9-VD6A.

396 Ward & Hindmarsh, *supra* note 354, at 18.

397 Fuel costs are considered "the single most important operational cost across all fleets, subject to the largest fluctuations across all cost categories and, hence, a major determinant in the change of costs over time." TERAWASI & REID, *supra* note 120, at 9.

398 *2016 Overview of Tuna Fisheries in the Western and Central Pacific Ocean*, *supra* note 78, at 33. For a comprehensive review of economic conditions in the tuna fisheries of the WCPFC Convention Area, see generally TERAWASI & REID, *supra* note 120.

399 *See 2016 Overview of Tuna Fisheries in the Western and Central Pacific Ocean*, *supra* note 78, at 34 figs.48 & 49.

E. The "Fresh Fish" and "ULT Fish" Exemptions

The Secretariat and some CCMs have suggested that there may be a need to tranship fresh fish and ULT frozen fish on the high seas.[400] These two exemptions, they argue, may be justifiable for some vessels in light of the dynamics of the fishery, the unavailability of ULT freezer capacity at some ports, and the need to get fresh fish to market as soon as possible.

Whether these exemptions are necessary in all circumstances, however, bears some scrutiny. An exemption for fresh fish, for example, may not always be necessary. Suppliers indicate that fish stays fresh if properly iced for up to thirty days.[401] The U.S. and Japanese fleets act accordingly. The U.S. longline fleet catches substantial amounts of fish within the WCPFC Convention Area in the North Pacific Ocean[402] and yet lands all of the catch in port.[403] Japan also catches much of its fish for the fresh market. In 2015, 66,200 metric tons of fresh tuna were sold in Japan[404] During that year, Japan reported thirty-one high seas transhipments[405] totaling 1,744 metric tons of bigeye, yellowfin, and other species caught in the WCPFC Convention Area.[406] The small volume of Japanese transhipments indicates that, although the total amount of fresh fish sold in Japan includes imports from other CCMs, Japanese fishing vessels are catching a large volume of fish hundreds of miles from Japan but nonetheless landing it there.[407]

The exemption for vessels carrying ULT frozen fish also requires some scrutiny. It is well accepted that ULT frozen tuna is a growing segment of the market and commands a price premium. [408] The idea that longliners with ULT frozen tuna require the ability to tranship on the high seas to carrier vessels with ULT freezer capacity has become so well accepted that the Secretariat's most recent proposal to revise transhipment rules included an exemption for such high seas transhipments.[409]

Still, the identification of those ports lacking ULT container capacity has not been documented. In addition, and perhaps more relevant, it may be economically feasible for carrier vessels to move operations from the high seas to port, just as they have done for purse seine transhipments. If carrier

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400 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, at 7; *2013 Guidelines for Determining Impracticability*, *supra* note 24, at 6 (noting Fiji's need to get sashimi grade fish to market "in the best possible condition").

401 Email with Eric Kingma, International Fisheries/Enforcement/NEPA Coordinator, Western Pacific Regional Fishery Mgt. Council (Aug. 7, 2018) (on file with author).

402 United States, *Annual Report to the Commission: Part 1: Information on Fisheries, Research, and Statistics*, WCPFC-SC14-AR/CCM-27 (Rev. 1), at 22 (Aug. 11, 2018).

403 *See supra* Part III.C.

404 CAMPLING ET AL., *supra* note 132, at 80. In contrast, 232,000 metric tons of frozen tuna were sold in Japan that year. *Id.* at 70.

405 W. and Cent. Pac. Fisheries Comm'n Secretariat, *Annual Report on WCPFC Transshipment Reporting, with an Emphasis on High Seas Activities*, WCPFC-TCC12-2016-RP03_rev1, at Annex 2A (Sept. 7, 2016), https://perma.cc/AJP9-R7YV.

406 *Id.* at Annex 2B.

407 *See supra* Part III.C.

408 CAMPLING ET AL., *supra* note 132, at 142, 171.

409 *2016 Guidelines for High Seas Transshipment*, *supra* note 24, at 7.

vessels move to port, then the ports themselves may not need ULT freezer capacity.

Moreover, an examination of fleet dynamics and longliners operating in the WCPFC Convention Area suggests that such an exemption is not necessary. For example, in 2015, all Korean longline vessels registered to fish in the WCPFC Convention Area had ULT freezer capacity[410] and fish hold capacity of 239 to 574 metric tons.[411] Korean vessels transhipped on the high seas a total of 8,851.9 metric tons[412] of tuna in 90 separate transhipments events in 2017, for a total of 98.35 metric tons per transhipment, an amount far less than half of vessel's hold capacity. Moreover, Korean longliners tranship on the high seas fewer than 1.5 times per year. See Table 1. At these catch rates, Korean longliners could stay at sea for more than two years without filling their holds. Because Korean longliners fish in the WCPFC Convention Area for 18 to 24 months before returning to Busan, the home port for all Korean longline vessels,[413] retaining catch until the vessels return and prohibiting these vessels from transhipping on the high seas should not cause significant economic hardship or cause substantial changes to historical modes of operation. Importantly, Busan, which handles about 90% of landed sashimi-grade frozen tuna,[414] has sufficient ULT freezer capacity.[415]

Similarly, the Japanese distant water longline vessels typically, if not always, have ULT freezer capacity with hold capacities of 300 to 400 metric tons.[416] Not only do these vessels usually return to Japanese ports with their catch,[417] but they also catch about 250 to 300 metric tons of fish per year, an amount smaller than their hold capacity.[418] In other words, these vessels could fish for a year without filling their freezers. Asking these vessels to tranship in port once or twice each year can hardly constitute a "significant economic hardship" or a "significant and substantial change[]" to their historical mode of operation.

It is more difficult to evaluate the other fleets that tranship on the high seas. Chinese longline vessels, for example, catch "ice fresh tuna" as well as "deep frozen tuna."[419] It is not clear whether deep frozen includes ULT and if it does how many vessels have ULT capacity. Many of the vessels clearly

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410 CAMPLING ET AL., *supra* note 132, at 153.

411 *Id.* at 154.

412 Republic of Korea, Annual Report to the Commission: Part I: Information on Fisheries, Research, and Statistics, WCPFC-SC14-AR/CCM-12, at tbl. 6A (2018), https://perma.cc/R9NM-BZYB.

413 CAMPLING ET AL., *supra* note 132, at 156.

414 *Id.* at 161 (only about 10% of the total catch is landed directly in Japanese ports as opposed to Korea).

415 *Id.* at 160–61 (describing the ULT freezer capacities of several Busan-based companies).

416 *Id.* at 125. Japan's longline fleet is segmented into different sizes and types. Japan, Annual Report to the Commission: Part I: Information on Fisheries, Research, and Statistics, WCPFC-SC14-AR/CCM-10 Rev. 1, at §§ 3, 4.1 (2018), https://perma.cc/T5HH-RASU. Some vessels have ULT freezer capacity and others not. CAMPLING ET AL., *supra* note 132, at 57.

417 CAMPLING ET AL., *supra* note 132, at 128.

418 *Id.* at 125.

419 China, Annual Report to the Commission: Part I: Information on Fisheries, Research, and Statistics, WCPFC-SC14-AR/CCM-03 Rev. 1, at § 2.1 (2018), https://perma.cc/NSD6-3KWF.

have ULT freezer capacity,[420] but neither the exact number nor the hold capacity of those vessels is known.

A growing number of vessels from Chinese Taipei also appear to have ULT capacity. Among those vessels between 20 and 99 gross tons, 100 to 150 vessels had ULT capacity in 2015,[421] and the majority (84 of 110) of the large-scale longline vessels may have ULT capacity.[422] These vessels have an average hold capacity of 540 cubic meters.[423] In 2017, 82 of these vessels caught 19,550 metric tons of tuna and tuna-like species in the WCPFC Convention Area,[424] for an average of 238.41 metric tons per year. As with Korean and Japanese vessels, most of these vessels could stay on the fishing grounds for a full year without filling their holds.

VII. RETHINKING THE IMPRACTICABILITY STANDARD: A PROPOSAL

A. Problems with the Impracticability Test

CMM 2009–06 attempted to prohibit transhipment on the high seas except in a very narrow set of circumstances by setting a "high threshold" for "impracticability."[425] The lack of clarity of the two-part impracticability test—"significant economic hardship" and "significant and substantial changes" to a vessel's historical mode of operation—do not explain the unwillingness of some CCMs to tranship in port. In fact, some CCMs have treated transhipment in port as the exception and not the rule.[426] CCMs have failed to report on procedures to monitor high seas transhipment and have failed to provide plans detailing how they are encouraging a reduction in transhipment on the high seas.[427]

Even if transhipment at sea remains a common global practice, that does not mean that it is an appropriate practice. Indeed, research indicates that numerous illegal activities, including IUU fishing and human rights abuses, are associated with high seas transhipment[428] and that some fleets in the WCPFC may be profitable only because of their IUU fishing associated with high seas transhipment.[429] These activities strongly indicate that transhipment at sea must be prevented or sharply reduced and heavily monitored.

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420 CAMPLING ET AL., *supra* note 132, at 185 (noting that one company has 36 ULT tuna longliners).

421 *Id.* at 138.

422 *Id.* at 142 (stating that these vessels "have blast freezers . . . , which allow them to access the premium sashimi markets for ULT products.").

423 *Id.* at 142.

424 Chinese Taipei, *Annual Report to the Commission: Part I: Information on Fisheries, Research, and Statistics*, WCPFC-SC14-AR/CCM-23, at 10, tbls. 1 & 2 (2018), https://perma.cc/PUF8-FEWP.

425 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, at ¶¶ 9, 23.

426 WCPFC13 SUMMARY REPORT, *supra* note 257, at ¶ 167 (statement of the European Union).

427 *2013 Guidelines for Determining Impracticability*, *supra* note 24.

428 *See* Sala et al., *supra* note 357, at 7–8.

429 *Id.* at 7.

Moreover, as described in the preceding sections, the evidence indicates that transhipment in port is not impracticable:

1) A review of port infrastructure appears to support the 2013 conclusion of the Executive Director that CCMs in the region "have well establish[ed] port and transport infrastructure."[430] Some may lack ULT freezer capacity, but that lack could potentially be filled by carrier vessels with ULT freezer capacity.[431]

2) A significant portion of the purse seine catch is taken from the high seas yet those vessels tranship in port.

3) At least three longline fleets—those of the European Union, Japan, and the United States—fish on the high seas hundreds of nautical miles from port yet tranship all (European Union and United States) or most (Japan) of their high seas catch in port.[432] A large number of high seas transhipments occur just outside the EEZs of CCMs,[433] suggesting that these vessels are able to tranship in port.

4) Only five CCMs have transhipped on the high seas in the last two years, with just three CCMs—China, Chinese Taipei, and Vanuatu—accounting for 84% and 89% of those transhipments in 2015 and 2016, respectively.[434]

5) Costs associated with transhipment in port are insignificant in relation to the costs of operating a tuna vessel.[435]

6) Fuel and labor costs do not fully explain an inability to tranship in port as overcapacity may play a more significant role, as evidenced by the profitability of the Japanese fleet.[436]

7) Given the variables affecting profitability—operational costs, subsidies, and over-capitalization—assessing whether transhipment in port causes "significant economic hardship" on a vessel-by-vessel basis is challenging.

8) Transhipment on the high seas of fresh fish and ULT frozen fish does not appear necessary to preserve the quality of the product.[437]

In addition, CCMs have abused their discretion under paragraph 34 of CMM 2009–06 to determine when transhipment in port is impracticable. As noted above, no CCM has made impracticability findings on a vessel-by-vessel basis, no CCM has advised the WCPFC of its monitoring and

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430 *2013 Guidelines for Determining Impracticability*, *supra* note 24.

431 *See supra* Part VI.C.

432 *See supra* Part III.C.

433 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at 10 fig.3, 11 fig.4, 12 fig.5.

434 *Id.* at 6 tbl.2.

435 *See supra* Part VI.C.

436 *See* Sala et al., *supra* note 357, at 5, 7.

437 *See supra* Part VI.E.

verification procedures for high seas transhipments, and no CCM has submitted to the WCPFC a plan detailing the steps it is taking to encourage transhipment in port.[438]

These failures to submit required information could be considered an abuse of right under international law. In the Shrimp-Turtle case,[439] the Appellate Body of the World Trade Organization relied on abuse of rights in its analysis of whether U.S. rules fell within the Article XX(g) exception to the core obligations of the General Agreement on Tariffs and Trade (GATT).[440] The Appellate Body stated:

> [t]he chapeau of Article XX [concerning exceptions to the GATT's rules] is, in fact, but one expression of the principle of good faith. This principle, at once a general principle of law and a general principle of international law, controls the exercise of rights by states. One application of this general principle, the application widely known as the doctrine of *abus de droit*, prohibits the abusive exercise of a state's rights and enjoins that whenever the assertion of a right "impinges on the field covered by [a] treaty obligation, it must be exercised bona fide, that is to say, reasonably." An abusive exercise by a Member of its own treaty right thus results in a breach of the treaty rights of the other Members and, as well, a violation of the treaty obligation of the Member so acting.[441]

Moreover, the two elements of the impracticability test are inherently problematic. The "substantial economic hardship" finding in a fisheries context is a difficult one to make. Fuel costs are not constant and could change even during a fishing season.[442] Tuna change location based on El Niño cycles and other conditions, which affects fuel and transport costs.[443] Thus, it might be difficult to predict whether transhipment in port during any particular season—prior to the season starting—is likely to cause substantial economic hardship.

In addition, as long as the finding is unilateral, other CCMs will likely be unable to verify a determination of "substantial economic hardship." Economic data concerning fisheries is frequently closely guarded. When the FFA suggested in 2017 that CCMs submit economic data to allow for a better evaluation of the economic health of the fishery, Japan responded that "economic data were often considered as sensitive information."[444] China

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438 *See supra* notes 21–23 and accompanying text.

439 Appellate Body Report, *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, WTO Doc. WT/DS58/AB/R (adopted Oct. 12, 1998) [hereinafter Shrimp-Turtle case].

440 *Id.* at ¶¶ 35–36.

441 *Id.* at ¶ 158 (alteration in original) (citing another source).

442 *See, e.g.*, United States, *Annual Report to the Commission: Part 1: Information on Fisheries, Research, and Statistics*, WCPFC-SC14-AR/CCM-27 (Rev. 1), at 23 (Aug. 11, 2018) (stating that the "price of fuel is increasing in 2018 which may hinder the economic performance of both sectors of the longline fishery").

443 *See* Linda M.B. Paul, *The Magnuson Act Amendments and their Impact on Western Pacific Fisheries*, 9 TULANE ENVTL. L.J. 329, 337 (1996).

444 W. AND CENT. PAC. FISHERIES COMM'N, THIRTEENTH REGULAR SESSION OF THE SCIENTIFIC COMMITTEE: SUMMARY REPORT ¶ 145 (2017) [hereinafter SC13 SUMMARY REPORT].

noted that seeking such information was "premature,"[445] while Chinese Taipei responded that any "proposed guidelines would be voluntary."[446]

The second component of the impracticability test—whether transhipment in port might cause "significant and substantial changes to [a vessel's] historical mode of operation"—also poses serious challenges to meaningful implementation. First, one could argue, for example, that a requirement for a vessel to tranship in port when it has not done so in the past constitutes, in and of itself, a significant and substantial change to a vessel's mode of operation. Second, CCMs have failed to identify the distinction between "significant" and "substantial" or determine that it is a single standard. In the United States, for example, courts may overturn agency actions if they are considered to be "arbitrary or capricious."[447] U.S. courts, including the Supreme Court, have treated this as a single standard, not two.[448] If "significant and substantial" impose two thresholds, they are not easily distinguished. *The Oxford English Dictionary* defines "significant," when used as an adjective, as "[s]ufficiently great or important to be worthy of attention; noteworthy; consequential, influential."[449] "Substantial," meanwhile, means "[f]irmly or solidly established; of solid worth or value; of real significance, weighty; reliable; important, worthwhile."[450] There is clear overlap in these definitions, including that the item be "important."

B. A New Test: A Presumption Against High Seas Transhipment

Against this background, where does one find a compromise? The FFA has urged the adoption of a high seas transhipment ban, and RMI proposed the impracticability test only as a compromise to the ban.[451] FFA members will likely oppose the continuation of the status quo. In addition, they will likely oppose the adoption of the rules of other tuna RFMOs, which allow transhipment at sea if various conditions are met. At the same time, the Asian CCMs have stated their belief that transhipment is a common practice that should be allowed in the WCPFC Convention Area.[452] Despite these opposing views, in September 2018 the WCPFC's Technical and Compliance

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445 *Id.* at ¶ 146.

446 *Id.* at ¶ 148.

447 Pursuant to the Administrative Procedure Act, courts may set aside agency decisions that are "arbitrary, capricious, an abuse of discretion or not in accordance with law." 5 U.S.C. § 706(2)(A) (2000).

448 *See, e.g.*, Motor Vehicle Mfr. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 42–43 (1983) (consistently referring to the "arbitrary and capricious test").

449 *Significant*, OXFORD ENGLISH DICTIONARY (3rd ed. 2011).

450 *Substantial*, OXFORD ENGLISH DICTIONARY (3rd ed. 2012).

451 WCPFC6 SUMMARY REPORT, *supra* note 243, at ¶ 305 ("Some CCMs noted their general opposition to allowing transhipment on the high seas but stated their willingness to support the measure as a first step.").

452 TCC12 SUMMARY REPORT, *supra* note 178, at ¶ 246 ("Chinese Taipei, China and Japan shared the view that high seas transshipment was a common global practice and takes place in all tuna RFMOs.").

Committee agreed that a "review of the existing transhipment measure (CMM 2009–06) should be a priority item in 2019."[453]

With that in mind, and for all of the reasons mentioned in Part A, this Article proposes a presumption against transhipment on high seas. Yet, it also recognizes some of the possible challenges posed by this fishery. Thus, it carves out express time-limited exemptions to the ban while also ensuring that the exemptions are not abused. This Article thus proposes the replacement of paragraphs 34 to 38 of CMM 2009–06[454] with the following paragraphs.

Permissible Exemptions. This Article proposes, at least in the short term, the same exemptions for fresh fish and ULT frozen fish proposed by the Secretariat at TCC12[455] but with some caveats. As noted, however, these two exemptions probably are not justifiable for most of the fleet.[456]

Clearly high seas transhipment of fresh fish is not always necessary. As a consequence, any allowance for an exemption for fresh fish should be accompanied by a separate provision that directs the Secretariat to determine whether or under what circumstances transhipment on the high seas of fresh fish is necessary. To ensure that CCMs fund the study, the exemption for fresh fish should include a sunset provision. The exemption could be renewed provided that it is renewed consistent with the findings of the study.

Similarly, the exemption for ULT frozen fish is not always necessary. Consequently, before providing for such an exemption, CCMs should direct the Secretariat to prepare a report to 1) determine which ports lack freezer capacity, which might be necessary until carrier vessels can get to port, and 2) determine whether it is economically feasible to move carrier vessels that tranship fish from longline vessels from the high seas to port.

The third exemption proposed by the Secretariat for vessels fishing in the overlap area simply honors the WCPFC's decision to allow those vessels registered in both the IATTC Convention Area and the WCPFC Convention Area to follow either the rules of the IATTC or the WCPFC, depending on the rules chosen by the flag State.[457] However, due to the information and procedural requirements proposed below, the exemptions proposed here are not as open-ended as proposed by the Secretariat at TCC12.[458]

The new paragraphs to implement these exemptions could be written as follows:

34) Transhipment on the high seas by non-purse seine vessels is permissible only in the following situations:

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453 W. and Cent. Pac. Fisheries Comm'n, *Outcomes Document-Agreed*, at ¶ 36, TCC14-2018-outcomes (Oct. 2, 2018), https://perma.cc/HBF4-M9F3.

454 CMM 2009–06, *supra* note 22, at ¶¶ 34–38.

455 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, at 7.

456 *See supra* Section VI.E.

457 W. AND CENT. PAC. FISHERIES COMM'N, NINTH REGULATION SESSION SUMMARY REPORT ¶ 80 (Dec. 2–6, 2012), https://perma.cc/LT7X-Y3HK.

458 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, at 7.

a. Non-purse seine vessels using flake ice or refrigerated sea water and which transhipfresh fish to receiving vessels until [insert specific date], where "fresh fish" means tuna or other highly migratory species that are alive, whole or dressed/gutted, but not further processed or frozen;

    i. This exemption may be extended beyond [the date mentioned in sub-paragraph (a)] only if the Secretariat concludes, based on a report it prepares or commissions, that transhipment on the high seas of fresh fish is necessary;

    ii. If the report required by sub-paragraph (a)(i) concludes that transhipment on the high seas of fresh fish is necessary but only under specific conditions, the exemption can be extended beyond [the date mentioned in sub-paragraph (a)], provided that it is amended consistently with the conclusions of the report.

b. Ultra-low temperature (ULT) freezer longline vessels which transhiptuna to ULT freezer carriers in order to supply the high-grade frozen sashimi market until [insert specific date];

    i. This exemption may be extended beyond [the date mentioned in sub-paragraph (b)] only if the Secretariat concludes, based on a report it prepares or commissions, that ports in specific regions of the Convention Area fished have insufficient ULT freezer capacity and it is not economically feasible for carrier vessels to move operations from the high seas to port or, in the alternative, to waters under national jurisdiction.

    ii. If the report required by sub-paragraph (b)(i) concludes that transhipment on the high seas of ULT fish is necessary but only under specific conditions or in certain areas, the exemption can be extended beyond [the date mentioned in sub-paragraph (b)], provided that it is amended consistently with the conclusions of the report.

c. Non-purse seine vessels which fish in WCPFC/IATTC overlap area, provided that the CCM flag State has notified the WCPFC and IATTC that it will apply IATTC resolutions in accordance with the WCPFC9 Decision on the WCPFC-IATTC Overlap Area.

Information Requirements. Currently, CMM 2009–06 imposes far different information and procedural requirements for obtaining an exemption for purse seine vessels and non-purse seine vessels. With respect to purse seine vessels, for example, CCMs must describe where transhipments are likely to occur and provide an explanation for the exemption.[459] This Article proposes the adoption of information requirements for non-purse seine vessels that are similar to those that apply to purse seine vessels, while also retaining the requirement to submit a plan that encourages vessels to tranship in port. Thus, a CCM seeking an exemption to allow transhipments of ULT frozen fish would need to demonstrate that relevant ports do not have adequate ULT freezer capacity and that it is not economically feasible for carrier vessels to locate in relevant ports.

In addition, by harmonizing procedural requirements for obtaining an exemption, this proposal eliminates the unilateral discretion to authorize exemptions that has been wholly ineffective at minimizing transhipment on the high seas in the WCPFC Convention Area. The new paragraphs could be written as follows:

35) CCMs seeking to apply an exemption for a vessel(s) that meets one of the conditions set out in paragraph 34 shall submit a written request to the Executive Director by 1 July of a given year that includes, at a minimum, the following information:

    a. the information required by paragraph 26 of this CMM;

    b. the CCM's procedures for monitoring and verification of the transhipments;

    c. a list of vessels for which the CCM seeks an exemption;

    d. a plan detailing the steps it is taking to encourage transhipment in port by the vessels included in the list provided pursuant to paragraph (b).

36) Paragraphs 27 to 31 of this CCM [concerning review of the requests by the TCC] shall apply *mutatis mutandis* to requests to tranship on the high seas by non-purse seine vessels.

Time Limits for Exemptions. To make the information requirements effective—in particular, the plan detailing efforts to encourage transhipment in port—exemptions should be limited to a specified period of time, for example, three years. If a CCM is not implementing its plan to encourage transhipment in port, then presumably the WCPFC will not grant a renewal of an exemption for a vessel flagged by that CCM. That should create a strong incentive to develop and implement such plans. The new paragraph could be written as follows:

37) The Commission shall not grant an exemption of more than three years.

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459 CMM 2009–06, *supra* note 22, at ¶ 26.

38) A CCM may seek renewal of an exemption for a vessel(s) provided that it submits the information required by paragraph 35 and the Commission follows the process required by paragraph 36.

Notification Requirements. The paragraphs on notification of transhipments are currently found in paragraph thirty-five of CMM 2009–06.[460] However, this article proposes to shorten the timeframe for providing the Executive Director with the Transhipment Declaration, as indicated below. With modern communication systems on board tuna vessels, there is no reason that vessels cannot immediately transmit forms.[461] In fact, the CCSBT, IATTC, ICCAT, and IOTC already require transmission of the transhipment declaration within twenty-four hours of completing the transhipment by the master of the carrier vessel.[462] Moreover, near real-time submission of the transhipment declaration would provide additional time "for all relevant actors to cross reference and verify the information and therefore be confident that the produce has been sourced legally."[463] The new paragraph could be written as follows:

39) If the Commission authorizes transhipment on the high seas, the CCMs responsible for reporting against both the offloading and receiving vessels shall, as appropriate:

a. notify the information in Annex III to the Executive Director at least 36 hours prior to each transhipment; and

b. provide the Executive Director with a WCPFC Transhipment Declaration within ~~15 days~~ 24 hours of completion of each transhipment.

Observer Deployment. This article also proposes the replacement of paragraph 13 of CMM 2009–06 to require deployment of an observer from the Regional Observer Programme on both the offloading vessel and the receiving vessel. CMM 2009–06 currently requires an observer on the receiving vessel or either the receiving or offloading vessels, depending on the situation.[464] The placement of observers on both the offloading and receiving vessels appears necessary to overcome IUU fishing concerns and other issues associated with transhipment at sea. It also helps fulfill the WCPFC's goal to put observers on at least 5% of the effort in the longline fishery.[465] The Secretariat of the Pacific Community (SPC) estimates observer coverage on Chinese longliners at 2.2% to 2.6%, Vanuatu coverage

460 *Id.* at ¶ 35.

461 *See* VAN DER GEEST, *supra* note 184, at 58, 67 (calling for real-time transmission of the transhipment declaration).

462 CCSBT Transhipment Resolution, *supra* note 43, at ¶ 27; IATTC Resolution C-12-07, *supra* note 43, at ¶ 14; ICCAT Resolution 16–15, *supra* note 43, at ¶ 17; IOTC Resolution 17/06, *supra* note 43, at ¶ 15.

463 VAN DER GEEST, *supra* note 184, at 58, 67.

464 CMM 2009–06, *supra* note 22, at ¶ 13.

465 W. and Cent. Pac. Fisheries Comm'n Secretariat, *Conservation and Management Measure for the Regional Observer Programme*, CMM 2007–01, at Annex C, at ¶ 6 (2007), https://perma.cc/3DFG-HKTN.

at 2.0%, and Chinese Taipei at 1.9% to 3.9% for its small tuna longliners and a more favorable 8.2% for its large tuna longliners.[466] Because observer coverage on carrier vessels is poorly known, the WCPFC agreed in 2017 to require CCMs to report observer coverage on carrier vessels conducting transhipments at sea.[467]

CCMs have complained about the cost of deploying an observer on both the offloading and receiving vessels.[468] However, if all vessels are required to have observers or tranship in port, then no vessel has a competitive advantage. CCMs and vessel owners should therefore not worry that the additional costs imposed by having an observer on board will cause economic harm.

The Secretariat has noted a shortage of qualified observers.[469] Yet, the Pacific Island Regional Observer Programme has supplied observers for each of the 504 purse seine vessels registered to fish in the WCPFC Convention Area.[470] Training additional observers for the 352 vessels that actually transhipped on the high seas in 2016 and a number of carrier vessels may be challenging but it is not an insurmountable obstacle to a two-observer requirement. The number of new observers needed may be lower since some of the longliners or carrier vessels transhipping on the high seas may already deploy observers.

Electronic monitoring—the use of video cameras, sensors, and the Global Positioning System (GPS) aboard fishing vessels—shows promise for observing transhipments and trials on its use have begun in the WCPFC Convention Area.[471] Yet, CCMs are still developing standards not only for the collection of data from electronic monitoring systems[472] but also for training, assessment, and certification of analysts to interpret the data resulting from electronic monitoring.[473]

Electronic monitoring systems may be able to complement observers in the future,[474] but difficult issues need to be resolved first. As the United States has commented,

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466 Peter Williams et al., *Status of Observer Data Management*, WCPFC-SC13-2017/ST IP-02, at 16 tbl. 4 (2017), https://perma.cc/9282-HV2Z.

467 WCPFC14 SUMMARY REPORT, *supra* note 63, at ¶ 387.

468 TCC9 SUMMARY REPORT, *supra* note 111, at ¶ 261 ("Some CCMs considered the proposal that both receiving and offloading vessels involved in high seas transhipment carry observers to be excessive and unnecessary.").

469 *See* W. and Cent. Pac. Fisheries Comm'n, *9th Annual Report for the Regional Observer Programme*, at ¶ 34, WCPFC-TCC13-2017-RP02 (Sept. 2, 2017), https://perma.cc/G4Y4-9XN2.

470 *Id.* (stating that the Pacific Island Regional Observer Programme suppled 100% observer coverage for purse seine vessels); *Vessels in the RFV by Vessel Type*, *supra* note 359 (reporting the number of purse seine vessels registered to fish in the WCPFC Convention Area).

471 Malo Hosken et al., W. and Cent. Pac. Fisheries Comm'n, *Progress on ER and EM Implementation in the Region*, at 2–3 & tbl.1, 6 tbl.2, WCPFC-2018-ERandEMWG3-IP-01 (July 23, 2018), https://perma.cc/FV4U-4S2M.

472 *See id.* at 8.

473 *Id.*

474 *See* W. AND CENT. PAC. FISHERIES COMM'N, THIRD E-REPORTING AND E-MONITORING WORKING GROUP MEETING: SUMMARY REPORT, at ¶ 40 (2018) (stating "Japan agreed with Nauru's earlier statement that human observer cannot be replaced by E-monitoring").

> [s]uccessful use of electronic monitoring technologies must take into account complex hardware and software, varied boat sizes and designs, and the damage that can be done to electronics when exposed to saltwater and pounding waves. These are just some of the real-world practical challenges. We've also identified a number of policy and data-related challenges presented by adoption of new technologies. These include the handling of the enormous amount of data generated by electronic monitoring, effects on time series of data used in stock assessments, confidentiality, and cost allocation between government and non-government partners.[475]

Until these issues can be resolved, the WCPFC should adopt a two-observer requirement for high seas transhipment. The WCPFC could implement such an obligation as follows:

> 13) Each CCM shall ensure that vessels for which it is responsible carry an observer from the WCPFC Regional Observer Programme (ROP) to observe transhipments at sea.
>
> 13 *bis* A CCM shall not authorize transhipment on the high seas by a vessel it is responsible for to a receiving vessel that does not have an observer from the ROP to monitor the transhipment.

Observer Reports. Presently, CMM 2009–06 requires observers to "confirm to the extent possible that transshiped quantities of fish are consistent with other information available to the observer."[476] However, the WCPFC does not require Regional Observer Programmes to submit observer reports relating to transhipment at sea to the Secretariat,[477] and the Secretariat reported that only one observer report relating to transhipment at sea was received in 2016.[478] Nor are CCMs required to report whether an observer was onboard the vessel(s) conducting transhipments at sea. Consequently, there is no ability to verify the claims of CCMs. This article recommends that the WCPFC amend relevant documents to require such reporting.

Review. These rules are a departure from current rules. Thus, it is appropriate to review them to identify what the impact is on fishing operations and particular vessels. In addition, technological changes may allow for new methods, such as e-reporting and e-monitoring, to monitor transhipments at sea. The technology is improving for viewing a transhipment, although it is not clear whether it helps review logbooks and other documentation that observers are expected to review. The new paragraph that requires a review of the effectiveness and impacts of these provisions could be written as follows:

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475 *Electronic Monitoring*, NOAA FISHERIES, https://perma.cc/2K37-TGAH (last updated May 31, 2018).

476 CMM 2009–06, *supra* note 22, at ¶ 14.

477 W. AND CENT. PAC. FISHERIES COMM'N, THIRTEENTH REGULAR SESSION OF THE TECHNICAL AND COMPLIANCE COMMITTEE: SUMMARY REPORT, at ¶ 203, WCPFC14-2017-TCC13 (Nov. 14, 2017), https://perma.cc/GLP8-WC3X.

478 *Id.*

40) The Commission, through the TCC, shall review these provisions every three years to assess their appropriateness. The review will consider

    a. whether additional controls should be implemented or controls relaxed;

    b. the impacts, both positive and negative, on fishing operations and specific vessels; and

    c. the appropriateness of e-monitoring as a cost-effective strategy for monitoring transhipment on the high seas.

VIII. CONCLUSION

Worldwide, transhipment at sea, particularly on the high seas, is a serious problem. It has been linked to IUU fishing, human trafficking, prostitution, and movement of drugs, guns, and wildlife.[479] Thus, even though it is a common global practice, the international community has moved to restrict it and, in the case of the South East Atlantic Fisheries Organization, to prohibit it.

The WCPFC has sought to limit transhipment at sea, but its efforts, at least with respect to longline vessels, have not been effective. While transhipment at sea by purse seine vessels is expressly prohibited, the WCPFC authorizes CCMs to determine unilaterally that transhipment in port is "impracticable" for longline and other non-purse seine vessels.[480] The WCPFC established a "high threshold" for making "impracticability" findings.[481] CCMs must make vessel-specific determinations that transhipment in port would cause "significant economic hardship" and a vessel would have to make "significant and substantial changes to its historical mode of operation."[482] They are also required to advise the WCPFC of their monitoring and verification procedures for transhipments on the high seas and submit a plan detailing the steps being taken to encourage transhipment in port.[483]

However, certain CCMs are not implementing any of these duties. No CCM has advised the WCPFC of its monitoring and verification procedures or submitted a plan to encourage transhipment in port, and CCMs do not make vessel-specific determinations.[484] Instead, authorizations to tranship on the high seas are implied from information submitted by CCMs for the Record of Fishing Vessels.[485] Such authorization has become more the rule than the exception: more than 50% of longline and other non-purse vessels

479 *See supra* Part II.

480 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, ¶ 9.

481 *Id.*

482 CMM 2009–06, *supra* note 22, ¶ 37.

483 *Id.* at ¶¶ 35(a)(ii), (v).

484 *2013 Guidelines for Determining Impracticability*, *supra* note 24.

485 *2016 Guidelines for High Seas Transhipment*, *supra* note 24, ¶ 10.

are registered to tranship on the high seas[486] and significant amounts of valuable tuna, including 36.9% of bigeye tuna, are transhipped on the highs seas.[487] Clearly, CMM 2009–06 is not effectively reducing transhipment on the high seas.

Moreover, the evidence indicates that transhipment in port is not impracticable. Port infrastructure throughout the region appears sufficient to support and supply fishing vessels,[488] except that some ports lack ULT freezer capacity, which could be mitigated by placing carrier vessels with ULT freezer capacity in those ports.[489] All purse seine fleets and the longline fleets of the United States, European Union, and Japan catch fish on the high seas yet travel hundreds of nautical miles to tranship in port.[490] A large number of high seas transhipments occur just outside the EEZs of CCMs,[491] suggesting that these vessels are able to tranship in port but choose not to in order to avoid monitoring by coastal State CCMs. Moreover, costs associated with transhipment in port are insignificant in relation to the costs of operating a tuna vessel.[492] Fuel and labor costs do not fully explain an inability to tranship in port as overcapacity may play an equal or more significant role as evidenced by the profitability of the Japanese fleet, which has declined in number due to a vessel scrapping program.[493]

Thus, this Article proposes replacement of the "impracticability" test with a presumption against transhipment on the high seas. It allows, however, time-limited exemptions to ensure transhipment of ULT frozen fish from a fishing vessel to a carrier vessel and for fresh fish. However, it directs the Secretariat to study the circumstances under which these exemptions are needed; the exemptions expire unless these studies conclude that the exemptions are necessary. In addition, and in sharp contrast to the current regime, the exemptions must be approved by the WCPFC; they cannot be unilaterally established. The process that applies to exemptions for purse seine vessels would be applied to all other vessels. Moreover, to allow the WCPFC to review implementation of such plans to encourage transhipment in port, exemptions may not be granted for more than three years, although CCMs may apply for a new exemption at the end of the three years. Only through such a process can the WCPFC help minimize IUU fishing, prevent human rights abuses, and reduce opportunities for human trafficking and smuggling of guns, drugs, and wildlife. At the same time, it will help Pacific Island States develop their ports and economies.

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486 *Id.* at ¶ 15.

487 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at tbl.3.

488 *See supra* Part VI.B.

489 *See supra* Part VI.B.

490 *See supra* Part III.C.

491 *2017 Annual Report on WCPFC Transhipment Reporting*, *supra* note 26, at figs.3, 4 & 5.

492 *See supra* Part VI.C.

493 *See supra* Part VI.D.