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OPEN WATER
GUIDANCE ON VESSEL TRANSPARENCY
FOR SEAFOOD COMPANIES

FISHWISE

CONTENTS

"In order to safeguard human rights and reduce illegal activity at sea, companies – along with NGOs and governments – must commit to initiatives which improve vessel monitoring and transparency."

— *Tobias Aguirre, FishWise C.E.O.*

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ABBREVIATIONS

AIS	– automatic identification systems
C188	– International Labour Organisation Work in Fishing Convention No. 188, or Work in Fishing Convention
CTA	– Cape Town Agreement
EEZ	– exclusive economic zone
EM	– electronic monitoring
EU	– European Union
FAO	– Food and Agriculture Organisation
FAR	– Fishing Authorisation Regulation
FiTI	– Fisheries Transparency Initiative
GT	– gross tonnage
ILO	– International Labour Organisation
ILO 188	– International Labour Organisation Work in Fishing Convention No. 188, or Work in Fishing Convention
IMO	– International Maritime Organisation
IRCS	– international radio call sign
ISSF	– International Seafood Sustainability Foundation
IUU	– illegal, unreported, and unregulated
KDE	– key data element
LOA	– length overall
NGO	– non-governmental organization
PSMA	– Port State Measures Agreement, or the Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing
PVR	– ProActive Vessel Register
RFMO	– regional fisheries management organization
SOFIA	– State of World Fisheries and Aquaculture
STCW-F	– Convention on Standards of Training, Certification, and Watchkeeping for Fishing Vessel Personnel
TIP	– Trafficking in Persons Report
TMT	– Trygg Mat Tracking
U.S.	– United States of America
UVI	– unique vessel identifiers
VMS	– vessel monitoring systems

EXECUTIVE SUMMARY

Improving vessel monitoring and transparency is an important step towards encouraging legal and responsible seafood supplies. Vessel monitoring - achieved through implementing systems to better detect fishing vessel activity remotely - can assist governments, other regulatory bodies, and (at times) companies in understanding vessel location and activity. Vessel transparency - achieved through greater visibility of and records for vessel attributes such as name, owner, flag State, etc. - can enhance oversight and understanding of vessel ownership. Through monitoring and transparency combined, there can be an improved understanding of vessel location, activity, and ownership. This increased oversight creates challenges for those attempting to conduct illegal activities at sea with impunity, including human rights and labor abuses.

This paper will provide recommendations for how companies can improve vessel monitoring and transparency both within their operations as well as globally. Recommendations for increasing the global ratification and enforcement of key international agreements are also included to support the ultimate goal of strengthening vessel safety and labor protections for crew. The document primarily highlights four types of initiatives to achieve these monitoring, transparency, and safety goals:

1. International Maritime Organization numbers

The International Maritime Organization (IMO) ship identification numbering scheme, applied to fishing vessels in 2013, was introduced as a way to increase maritime security and prevent maritime pollution and fraud, by assigning a unique seven-digit number that stays with the vessel until it is scrapped or decommissioned, regardless of changes in the vessel's name, country of registra-

tion, or owner. Clarifying expectations that fishing vessels supplying product to North American supply chains should possess IMO numbers will result in improved transparency, helping to close critical information gaps, support traceability efforts, and reinforce human rights improvements.

2. Public vessel lists and data transparency

Public vessel information can help companies and nongovernmental organizations (NGOs) identify illegal, unreported, and unregulated (IUU) vessel activity and identify potential trafficking and forced labor issues within supply chains. There are currently four primary public vessel lists:

    I. United Nations (UN) Food and Agriculture Organization's (FAO) Global Record

    II. IUU Vessel List

    III. WhoFishesFar

    IV. International Seafood Sustainability Foundation (ISSF) ProActive Vessel Register

3. International agreements

International agreements are important tools that countries can use to address complex, global problems – such as vessel safety and transparency – cooperatively and on a large scale. While there are four key agreements and/or conventions necessary for vessel safety, environmental protection, and fishers' training and rights, this paper focuses on the Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (also known as the Port State Measures Agreement or PSMA). Unlike the other three agreements (the Work in Fishing Convention, Cape Town Agreement, and Standards for Training, Certification, and Watchkeeping), the PSMA provides binding obligations for fishing vessel transparency, and thus its widespread

implementation can contribute to reducing illegal activity on vessels.

4. Vessel monitoring

Vessel monitoring systems, particularly in areas beyond national jurisdiction, play an important role in increasing transparency and addressing vulnerabilities that allow for the concealment of illicit activities, such as IUU fishing or human and labor rights abuses. Automatic identification systems, vessel monitoring systems, electronic monitoring, and initiatives like Global Fishing Watch, are systems companies can leverage to increase transparency and accountability in their supply chains.

Using these existing tools, companies at all levels of seafood supply chains can take action to improve vessel transparency and ensure a legal seafood supply by taking the following steps:

- Require all eligible vessels to have an IMO number
- Require all vessels to have an electronic vessel monitoring system
- Encourage data transfer to public vessel lists
- Encourage flag States, especially those of high sourcing priority, to ratify the four key international agreements
- Implement, or request the implementation of, the standards outlined in the four key international agreements by vessels, supply chains, and international fisheries management organizations
- Share key data elements about seafood sources – including fishing or farm location, flag of vessel, IMO number, and method of fishing – throughout the supply chain
- Continuously advocate for the adoption of the four initiatives outlined in this document by supply chains, governments, and international fisheries management organizations

ISSUE BACKGROUND

Seafood products sourced from illegal activities, both in the spheres of fishing and human rights, can put companies' reputations at risk and undermine consumer confidence in sustainable seafood products. Illegal activities at sea exist in part due to a high-profit, low-risk business model where nations may lack the resources to effectively police their vast maritime zones. Additionally, fishing vessels often operate on the high seas beyond national jurisdiction and with little or no effective oversight which can allow for IUU fishing activities to occur. Illicit activities at sea, such as human rights abuses, seafood fraud, document forgery, bribery, and money laundering may happen in conjunction with one another.[1]

Human and labor rights violations, similar to other illegal activities, can occur with impunity without proper avenues for monitoring and oversight. Undocumented steps in supply chains regarding recruitment of workers, working conditions, and worker payments pose a particularly high risk for workers at sea as well as companies. For example, in 2014 an investigation by The Guardian found that fishmeal used to feed farmed shrimp was caught by vessels using forced laborers.[2]

Illegal, unreported, and unregulated fishing is a global problem that threatens marine ecosystems, undermines the sustainability of fish stocks, and results in significant financial losses for nations around the world.[3] IUU fishing vessels can easily change their identity, ownership, and flag State (the country in which the vessel is registered) making it difficult for nations to monitor their activities or to enforce laws across international borders.

Fisheries crime includes various illegal activities in the fisheries sector – such as illegal fishing, docu-

ment fraud, trafficking in drugs or wildlife, and money laundering – which frequently occur at a transnational, organized level.[4] In addition to the challenges present for most monitoring and enforcement efforts in international waters, fisheries crime is often assumed to be illegal fishing and enforced at a fisheries management level. The low penalties and low likelihood of detection, paired with high profits, allow crime to occur with impunity.

Fisheries management efforts can be stymied by illegal activities. Producing fishery stock assessments and setting catch limits requires accurate records of fish catch. Without vessel transparency, monitoring, and evaluation, there may be challenges in capturing accurate data regarding regions from which fish are caught, as well as which species are caught.

At-sea transshipment – the transfer of fish, supplies, or other cargo between vessels at sea – allows fishing vessels to offload catch with a large refrigerated transport vessel (known as "carriers" or "reefers") and stay near productive fishing grounds to save both time and fuel that would otherwise be needed to return to their home ports. When properly regulated and monitored, transshipment is a legitimate practice that lowers operational costs while reducing the amount of time needed for seafood products to reach the market. However, at-sea transshipment is primarily conducted in high seas areas where there is little capacity for monitoring and oversight. Due to this, at-sea transshipment often results in increased risks for IUU seafood products as well as the potential for labor abuse and unsafe working conditions onboard fishing vessels.

1 *United Nations Office on Drugs and Crime:* https://www.unodc.org/documents/about-unodc/Campaigns/Fisheries/focus_sheet_PRINT.pdf
2 *The Guardian:* https://www.theguardian.com/global-development/2014/jun/10/supermarket-prawns-thailand-produced-slave-labour
3 *Agnew et al:* https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0004570
4 *United Nations Office on Drugs and Crime:* https://www.unodc.org/documents/about-unodc/Campaigns/Fisheries/focus_sheet_PRINT.pdf
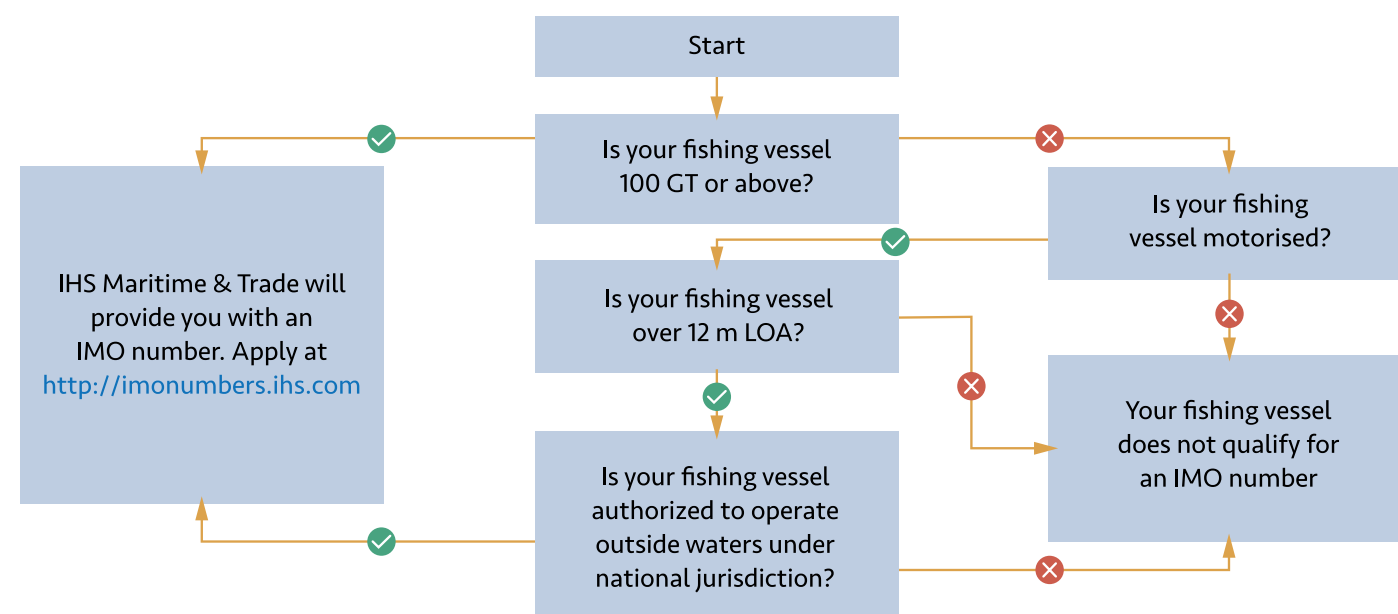
IMO NUMBERS

Monitoring and enforcing the activities of vessels fishing on the high seas is difficult, particularly due to the lack of mandatory, permanent, unique vessel identifiers (UVIs). One of the principal ways that vessels avoid enforcement and profit from their illicit activity is by quickly and easily changing identity, ownership, or flag State (country of registration). This often happens while the vessel is at sea, making it difficult for authorities to keep track of the vessel's identity and monitor its activities across the globe. Even if a vessel is caught fishing illegally, it can change its identity and show up in a port on the other side of the world without repercussion. UVIs establish a permanent identification number for vessels regardless of changes in name, ownership, or flag State. Currently, the most widely accepted and supported UVI globally is the IMO Ship Identification Number Scheme. NGOs such as the Environmental

Justice Foundation have listed country mandates to require IMO numbers as a key step in addressing IUU fishing on a global scale.[5]

The IMO numbering scheme is widely recognized by national governments, regional fishery management organizations (RFMOs), the IMO, and the FAO as the best available global identification system for ships. The scheme, administered on behalf of the IMO by IHS Markit, assigns vessels a unique seven-digit number that stays with the vessel until it is scrapped or decommissioned.[6] The IMO number is available free of charge for any fishing vessel greater than 100GT, regardless of where it fishes, and for any fishing vessel 12 meters or greater in overall length or of non-steel hull construction that is authorized to operate outside the waters under the jurisdiction of the flag State - i.e. on the high seas or in another country's 200-mile exclusive economic zone (EEZ).

Figure 1: IMO Number Eligibility [7]

How companies can support IMO numbers:

Requiring all eligible vessels, especially those engaging in at-sea transshipment, to possess an IMO number will result in improved transparency, helping to close critical information gaps, support traceability efforts, and reinforce human rights improvements. Furthermore, companies can encourage Flag States to provide IHS Markit with entire registration list, and in the process of 'block allocation' all eligible vessels will be allocated IMO numbers efficiently and free of charge.

Status and current challenges to implementation

As of May 2017, 11 major RFMOs have required IMO numbers for eligible vessels wishing to fish within their jurisdictions.[8]

Vessel owners can use Figure 1 (provided via the Food and Agriculture Organisation (FAO) report on the marking and identification of fishing vessels) to help identify if their fleet is eligible for IMO number allocation. Additionally, supply chain actors further up the chain can use these questions to determine whether all eligible vessels have adopted the IMO number scheme, and require adoption where vessels are eligible. Existing IMO numbers for vessels can be found on websites maintained by ISSF and others.

5 *Environmental Justice Foundation:* https://ejfoundation.org//resources/downloads/Transparency-report-final.pdf

6 *International Maritime Organization:* http://www.imo.org/en/OurWork/MSAS/Pages/IMO-identification-number-scheme.aspx

7 FAO. 2017. The marking and identification of fishing vessels. Rome. (also available at www.fao.org/3/a-i7783e.pdf)

8 *IUU Watch:* http://www.iuuwatch.eu/wp-content/uploads/2017/05/IMO-Numbers-FINAL-1-High-Singles.pdf

PUBLIC VESSEL LISTS

An integral step in improving vessel transparency globally is the development, expansion, and adoption of publicly available vessel lists. The focus of this paper is on four of the largest and most impactful lists - The UN FAO *Global Record*, the ISSF *ProActive Vessel Register*, the *IUU Vessel List*, and the EU's *WhoFishesFar*. Although these initiatives differ in scope and methodology, they all support improvements in transparency and traceability.

Public vessel lists help companies and NGOs support the identification of IUU vessels and potential trafficking and forced labor cases. Inspectors can use vessel lists when carrying out risk analyses and inspections of vessels and/or catches, and flag State administrations can use them to check a vessel's history before issuing a flag. This practice may avoid double flagging or flag hopping – which can be used by IUU fishers to avoid capture. Though all public vessel list data is managed by State administrations, seafood companies can work with State administrations and appropriate public vessel list organizations to contribute to publicly available vessel data.

The Global Record

The Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (the Global Record) is "a global initiative that primarily involves state authorities and RFMOs in compiling an online comprehensive and updated repository of vessels involved in fishing operations."[9] Inclusion in the Global Record is built on several key data categories – UVI, flag State, vessel name, international radio call sign (IRCS), length overall (LOA), gross tonnage (GT), and vessel type, though not all data fields are required for entry into the system at this time. These strategic

vessel data are collected directly from State authorities and RFMOs ensuring that the list is trustworthy and verifiable.

Currently, the most widely accepted UVI is an IMO number, which limits the possible number of entrants to the platform (see aforementioned IMO number requirements). To date, 49 States have submitted information to the global record, totaling more than 8,400 vessels and equating to one third of the estimated eligible vessels globally.[10] To preserve data integrity and quality, the Global Record only accepts information provided directly from State administrations. Although this means that companies are unable to upload their specific data into the Global Record, the data is still accessible to a variety of stakeholder groups including RFMOs, NGOs, retailers, suppliers, and consumers through the public platform dashboard.[11]

IUU Vessel List:

The IUU Vessel List maintained by Trygg Mat Tracking (TMT), is an online resource that compiles up-to-date information on IUU fishing vessels that have either been published by RFMOs and vessels, or that have been subject to an Interpol Purple Notice.[12] The site contains both current and past information on fishing vessel activities ensuring that historical activities of each vessel are tracked and recorded. Currently, there are more than 300 fishing vessels listed on the IUU Vessel List.

WhoFishesFar

WhoFishesFar publicly discloses information on the fishing vessels and companies that operate in third-country waters or on the high seas under the European Union's (EU) Fishing Authorisation Regulation (FAR). The website helps promote

institutional transparency and accountability of the activities of the EU fleet's activities in waters outside the EU.[13]

Currently, WhoFishesFar contains a list of more than 23,000 fishing vessels from 27 countries, including more than 1,000 from non-EU countries that operate in EU waters. Users can also use the site to access international fishing agreements, as well as the gear type used by listed vessels.

ISSF Proactive Vessel Register

The ISSF ProActive Vessel Register (PVR) is a voluntary database that enables tuna vessels of all sizes and gear types to demonstrate how they support sustainable tuna fisheries through their own practices.[14] ISSF participating companies purchasing skipjack, yellowfin, or bigeye tuna must require large scale purse seine vessels (355 meters or more) from which they source product, and associated supply and tender vessels, to be listed on the PVR.[15] Furthermore, participating companies purchasing longline-caught albacore, yellowfin, or bigeye tuna are required to register vessels by June 1, 2019, and publicly state an intent to increase the percentage of purchases from PVR-registered longline vessels (and report out on the percentage) in 2020.[16]

The PVR identifies compliance or non-compliance with specific best practices as determined by independent, third-party audits. The PVR currently represents around 70-80 percent of large scale tuna purse seine vessels, which represent around 50 percent of the global tuna catch. Because the list is voluntary, vessels usually agree to participate when there is a business incentive to do so.

How companies can support public vessel lists:

Companies can request that vessels in their supply chains participate in public vessel lists and use the IUU vessel list to verify that they are not sourcing from IUU fishing vessels. Seafood buyers can also leverage the PVR to identify and purchase from responsible tuna fishers. In addition, companies can further promote transparency by encouraging State administrations to participate in the Global Record and publish publicly available lists of licensed and authorized fishing vessels online. The EU, Ghana, Thailand, and Taiwan are all examples of states currently adopting this strategy.

9   *UN FAO:* http://www.fao.org/global-record/background/about/en/
10 *UN FAO:* http://www.fao.org/global-record/news-events/detail/en/c/1144665/
11 *UN FAO::* http://www.fao.org/global-record/news-events/detail/en/c/1144937/
12 *IUU Vessel List:* http://iuu-vessels.org/
13 *WhoFishesFAR:* http://www.whofishesfar.org/
14 *ISSF:* https://iss-foundation.org/knowledge-tools/publications-presentations/infographics/download-info/benefits-for-tuna-fishers-of-joining-the-proactive-vessel-register-pvr/
15 *ISSF:* https://iss-foundation.org/what-we-do/verification/conservation-measures-commitments/
16 *ISSF:* https://iss-foundation.org/what-we-do/verification/conservation-measures-commitments/proactive-vessel-register-7-5-purchases-from-pvr-vessels-longline/

INTERNATIONAL AGREEMENTS

International agreements – which require a number of countries to agree to implement global standards – can be used as an important tool to address vessel transparency cooperatively and on a larger scale, as it can be challenging to solve complex, global issues on an individual basis.[17,18] A piece of legislation with sufficient country support can translate into customary international law. Certain international agreements include aspects of monitoring in their provisions, however, the extent to which monitoring is required varies by agreement.

Why should companies support international agreements?

By supporting increased regulation, companies can call for stronger standards within their own supply chains and globally. Legislation related to fishing vessel safety, oversight, and transparency can help set minimum standards for fishing vessels, requiring companies to begin implementing supply chain oversight (if it is not already present) and benefiting companies who already implement good practices. The activities of fishing vessels are currently a murky point for many seafood supply chains; the implementation of laws and international agreements can contribute to making fishing activity more transparent while also strengthening and supporting vessel operations.

Which international agreements support fishing vessel transparency?

In order to strengthen global requirements for vessel oversight, especially with the goals of improving fisher health and safety, the International Maritime Organization has identified key agreements and/or conventions which work to improve vessel safety, environmental protection, and fishers' training and

rights.[19] While the list is not comprehensive or exclusive, the "four pillars" listed below are intended to work together as the backbone for reducing illegal activity and promoting fisher safety and welfare on an international stage, and many of the agreements receive broader support from research and advocacy groups.[20,21] A full list of ratifications by country is listed in **Table 4**.

- Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (Port State Measures Agreement or PSMA)
- ILO Work in Fishing Convention No. 188 (Work in Fishing Convention or ILO 188)
- Cape Town Agreement[22]
- Convention on Standards of Training, Certification, and Watchkeeping for Fishing Vessel Personnel (STCW-F)

In order to support increased safety and transparency, all four of these agreements should reach global ratification. As the Port State Measures Agreement is specifically designed to address IUU fishing, its use of monitoring is most apparent compared to the remaining three pillars. For that reason, the PSMA is the primary focus of attention and resources for this section.

How companies can support international agreements?

In order to facilitate the implementation of international legislation, stakeholders can engage through two primary means: direct country engagement or supply chain improvements. Direct country engagement consists of encouraging countries to ratify and implement the legislation, through advocacy letters, meetings, or other means. Encouraging supply chain

improvements consists of lowering barriers which may prevent ratification by countries, for example improving in-country conditions or practices to meet international legislation even before the treaty itself is ratified.

International agreements are most impactful when they have been ratified and implemented by a greater number of countries, especially those with a higher risk or greater sourcing importance. Unfortunately, in the case of some international agreements – such as ILO 188 and the Cape Town Agreement – fewer than a dozen countries have ratified.

In order to support global ratification or accession, companies can prioritize the countries for which ratification would be most impactful through a few of the methods found on the following pages.

The "four pillar" international agreements are intended to work together as the backbone for reducing illegal activity and promoting fishery safety and welfare.

17 Beth Simmons, "Compliance with International Agreements", Annual Review of Political Science, 1998, p. 80-81.

18 Bilder RB. 1989. International third party dispute settlement. Denver J. Int. Law Policy. 17(3):471–503

19 *IMO, "Enhancing Fishing Vessel Safety to Save Lives":* http://www.imo.org/en/MediaCentre/HotTopics/Pages/Fishing.aspx

20 *Pew Charitable Trusts:* https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2018/10/the-cape-town-agreement-explained?utm_campaign=2018-10-26+ION&utm_medium=email&utm_source=Pew

21 *Environmental Justice Foundation:* https://ejfoundation.org//resources/downloads/Transparency-report-final.pdf

22 To check the ongoing status of the PSMA, ILO 188, and the Cape Town Agreement, view Pew's data visualization of the three illegal-fishing focused pillars: https://www.pewtrusts.org/it/research-and-analysis/data-visualizations/2018/three-treaties-to-end-illegal-fishing

Prioritization of Country Engagement

Companies should prioritize engaging with countries that are of high sourcing importance – either globally or for the company's own supply chains – as well as countries from high risk regions that have not ratified the relevant international agreements. For more information regarding the ratifications and risks for top producer countries, please see Table 1.

Country Risk

- **Illegal fishing:** Efforts to increase transparency and oversight may have a greater positive impact in regions at a risk for illegal fishing activity. One resource that can be used to determine regions that may be more prone to illicit fishing activity is the EU IUU Regulation card list (Table 3).

- **Human trafficking:** The U.S. Trafficking in Persons (TIP) Report annually reports on governments' actions to curb trafficking through "Tier" rankings, with Tier 1 indicating that a country meets U.S. legal standards for the protection of trafficking victims, Tier 2 indicating that a country does not meet the U.S. standards but is making significant efforts to do so, and Tier 2 Watch List (WL) and Tier 3 indicating that a country should put forth additional efforts to meet U.S. standards and better combat severe forms of trafficking. Table 2 shows which countries have trafficking in seafood included in the 2018 TIP report.

Production

- **Marine capture:** Production also plays a major role in the effectiveness of ratification by each country. The FAO's State of Fisheries and Aquaculture report includes the top 25 major global producers for marine capture and harvest (Table 1).

- **Fishing fleet size:** In order to increase vessel transparency, ratification of key agreements from countries with larger vessel fleets will provide a greater impact. In addition to the aforementioned publicly available vessel lists, the Organization for Economic Co-operation and Development has fishing fleet statistics.[23]

Ratification

For a full list of the four key international agreements listed below and their ratification and signatories* by country, please see Table 4.

- **Port State Measures Agreement:** As the PSMA has the most relevance to vessel transparency, its ratification should be prioritized by countries landing the greatest volume and value of fish in their ports. — In force, 56 States and the EU

- **Cape Town Agreement:** The Cape Town Agreement needs additional ratifications in order to enter into force, making it a priority agreement. — Not yet in force, 10 states

- **Work in Fishing Convention:** While it has entered into force, additional ratifications are needed to gain a more global implementation. — In force, 14 states

- **Standards of Training, Certification, and Watchkeeping for Fishing Vessel Personnel:** In order to facilitate the adoption of the four pillars of international agreements, more countries should also ratify STCW-F. — In force, 26 states

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[23] *Organisation for Economic Co-operation and Development:* https://read.oecd-ilibrary.org/agriculture-and-food/oecd-review-of-fisheries-country-statistics-2015_rev_fish_stat_en-2015-en#page19

*Signatories intend to become a party, but are not yet implementing the provisions of the international agreement.

Table 1: State of Fisheries and Aquaculture Report - Marine Capture Production

The FAO's State of Fisheries and Aquaculture Report (SOFIA)[24] publishes the top 25 major producer countries, outlined below in order of global top producer (China) to 25th producer country (Denmark).

Country Name (SOFIA Top 25: Marine Capture Production)	Trafficking In Persons (Tier Placement)	European Union Card List	PSMA	ILO 188	CTA *not in force*	STCW-F
China	3					
Indonesia	2		Ratified			
United States of America	1		Ratified			
Russia	3		Signatory			Ratified
Peru	2		Ratified			
India	2					
Japan	1		Ratified			
Vietnam	2	Yellow				
Norway	1		Ratified	Ratified	Ratified	Ratified
Philippines	1		Ratified			
Malaysia	2WL					
Chile	1		Ratified			
Morocco	2			Ratified		Ratified
Korea, Republic of	1		Ratified			
Thailand	2		Ratified	Ratified		
Mexico	1					
Myanmar	3		Ratified			
Iceland	2		Ratified		Ratified	Ratified
Spain	1					Ratified
Canada	1		Signatory			Ratified
Taiwan	1	Yellow				
Argentina	1		Ratified			
Ecuador	2					
United Kingdom	1		Ratified			
Denmark	1		Ratified		Ratified	Ratified

[24] *UN FAO:* http://www.fao.org/state-of-fisheries-aquaculture/en/

MAP OF RATIFICATIONS

Figure 2: Map of Ratifications for Four International Agreements

— **PSMA**

— **Work in Fishing Convention**

— **Cape Town Agreement**

— **STCW-F**

Countries with One Ratification

Albania
Angola
Argentina
Australia
Bahamas
Barbados
Bosnia and
    Herzegovina
Cabo Verde
Canada
Chile
Costa Rica
Cuba
Djibouti
Dominica
Estonia
Gabon
Gambia
Germany
Ghana
Grenada
Guinea
Guyana
Indonesia
Japan
Libya
Kenya
Kiribati
Korea, Republic of
Latvia
Madagascar

Maldives
Mauritius
Montenegro
Mozambique
Myanmar
Nauru
Oman
Panama
Peru
Philippines
Poland
Portugal
Romania
Russia
Saint Lucia
Saint Vincent and
    the Grenadines
Sao Tome and Principe

Seychelles
Somalia
Spain
Sri Lanka
Sudan
Syria
Togo
Tonga
Turkey
Ukraine
United Kingdom
United States of
    America
Urugruay
Vanuatu

Countries with Two Ratifications

Belgium
Lithuania
Mauritania
Morocco
Netherlands
New Zealand
Palau
Saint Kitts and Nevis
Senegal
Sierra Leone
Thailand

Countries with Three Ratifications

Congo Republic
Denmark
France
Iceland
Namibia

Countries with Four Ratifications

Norway
South Africa

*Please refer to **page 26** for the complete ratification status of all countries that are party to, signatories of, or have ratified the "four pillars."*

ADDITIONAL MULTI-LATERAL COLLABORATIONS

## Fisheries Transparency Initiative

The Fisheries Transparency Initiative (FiTI) is a global, country-centered initiative created by a diverse stakeholder group to increase "transparency and participation in fisheries governance for the benefit of a more sustainable management of marine fisheries."[25] FiTI is a voluntary commitment comprised of a set of 12 requirements that outline the information that should be made publically available, such as a public registry of national fisheries laws, regulations and official policy documents, and the publication of all foreign fishing access agreements.[26] To date, three countries have committed to FiTI - Indonesia, Mauritania, and Senegal.

One aspect of FiTi that makes it unique is that the FiTI Standard does not require public authorities to have data for all 12 requirements prior to joining the initiative, but States that lack certain information are required to provide what they do have, assess where the gaps are, and develop remediation plans, and demonstrate improvement over time.

For seafood companies, engagement with FiTI can happen in three specific ways. The first is that companies can promote the adoption of FiTI in source countries. Companies can also support countries in becoming and remaining FiTI compliant through transparent data sharing. Finally, companies can support the FiTI initiative financially through direct contributions to the initiative.

Figure 3: FiTI [27]
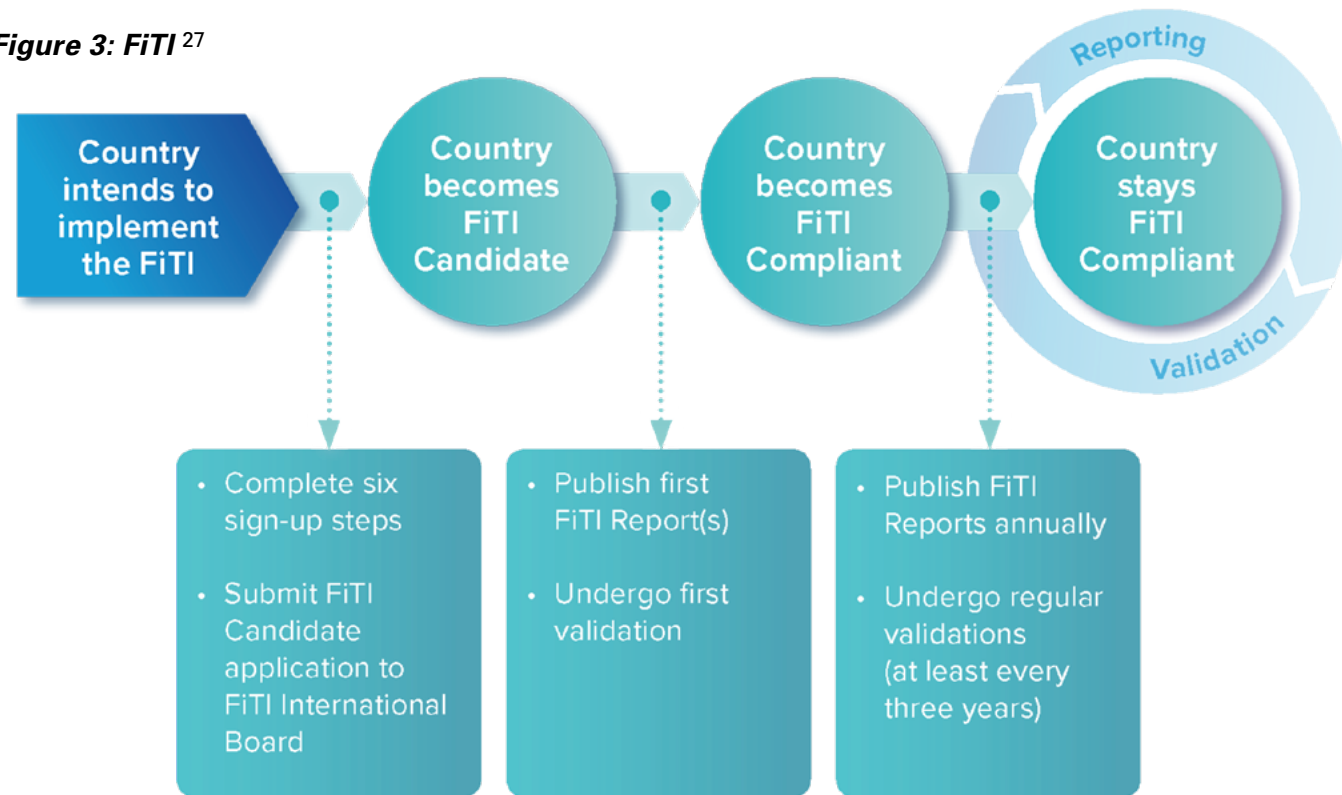
VESSEL MONITORING

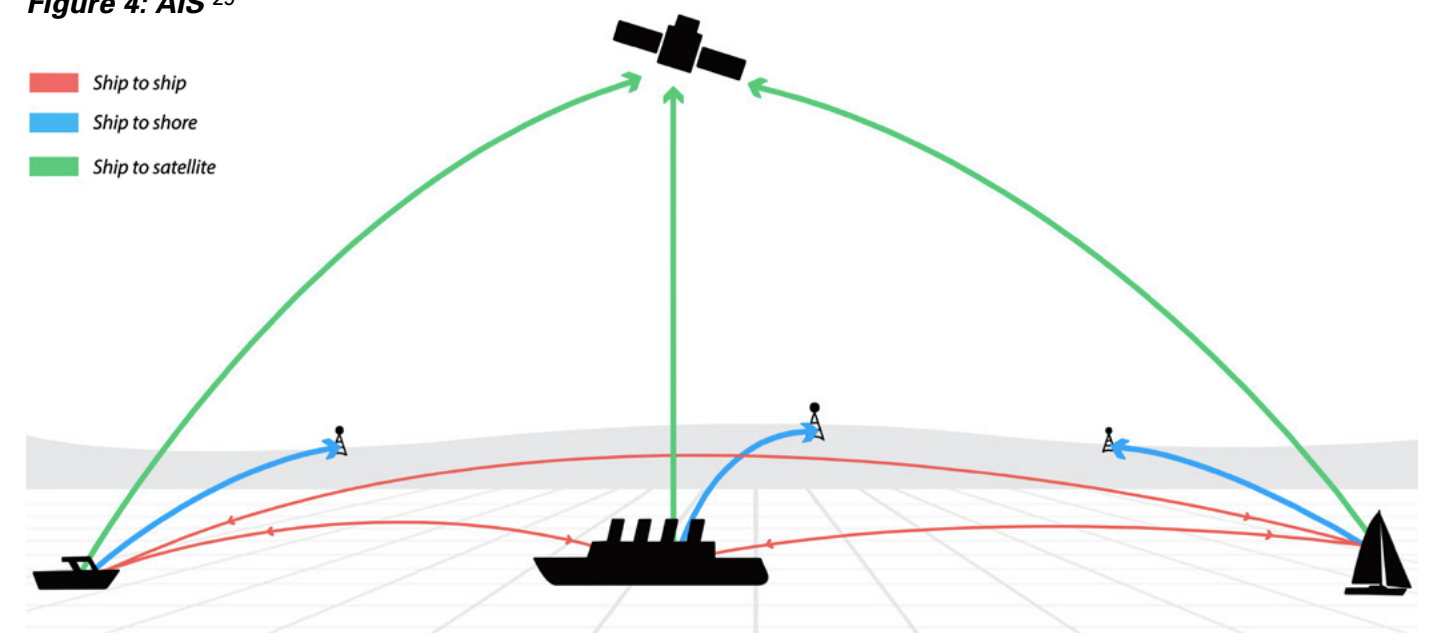## *How companies can support vessel monitoring initiatives:*

Vessel monitoring is an important component of increasing transparency at sea. Investment in vessel monitoring can improve product traceability by monitoring and recording fishing vessel activities while at-sea and help to mitigate potential risks of IUU fishing or human and labor rights abuses in supply chains.

Automatic Identification System

Automatic Identification System (AIS) is a satellite system that relies on open data access to allow anyone with an AIS system to send or receive information, including location data.[28] The primary purpose of AIS technology is navigation, ensuring vessel safety and avoiding collisions, but instances of its use in monitoring the activities of fishing operations at sea have grown in recent years. There are nearly 60,000 commercial fishing vessels using AIS technology today, and AIS data is being leveraged by initiatives, such as Global Fishing Watch, to improve monitoring of fishing vessels at sea. Despite this growth, AIS technology should not be seen as a standalone solution for monitoring fishing activity, but part of a suite of solutions companies can utilize.

Figure 4: AIS [29]

25 *FiTI:* http://fisheriestransparency.org/about-the-initiative
26 *FiTI:* http://fisheriestransparency.org/fiti-standard
27 *FiTI:* http://fisheriestransparency.org/for-countries/overview
28 *WWF:* http://wwf.panda.org/our_work/oceans/smart_fishing/how_we_do_this/good_governance2/transparent_seas_/satellite_tracking_via_ais_/
29 *Sat-Trak:* https://sat-trak.com/

Vessel Monitoring System

Vessel Monitoring System (VMS) is a type of fisheries surveillance, in which equipment is installed on fishing vessels and provides information about the vessels' position and activity to state, and sometimes RFMO, authorities.[30] This alternative method of vessel monitoring increases transparency by providing near real-time data, unlike log books or interviews in port. Although VMS is a basic requirement for some State administrations, its adoption is not universal and many seafood supply chains lack this sort of near real-time management. To date, VMS technology has been leveraged in regulating the fishing industry in many locations, including throughout the West African coast and in Thailand.[31]

Figure 6: Vessel Monitoring System [32]

Source: European Union, 1995-2016, © 2016 The Pew Charitable Trusts
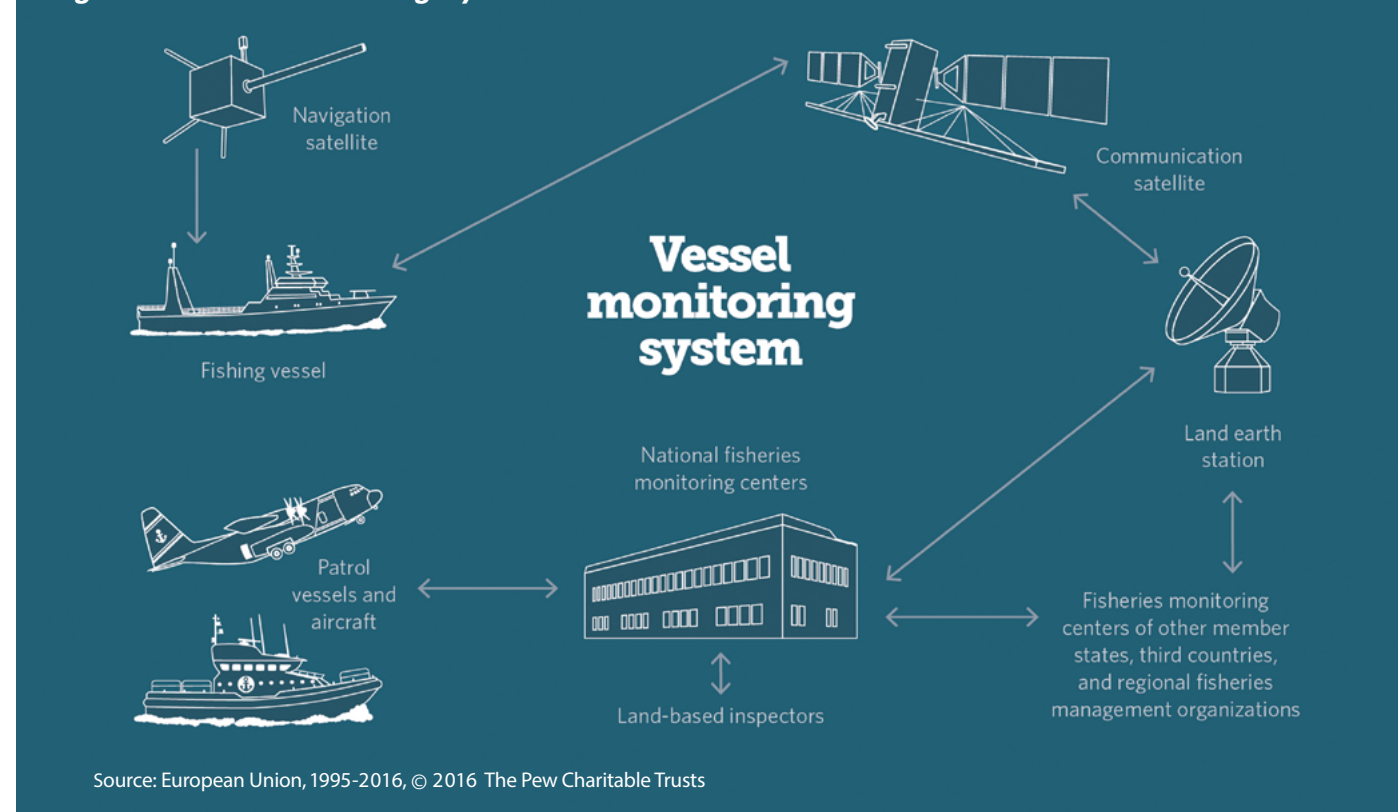
Electronic Monitoring

Electronic Monitoring (EM) involves the use of cameras or other electronic systems to collect data on fishing vessel activity for management and enforcement purposes. EM data supports a variety of areas of fishery management including catch enumeration, ensuring compliance with bycatch mitigation practices, monitoring labor practices on board the vessel, and protected area compliance.[33] Since the very first EM trial, the use of EM has grown significantly to include more than 1,000 fishing vessels in 30 different fisheries.[34]

30 *FAO*: http://www.fao.org/fishery/vms/en
31 *EJF*: https://ejfoundation.org/news-media/2017/vessel-monitoring-training-thailand-ejf
32 *Pew Charitable Trusts*: https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2016/05/tracking-fishing-vessels-around-the-globe
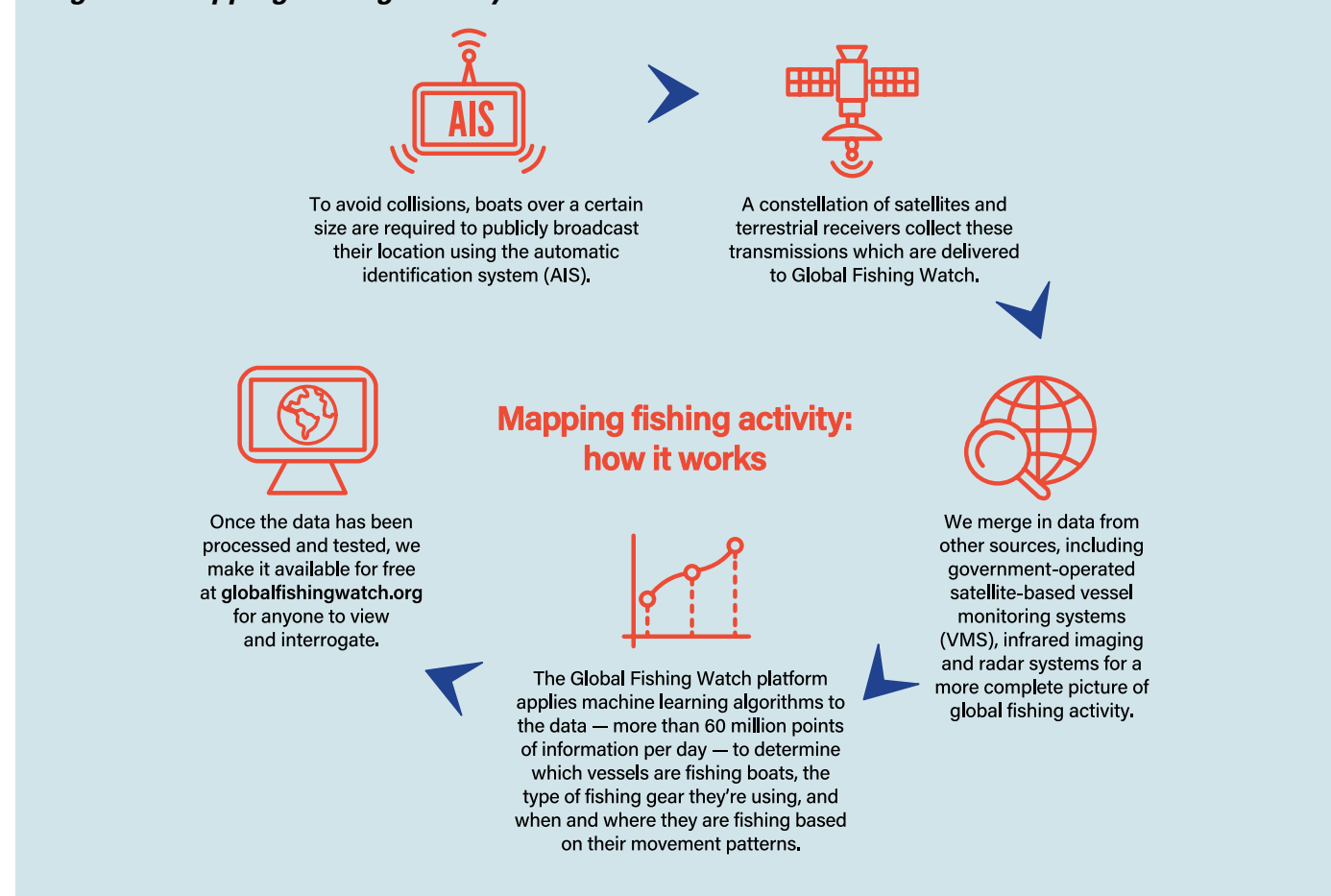33 *CEA*: https://www.ceaconsulting.com/wp-content/uploads/CEA-EM-Report-9-10-18-download.pdf
34 *CEA*: https://www.ceaconsulting.com/wp-content/uploads/CEA-EM-Report-9-10-18-download.pdf

Global Fishing Watch

Global Fishing Watch promotes transparency in the seafood industry by using technology to visualize, track, and share data about global fishing activity in near real-time and for free.[35] The information on the platform, sourced using AIS data, VMS data, other available data such as satellite imagery and movement patterns, may help companies more effectively track and monitor vessel activity.

An important aspect to the Global Fishing Watch approach is that the information is all available to the public. All it takes is internet access for anyone to follow the movements and data of nearly 60,000 commercial fishing vessels. The data currently available shows activity from January 1, 2012 up until 72 hours prior to a user the accessing the site.[36]

Figure 5: Mapping Fishing Activity [37]

To avoid collisions, boats over a certain size are required to publicly broadcast their location using the automatic identification system (AIS).

A constellation of satellites and terrestrial receivers collect these transmissions which are delivered to Global Fishing Watch.

Mapping fishing activity: how it works

We merge in data from other sources, including government-operated satellite-based vessel monitoring systems (VMS), infrared imaging and radar systems for a more complete picture of global fishing activity.

The Global Fishing Watch platform applies machine learning algorithms to the data — more than 60 million points of information per day — to determine which vessels are fishing boats, the type of fishing gear they're using, and when and where they are fishing based on their movement patterns.

Once the data has been processed and tested, we make it available for free at globalfishingwatch.org for anyone to view and interrogate.

35 *Global Fishing Watch*: http://globalfishingwatch.org/
36 *Global Fishing Watch*: http://globalfishingwatch.org/map-and-data/technology
37 *Global Fishing Watch*: http://globalfishingwatch.org/wp-content/uploads/GFW_FactSheet_1.pdf/

GUIDANCE FOR SEAFOOD COMPANIES

Improving vessel monitoring and transparency is an important step towards encouraging a legal seafood supply. For seafood companies interested in improving vessel transparency, actions can be taken with vessel owners, through sourcing and supply chain practices, and through engagement with governments and RFMOs. While the recommendations identified in this paper focus on industrial-size vessels,* many of the actions and guidelines (including the implementation of vessel monitoring systems) can be applied to smaller vessels as well.

Taking action on the water

The following actions are recommended for vessel owners to take with their direct policies and personnel.

- Encourage State administrations to contribute publicly available vessel data to initiatives such as The Global Record and WhoFishesFar
- Participate in voluntary public vessel lists, such as the ISSF ProActive Vessel Register, when applicable
- Require operational vessel monitoring systems onboard vessels, especially those participating in at-sea transshipment, and provide data to the relevant authorities in near real-time
- Invest in AIS, EM, or backup reporting systems to supplement VMS data
- Request an IMO number and register all applicable fishing and carrier vessels with IHS Markit
  — Verify that vessels are educated on IMO display best practices and monitor to ensure compliance[38]
- Meet the standards outlined in key international agreements, or implement practices that lead to vessels being compliant with these agreements, including the following:
  — Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing
  — ILO Work in Fishing Convention No. 188
  — Convention on Standards of Training, Certification, and Watchkeeping for Fishing Vessel Personnel
  — Cape Town Agreement

Taking action through sourcing and supply

The following actions are recommended for companies sourcing from fishing vessels.

- Support and incentivize transparent practices
  — Adopt sourcing policies that require all supplier fishing vessels (as well as transshipment or carrier vessels) to have IMO numbers and be registered with IHS Markit
  — Require vessel monitoring systems to be installed on all applicable vessels in the supply chain, and verify by periodically requesting evidence of position reporting
  — Request that supply chains implement global standards that align with key international agreements, such as ILO 188, Cape Town Agreement, and STCW-F, as well as the Fisheries Transparency Initiative (FiTI) standards
  — Require fishing vessels in the supply chain to implement practices which would support PSMA compliance
- Verify sourcing information by collecting key data elements (KDEs) about the source of each product, such as location of fishing or farming, flag of the vessel, IMO number, method of fishing, and monitoring systems used
  — Prioritize products and suppliers for a more in-depth review if transparent sourcing data cannot be collected
  — Identify where further improvements may be needed and work with suppliers to develop a corrective action plan to address gaps

Taking action through advocacy

The following actions are recommended for companies to take by engaging with outside agencies or initiatives.

- Encourage data transfer to the public vessel lists like the Global Record and the ISSF PVR
- Request that sourcing countries consider ratifying ILO 188, PSMA, Cape Town Agreement, and STCW-F, and assess the value of joining FiTI
  — Write or sign on to advocacy letters in support of improvements to vessel transparency
  — Participate in RFMO or government meetings in order to support the adoption of international agreements and increased monitoring and transparency
  — Learn more about barriers to implementation

For seafood companies interested in improving vessel transparency, actions can be taken with vessel owners, through sourcing and supply chain practices, and through engagement with governments and regional fisheries management organizations.

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* "Industrial sized" includes vessels which are > 12 meters in length or > 100 gross tonnage in weight.
38 *FAO:* http://www.fao.org/3/a-i7783e.pdf

APPENDICES

Table 2: Trafficking in Persons Report and International Agreements

The countries mentioned at right include only those countries which the 2018 U.S. Trafficking in Persons report[39] mentions in relation to trafficking in fishing or seafood in one or more country summary. Countries receiving a Tier 2 Watch List (2 WL) or Tier 3 ranking do not comply with the Trafficking Victims Protection Act standards and are not making significant efforts to do so or still have a significant or increasing challenges combating trafficking in persons. Information regarding whether each country has ratified the four pillars -- Port State Measures Agreement (PSMA),[40] Work in Fishing Convention (ILO 188),[41] Cape Town Agreement (CTA), and Standards of Training, Certification, and Watchkeeping for Fishing Vessel Personnel (STCW-F)[42] – is also included.

International agreements promote vessel transparency by requesting information regarding the vessels themselves, as well as by strengthening the procedures necessary to conduct well-functioning vessel operations.

39 *U.S. Department of State:* https://www.state.gov/j/tip/rls/tiprpt/

40 *UN FAO:* http://www.fao.org/port-state-measures/background/parties-psma/en/

41 *International Labor Organization:* https://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0::NO:11300:P11300_INSTRUMENT_ID:312333

42 *International Maritime Organization:* http://www.imo.org/en/About/Conventions/StatusOfConventions/Pages/Default.aspx

Country Name	Trafficking In Persons (Tier Placement)	PSMA	ILO 188	CTA *not in force*	STCW-F
Taiwan	1				
Thailand	2	Ratified	Ratified		
Cambodia	2				
Vietnam	2				
Saint Vincent and the Grenadines	2	Ratified			
Trinidad and Tobago	2				
Malawi	2				
Liberia	2WL				
Bangladesh	2WL				
Fiji	2WL				
Madagascar	2WL				
Guinea	2WL	Ratified			
Haiti	2WL				
Mongolia	2WL				
Seychelles	2WL	Ratified			
Sierra Leone	2WL	Signatory			In Force
South Africa	2WL	Ratified	Ratified	Ratified	In Force
Suriname	2WL				
Malaysia	2WL				
Korea, Dem. People's Republic of	3				
Laos	3				
Belize	3				
Burma	3				
Burundi	3				
Comoros	3				
Congo Republic	3			Ratified	In Force
Gabon	3	Ratified			
Mauritania	3				In Force
Papua New Guinea	3				
China	3				

Table 3: European Union Card List and International Agreements

The EU IUU Regulation carding process[43] was created to identify non-cooperating countries in a fight against IUU fishing, with "yellow" card countries receiving a warning and opportunity to implement systems to combat IUU fishing. "Red cards" are issued for countries that do not implement systems after the "yellow card" sanction, and become subject to sanctions on imports of the product to the EU. Information regarding whether each country has ratified the four pillars – PSMA,[44] Work in Fishing Convention,[45] Cape Town Agreement, and STCW-F[46] – is also included.

Country Name	European Union Card List	PSMA	ILO 188	CTA not in force	STCW-F
Cambodia	Red				
Comoros	Red				
Kiribati	Yellow				Ratified
Liberia	Yellow				
Saint Kitts and Nevis		Ratified		Ratified	
Saint Vincent and the Grenadines	Red	Ratified			
Sierra Leone	Yellow	Ratified			
Taiwan	Yellow				
Trinidad and Tobago	Yellow				
Vietnam	Yellow				

43 *IUU Watch:* http://www.iuuwatch.eu/map-of-eu-carding-decisions/
44 *UN FAO:* http://www.fao.org/port-state-measures/background/parties-psma/en/
45 *International Labor Organization:* https://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0::NO:11300:P11300_INSTRUMENT_ID:312333
46 *International Maritime Organization:* http://www.imo.org/en/About/Conventions/StatusOfConventions/Pages/Default.aspx

Table 4: Ratification of Four International Agreements

The below table shows the ratification status of all countries that are party to, signatories of, or have ratified the "four pillars" - PSMA,[47] Work in Fishing Convention,[48] Cape Town Agreement, and STCW-F.[49] Countries who have not ratified or signed any of the four agreements are not listed below.

Country Name	PSMA	ILO 188	CTA not in force	STCW-F
Albania	Ratified			
Angola	Signatory	Ratified		
Argentina		Ratified		
Australia	Ratified			
Bahamas	Ratified			
Barbados	Ratified			
Belgium			Ratified	Ratified
Benin	Signatory			
Bosnia and Herzegovina		Ratified		
Brazil	Signatory			
Cabo Verde	Ratified			
Canada	Signatory			Ratified
Chile	Ratified			
Congo Republic		Ratified	Ratified	Ratified
Costa Rica	Ratified			
Cuba	Ratified			
Denmark	Ratified		Ratified	Ratified
Djibouti	Ratified			
Dominica	Ratified			
Estonia		Ratified		
France	Ratified	Ratified	Ratified	
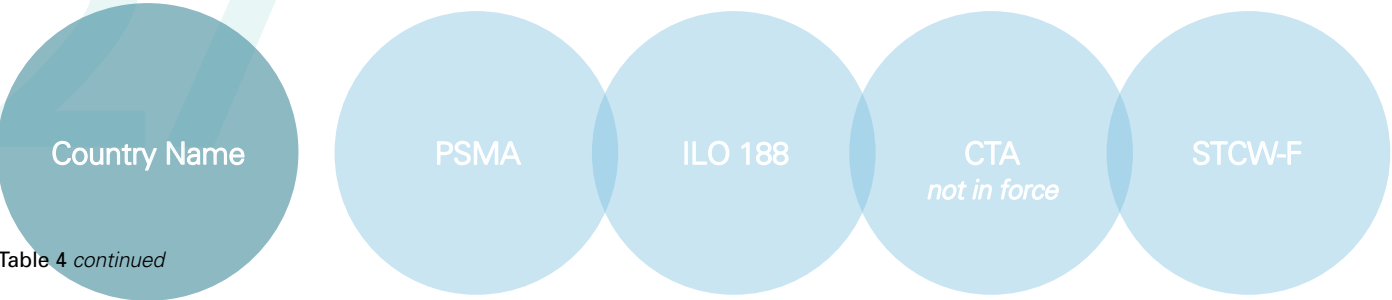
Country Name	PSMA	ILO 188	CTA *not in force*	STCW-F
Gabon	Ratified			
Gambia	Ratified			
Germany			Ratified	
Ghana	Ratified			
Grenada	Ratified			
Guinea	Ratified			
Guyana	Ratified			
Iceland	Ratified		Ratified	Ratified
Indonesia	Ratified			
Japan	Ratified			
Kenya	Ratified			
Kiribati				Ratified
Korea, Republic of	Ratified			
Latvia				Ratified
Lithuania		Ratified		Ratified
Libya	Ratified			
Madagascar	Ratified			
Maldives	Ratified			Ratified
Mauritania	Ratified			
Mauritius	Ratified			
Montenegro	Ratified			
Morocco		Ratified		Ratified
Mozambique	Ratified			
Myanmar	Ratified			
Namibia	Ratified	Ratified		Ratified
Nauru				Ratified
Netherlands			Ratified	Ratified
New Zealand	Ratified			Ratified
Norway	Ratified	Ratified	Ratified	Ratified
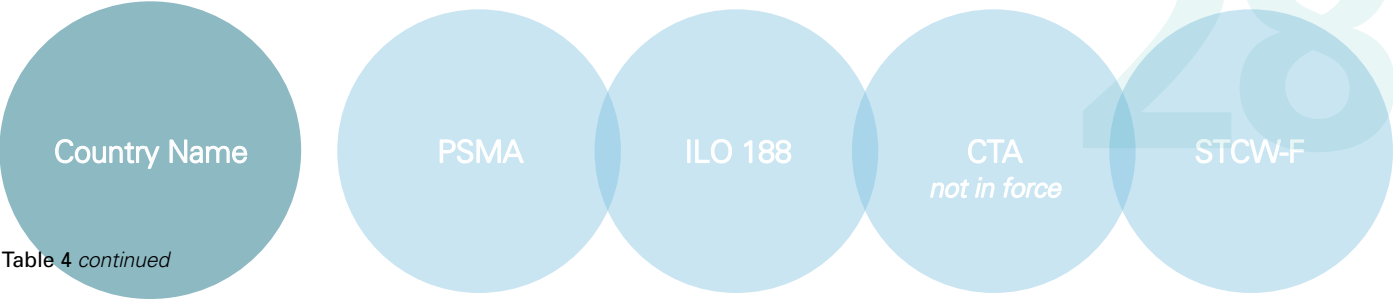
Country Name	PSMA	ILO 188	CTA *not in force*	STCW-F
Oman	Ratified			
Palau	Ratified			Ratified
Panama	Ratified			
Peru	Ratified			
Philippines	Ratified			
Poland				Ratified
Portugal				Ratified
Romania				Ratified
Russia	Signatory			Ratified
Saint Kitts and Nevis	Ratified		Ratified	
Saint Vincent and the Grenadines	Ratified			
Samoa	Signatory			
Sao Tome and Principe	Ratified			
Senegal	Ratified	Ratified		
Seychelles	Ratified			
Sierra Leone	Ratified			Ratified
Somalia	Ratified			
South Africa	Ratified	Ratified	Ratified	Ratified
Sri Lanka	Ratified			
Sudan	Ratified			
Thailand	Ratified	Ratified		
Togo	Ratified			
Tonga	Ratified			
Turkey	Ratified			
United Kingdom		Ratified		
United States of America	Ratified			
Uruguay	Ratified			
Vanuatu	Ratified			

47 *UN FAO:* http://www.fao.org/port-state-measures/background/parties-psma/en/

48 *International Labor Organization:* https://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0::NO:11300:P11300_INSTRUMENT_ID:312333

49 *International Maritime Organization:* http://www.imo.org/en/About/Conventions/StatusOfConventions/Pages/Default.aspx