

OUT OF THE SHADOWS

Improving transparency in global fisheries to stop illegal, unreported
and unregulated fishing





The Environmental Justice Foundation (EJF)

is a UK-based organisation working internationally to address threats to environmental security and their associated human rights abuses.

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Out of the shadows. Improving transparency in global fisheries to stop illegal, unreported and unregulated fishing.

OUR MISSION

To Protect People and Planet

EJF believes environmental security is a human right.

EJF strives to:

- Protect the natural environment and the people and wildlife that depend upon it by linking environmental security, human rights and social need
- Create and implement solutions where they are needed most – training local people and communities who are directly affected to investigate, expose and combat environmental degradation and associated human rights abuses
- Provide training in the latest video technologies, research and advocacy skills to document both the problems and solutions, working through the media to create public and political platforms for constructive change
- Raise international awareness of the issues our partners are working locally to resolve.

Oceans campaign

To protect the marine environment, its biodiversity and the livelihoods dependent upon it.

EJF's oceans campaign aims to eradicate illegal, unreported and unregulated (IUU) or 'pirate' fishing. We are working to create full transparency and traceability within seafood supply chains and markets. We actively promote improvements to policymaking, corporate governance and management of fisheries along with consumer activism and market driven solutions.

Our ambition is to secure truly sustainable, well-managed fisheries and with this the conservation of marine biodiversity and ecosystems and the protection of human rights.

EJF believes that there must be greater equity in global fisheries to ensure developing countries and vulnerable communities are given fair access and support to sustainably manage their natural marine resources and the right to work in the seafood industry without suffering labour and human rights abuses.

We believe in working collaboratively with all stakeholders to achieve these goals.

For further information visit:

www.ejfoundation.org/what-we-do/oceans

Contents

Executive summary	4
Introduction	5
1. Transparency to assist in identifying vessels and monitoring their activities	7
1.1. Introducing a universal numbering scheme to establish vessels' identities and build a global database of vessels	7
1.2. Shedding light on vessels' movements through opening vessel monitoring to the public	9
1.3. Publishing key information on fishing vessels' identities and activities	11
1.4. Publishing information on sanctions against illegal, unreported and unregulated fishing and human trafficking	13
2. Transparency to improve accountability of vessel owners	14
2.1. Ending opacity in ownership and unaccountability facilitated by flags of convenience	14
2.2. Identifying who profits from IUU fishing operations through improving transparency on beneficial ownership	17
2.3. Identifying and sanctioning nationals involved in IUU fishing operations	19
3. Transparency to prevent IUU products from entering seafood supply chains	21
3.1. Ending unmonitored trans-shipments at sea	21
3.2. Gathering and storing fishing-vessel data digitally to further transparency in supply chains	24
3.3. Ratifying global treaties for more effective port state control	26
Conclusion	29

Abbreviations

AIS	Automatic identification system	IUU	Illegal, unreported and unregulated
DoF	Thai Department of Fisheries	KDE	Key data element
EEZ	Exclusive economic zone	LOA	Length overall
EITI	Extractive Industry Transparency Initiative	MCS	Monitoring, control and surveillance
EU	European Union	PSMA	FAO's Port State Measures Agreement
FAO	United Nations Food and Agriculture Organization	RFB	Regional fisheries body
FoC	Flag of convenience	RFMO	Regional fisheries management organisation
GT	Gross tonnage	VMS	Vessel monitoring system
ILO	United Nations International Labour Organization	UN	United Nations
ITF	International Transport Worker's Federation	UNCLOS	UN Convention on the Law of the Sea
IMO	United Nations International Maritime Organization	UNFSA	United Nations Fish Stock Agreement
		UVI	Unique vessel identifier

Executive Summary

- Illegal, unreported and unregulated (IUU) fishing presents a grave threat to the world's fish stocks, which are already on the brink of collapse. A third of stocks are being exploited at unsustainable levels, with a further 60% of fisheries on the edge, fished at maximally sustainable levels. Global losses from IUU fishing are estimated to be between US\$10 and US\$23.5 billion per year, and the practice is a major obstacle to achieving sustainable, legal and ethical fisheries.
- IUU fishing adversely affects the economic and social well-being of fishing communities, especially in countries where coastal communities rely heavily on fishing for food and livelihoods. For example, across West Africa, one of the regions with the highest levels of IUU fishing, fish is vital to food security, providing essential nutrition and accounting for over 50% of animal protein intake in countries such as Ghana and Sierra Leone. In the region, an estimated 6.7 million people depend directly on fisheries for food and livelihoods.
- Recognised worldwide as a major threat to the future of our oceans, combatting IUU fishing is a target of the United Nations Sustainable Development Goal 14 (life below water).
- A suite of measures is required to eradicate IUU fishing, from improved fisheries management to better corporate due diligence. Central to this is the need to achieve transparency throughout seafood supply chains and address the opaque environment in which illegal fishing and other criminal activities thrive. Enhanced transparency offers the most cost-efficient and effective means to identify illegal activities and IUU operators. It allows government agencies, corporate actors and other stakeholders to leverage limited assets to effectively combat IUU fishing.
- This report sets out ten global principles for transparency in fisheries. The specific aim is to provide clear guidance on necessary measures and highlight those which are economically viable, technologically available and logistically deliverable today. These measures are designed to: reinforce accountability of vessel owners; increase accessibility to actionable information; improve monitoring of vessels by states and drive transparency in seafood supply chains to prevent IUU products reaching markets.

These simple and low-cost transparency measures for states would together shed light on vessel identities, activities and ownership, making action against IUU fishing easier, cheaper and more effective, thereby delivering a substantial contribution toward securing sustainable, legal and ethical fisheries worldwide.

The ten measures

States should:

1. Immediately mandate International Maritime Organization (IMO) numbers for all eligible vessels, implement a national unique vessel identifier scheme for non-eligible vessels, maintain a vessel registry and provide all information to the United Nations Food and Agriculture Organization (FAO) Global Record of Fishing Vessels (that ultimately includes all eligible vessels over 12 metres length overall).
2. Require automatic identification systems for fishing vessels and/or make unedited vessel monitoring system data public with regular transmission intervals sufficient to ensure vessels can be effectively tracked.
3. Publish up-to-date lists of fishing licences and authorisations, as well as vessel registries.
4. Publish information about arrests and sanctions imposed on individuals and companies for IUU fishing activities, human trafficking and other related crimes.
5. Implement a ban on trans-shipments at sea unless they are pre-authorised and are subject to robust and verifiable electronic monitoring and are covered by a human observer scheme appropriate to the fishery.
6. Mandate and implement the near-term adoption of cost-effective digital tools that safeguard in a digital form key information on vessel registration, licenses, unloading records, catch location and information and crew documentation. These should be designed in such a way as to support a rapid move towards a universal, interoperable digital catch certification scheme.
7. Close open registries to fishing vessels and stop the use of flags of convenience by vessels fishing in their waters or importing to their markets.
8. Publish information about beneficial ownership in all public lists and require companies to provide information on true beneficial ownership when applying for a fishing licence, fishing authorisation or registration to their flag.
9. Include provisions in legislation to identify where nationals are supporting, engaging in or profiting from IUU fishing, and implement deterrent sanctions against them. This effort can be aided by a register of vessels owned by nationals but flagged to other countries.
10. Adopt international measures that set clear standards for fisheries vessels and the trade in fisheries products, including the FAO Port State Measures Agreement, the International Labour Organization Work in Fishing Convention (C188) and the IMO Cape Town Agreement.

Introduction

Box 1 | The role of the private sector

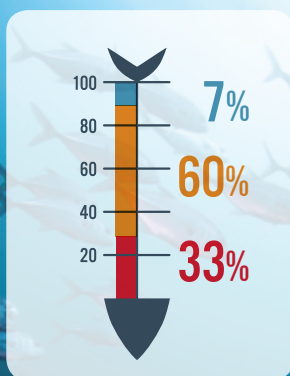
The support of the private sector is critical to the effectiveness of states' efforts to increase transparency and stop illegal fishing. Industry at all stages in the supply chain would benefit from the level playing field provided by this new global infrastructure of transparent fisheries management, lowering the cost of traceability and reducing the risk of supplying fish to consumers that is not sustainable, legal or ethical. In addition to supporting calls for states to adopt these ten measures, industry can take their own action to increase transparency within their supply chains. To support this process, EJF worked with retailers, processors and other NGOs to develop detailed recommendations in the form of a code of practice, PAS_1550¹.

Our seas and oceans cover 70% of our planet and contain from 50 to 80% of all life on earth². They produce more oxygen than all the world's forests and have absorbed over a third of the CO₂ that humans have emitted into the atmosphere since the beginning of the Industrial Revolution³. They are a primary source of food protein for some 3.2 billion people around the world. Yet, they are in a state of crisis, with 33% of stocks assessed by the United Nations Food and Agriculture Organization (FAO) found to be exploited at biologically unsustainable levels ('overfished'), with a further 60% maximally sustainably fished (formerly known as 'fully fished')⁴. Over-fishing and illegal, unreported and unregulated (IUU) fishing risk pushing the oceans' ecosystems into a state of total collapse, with devastating consequences for the marine environment and those who depend on it.

IUU fishing is broadly defined as the use of fishing methods or practices that contravene fisheries laws, regulations or conservation and management measures. Examples include fishing in closed areas or during closed seasons, targeting protected species, using prohibited fishing methods and fishing without a valid licence. These practices threaten marine biodiversity, undermine effective management of fish stocks and are one of the main impediments to achieving sustainable world fisheries⁵.

IUU fishing can occur in any fishery, from shallow coastal or inland waters to the high seas. However, it is often a particular issue in countries or areas where fisheries management is poorly developed, or where there are limited resources to enforce regulations. This commonly occurs in less developed regions, where fish can be the main source of animal protein and income for coastal communities⁶. Across West Africa, one of the regions with the highest levels of IUU fishing (estimated to be as high as 37% of all catch)⁷, fish is a vital source of essential micro-nutrients, protein, vitamins and minerals. It accounts for over half of animal protein intake in countries such as Ghana and Sierra Leone⁸. Across the region, an estimated 6.7 million people depend directly on fisheries for food and livelihoods⁹. In the face of rising poverty, coastal populations' reliance on fisheries for food and income is projected to increase in the coming years¹⁰. With fish stocks diminishing and global demand at an all-time high, vessels are turning to illegal fishing to minimise costs and maintain profits. Driven by the desire to reduce operating costs, IUU fishing is also often associated with trafficked or forced labour to crew vessels.

In Thailand, for example, decades of poor fisheries management resulted in massive over-fishing and illegal activities, with catches falling by an average of almost 80% between the 1960s and 2014. This, in turn, created economic pressures that drove the widespread use of forced, bonded and slave labour.



33% of stocks assessed by the FAO are found to be exploited at biologically unsustainable levels ('overfished'), with a further 60% maximally sustainably fished (formerly known as 'fully fished').

Exhausted fish stocks meant that vessels had to remain at sea longer and travel further for ever-diminishing returns. In turn, operators used human trafficking networks to crew their vessels with cheap migrant labour. Slavery in the industry, fuelled by the impacts of over-fishing, coincides with widespread pirate fishing, which is itself both a driver and a response to the overexploitation of fisheries¹¹.

IUU fishing and lack of transparency

It is in this context that IUU fishing is recognised worldwide as a major threat to the future of our oceans, and its eradication has been identified as a target of the United Nations Sustainable Development Goal 14 (life below water)¹². Tackling IUU fishing will require a broad portfolio of measures, from increased monitoring, control and surveillance (MCS) to strengthened corporate due diligence.

Many regulators and seafood buyers in the developed and developing world are aware of the devastating impacts of illegal fishing, but their efforts to remove IUU fish from their markets and supply chains are frustrated by a lack of transparency in the global fishing industry.

This lack of transparency is one of the most important enablers of IUU fishing. In addition to the often remote nature of fishing, the opacity and complexity of operations in the industry make it difficult to identify the 'actors' involved, including the fishing vessels themselves, the authorities responsible for overseeing their activities (flag states), the route of their product to market and their owners. The challenges in uncovering a vessel's illegal activities, both current and past, mean that illegal operators are at low risk of capture and sanction by control authorities.

EJF believes that increased transparency is the cornerstone in the fight against IUU fishing and the achievement of sustainable, legal and ethical global fisheries. This report highlights key governance measures designed to improve transparency in the fisheries sector and ultimately stop IUU fishing. Whilst a global effort to end IUU fishing is required, EJF believes that there is a range of economically viable, technologically available and logistically deliverable measures that states around the world could individually implement which, collectively, would shed light on vessel identities, activities and ownership, and make a fundamental difference in the fight to save our oceans and the people who depend on them. Leadership, political will and support for the necessary actions are, and will remain, paramount. Governments must recognise the scale of this problem and take the necessary steps to eradicate it. The recommendations in this report provide just such a set of simple, cost effective, deliverable actions that governments can take.

Estimates suggest that global IUU catches correspond to between 13% and 31% of reported fisheries production, with global losses from IUU estimated between US\$10 and US\$23.5 billion per year. In some regions this figure can be as high as 40% of total catch¹³.

Box 2 | IUU fishing, poor governance and corruption

Transparency is one of the key mechanisms to stop corruption through ensuring that public figures, civil servants, managers, directors and board members act visibly and report on their activities so that the general public can hold them to account. It also enhances the democratic rule of law by increasing trust in institutions and the politicians and officials who run them¹⁴.

In the management of our natural resources, it is key for the public to be able to find out where, when, by whom and most importantly by how much they are being exploited. Studies have demonstrated a significant relationship on a global scale between the level of IUU fishing and poor performance against World Bank indices of governance such as Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption¹⁵. Developing countries that rank poorly on the governance index have been found to be more vulnerable to illegal activities, conducted by both their own fishers and by foreign vessels.

The lack of transparency in the fishing sector creates opportunities for corruption¹⁶. Lifting the veil of secrecy is therefore an opportunity to eliminate widespread corruption and weak governance in countries that allow illegal fishing to persist.

1. Transparency to assist in identifying vessels and monitoring their activities

1.1. Introducing a universal numbering scheme to establish vessels' identities and build a global database of vessels

A common trend amongst illegal fishing operators is to conceal the true identity and ownership of their vessels. This can allow vessels to escape sanctions when they fish illegally, and hide their history when they apply to operate in new areas. Examples may include hiding a history of non-compliance to obtain a new fishing licence or to avoid blacklisting by a regional fisheries management organisation (RFMO), or duplicating the names of vessels within a fleet to use one fishing licence for multiple vessels to reduce costs. Practices such as regular changes of vessel names, flags (known as flag hopping), use of multiple identities through forged certification documents or none at all, and obscuring markings are prevalent amongst illegal operators to create confusion around their identities¹⁷.

The volatility in IUU vessel identities is exacerbated by the fact that there is currently no system of unique vessel identifiers (UVI) mandatory for all fishing vessels. A UVI remains with a vessel throughout its life and would allow authorities to keep track of its identity and flags regardless of any changes in names or reflagging. Since 1987, the UN International Maritime Organization (IMO) has operated a seven digit-numbering scheme for 'propelled seagoing vessels'. However, it is only since 2013 that fishing vessels became eligible to apply for IMO numbers after an exemption was lifted. At present, any fishing vessel at least 12 metres in length overall (LOA) and authorised to operate outside waters of national jurisdiction, or 100 gross tons (GT) and above authorised to operate anywhere are eligible for an IMO number¹⁸.

CASE STUDY 1

IUU vessels with multiple identities or none

In late 2016, nine tuna longliners arrived in the port of Phuket, Thailand, all avowedly flagged to Bolivia but with Taiwanese ownership. After inspection by the Thai authorities, it was discovered that the vessels were using forged documents and were never registered in Bolivia. At the time of writing, following an investigation by EJF and the Royal Thai Government, seven of the nine vessels had been prosecuted in Thailand and an eighth captured in Indonesia¹⁹. It remains unclear where these vessels are actually registered, leading Thai authorities to classify them as stateless. **Through analysing the vessels' former identities and through interviews with former crew, it was found that most of the vessels had changed names two to three times in recent years.**



Four of the nine tuna longliners under investigation in the port of Phuket. © EJF

At least four of the vessels have appeared on the Indian Ocean Tuna Commission blacklist for IUU fishing under different names, whilst RFMO registration for some others was unclear. Thai authorities also identified several victims of trafficking, forced labour and physical abuse amongst the predominantly Indonesian and Filipino crewmembers. These workers have since returned to their countries of origin; however, because of a lack of clear vessel ownership, many of these workers are still fighting for compensation²⁰.

The IMO number is the most widely used UVI for fishing fleets across the world. Since the lifting of the exemption for fishing vessels, several key flag states have mandated IMO numbers for vessels fulfilling certain conditions. The European Union (EU) has mandated IMO numbers for all EU vessels of 24 metres LOA and above (or 100 GT and above) fishing in EU waters, and for all EU vessels of at least 15 metres LOA fishing outside EU waters. In addition, all non-EU vessels fishing in EU waters must have an IMO number²¹. Some coastal states and several RFMOs (11 in total) have also mandated that vessels above a certain size or tonnage must carry an IMO number if wishing to operate within their jurisdiction²².

EJF recommends that all flag and coastal states around the world mandate IMO numbers for eligible fishing vessels bearing their flag or operating in their waters²³. For vessels that do not qualify for an IMO number, EJF recommends that flag states adopt a national UVI scheme, which should include non-steel hull vessels and semi-industrial vessels. These UVIs should be recorded centrally and added to the data contained in the country's vessel monitoring system (VMS) as well as to public vessel registries.

CASE STUDY 2

Making sense of a complicated fleet: the Thai UVI experience

The vast majority of Thailand's fishing fleet is smaller than the industrial vessels that normally obtain IMO numbers. Most are also constructed from wood. To tackle the country's high levels of IUU fishing, there is still a need to monitor the identity of these vessels. To do this, **Thailand recently implemented a UVI scheme for all its domestic commercial fishing vessels weighing 10 GT and above,** encompassing just over 11,000 vessels. Thailand's UVI scheme uses a unique nine-digit number assigned to every vessel registered with the Thai Marine Department.



Thai inspection officials can enter a vessel's nine digit UVI number into an app or scan its QR code to receive detailed information about that particular vessel. © EJF

This ship registration number does not change for the lifespan of that vessel, regardless of name, ownership or usage changes. Almost all Thai commercial fishing vessels are constructed of wood and therefore UVIs are stamped into the wooden structure in two places—at the head of the vessel and also inside the wheelhouse. These locations are verified regularly during vessel inspections.

In addition to helping with the identification of vessels and tracking of their history, the widespread adoption of IMO numbers by all flag states would support the development of a desperately needed global record of fishing vessels.

Records and registers are important tools for management and enforcement in many different fields. For example, the Convention on International Civil Aviation requires national aviation authorities to maintain a register of all civil aircraft, whilst across the EU, member states are required to maintain a computerised database of all bovine

animals for traceability purposes, with unique numbers staying with them from birth to death. However, despite some attempts by RFMOs to maintain records of authorised vessels, there is no universal record of fishing vessels. The FAO is in the process of building the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (Global Record), based on IMO numbers, but this has been a long time in development and is currently only in its first phase, launched in April 2017²⁴. In July 2018, the current version of the Global Record was made publicly available online²⁵.

The Global Record, once fully operational, will constitute an international database of industrial fishing vessels throughout their lifespan, which contains their UVI and important information such as registration, vessel characteristics and ownership. It will also include information relevant to the fight against IUU fishing such as previous vessel names, owners and operators as well as fishing authorisations and compliance record²⁶.

It will be a crucial tool to assist fisheries authorities to make informed judgments about whether vessels should be considered as high risk, and whether they should be granted flags, fishing licences and access to ports. In addition, the Global Record will help ascertain the size and capacity of each country's fishing fleet, which is crucial to inform effective fisheries management.

A study, commissioned by FAO, concluded that the IMO number is the most suitable UVI for Phase 1 of the Global Record²⁷, which focuses on vessels of 100 GT or of 24 metres LOA but is foreseen to ultimately apply to all vessels above 10 GT (or above 12 metres) after the final Phase 3²⁸. To date, IMO numbers have been allocated to more than 24,000 fishing vessels worldwide. Out of these, 8,300 vessels have been included in the Global Record, thanks to the data provided by 48 states (which represent almost a third of states with fleets)²⁹.

EJF recommends that:

- ✓ All flag states immediately mandate IMO numbers for eligible vessels as a condition of their registration;
 - ✓ All coastal states require IMO numbers for foreign-flagged fishing vessels as a condition of their licence to operate;
 - ✓ All states implement a national UVI scheme for non-eligible industrial and semi-industrial vessels;
 - ✓ All states support the further development of the Global Record that ultimately includes all vessels over 12 m LOA, submit data on their fleet to the FAO and provide regular updates.
-

1.2. Shedding light on vessels' movements through opening vessel monitoring to the public

A wide range of stakeholders have an interest in knowing where vessels are, or have been, operating. Control authorities should cross-check information presented in vessel logbooks, coastal states should verify that licensed vessels are respecting the terms of their licences, and market states and industry should verify the origin of seafood products. However, without the appropriate surveillance tools, none of this is possible.

Satellite-based solutions, such as VMS, which allow for vessel tracking in near real time using satellite-positioning devices installed on fishing vessels, have become standard within fisheries monitoring and control. However, despite the clear cost advantages in comparison with at-sea patrols, VMS monitoring is still not being fully implemented by all countries around the world. Initial setup costs of constructing and operating a fisheries monitoring centre are perceived to be too high for many developing countries. In other cases, systems are established, but countries lack the resources or will to methodically monitor and act on the data that is produced. In most cases, VMS data remains under the control of relevant governments, meaning that illegal activities in countries where VMS surveillance is not fully functional or regularly monitored remain undetected and that other actors down the supply chain are unable to verify the legality of vessel activities.

Making vessel monitoring public could resolve this. Complete transparency through public access to vessel activity information would assist countries in better monitoring their waters and their fleets and facilitate cooperative surveillance and enforcement. Fishing vessels operate across numerous countries and on the high seas, and their products enter complex global supply chains. Restricting access to information about their activities is counterproductive to establishing transparency and traceability in the seafood sector.

Several solutions are available. One is for countries to publish their VMS data. For example, in 2017, Indonesia and Peru both agreed to share their VMS data on the publicly available satellite-monitoring platform Global Fishing Watch.³⁰ Whilst information could be provided with a short delay to protect the security and commercial interests of vessels, regular transmission intervals should be mandated. Fishing vessels should transmit their position at a minimum every hour. For the fisheries that require closer signal interval to allow effective monitoring, for example when levels of observer coverage are lower (such as longline fishing), or when there is a demonstrated need for greater monitoring (such as when a vessel enters a no-take zone or a protected area), governments should consider mandating increased polling rate up to once every 15 minutes.

	Vessel Monitoring System (VMS)	Automatic Identification System (AIS)
Access	Normally closed, proprietary	Open access
Original purpose	Fisheries management	Safety at sea
Communication	Bi-directional communication at regular intervals	Continuous transmission (reception dependent on satellite availability)
Range	Global (line of sight to satellite)	AIS: Line of sight to ground station Satellite-AIS: Global (line of sight to satellite)
Mandated use	Required by many flag and coastal states	Required for vessels over 300 GT. Some states require for smaller vessels

Another solution is for states to mandate the use of other technologies which are already ‘publicly accessible’. The automatic identification system (AIS) is one of them. As AIS data is unencrypted and can be received by anyone with the appropriate equipment, it is useful for control authorities to detect activities by vessels not covered by their VMS system. These can include illegal activities of fish carriers (e.g., prohibited trans-shipments at sea) or illegal fishing by foreign unlicensed vessels operating in a country’s exclusive economic zone (EEZ).

At present, fishing vessels do not have to be fitted with an AIS device: the International Convention for the Safety of Life at Sea only mandates AIS for vessels of 300 GT and above engaged in international voyages, for all cargo ships of 500 GT and above irrespective of their voyage type and for all passenger ships irrespective of size³¹. However, for fishing control purposes, some flag and coastal states are increasingly mandating AIS use for fishing vessels. Whilst AIS monitoring is not fit to replace VMS as the main electronic fisheries monitoring tool (particularly as devices can be easily tampered with), an increasing number of states are mandating its use in addition to VMS. These two systems have proven to be complementary and increase the reliability of monitoring data (particularly in case of failure of VMS transmission), while also helping flag states to build a more complete picture of vessel activities and increasing safety at sea³². The EU, for example, requires all fishing vessels above 15 metres in length to be fitted with an AIS system if they are EU-flagged or operating in EU waters³³.

Mandatory use of AIS, or any other publicly available tracking device, for fishing vessels, would be instrumental in increasing transparency and making it much more difficult for illegal operators to remain unaccountable, especially if used in combination with IMO numbers. The easily accessible information would be key in assisting control authorities to determine the legality of vessels’ activities or help reassure seafood buyers of the origin of their products.



Fishing vessel documented operating illegally in the Sierra Leonean inshore exclusion zone. © EJF

EJF recommends that:

- ✓ All states mandate AIS for fishing vessels that are eligible for an IMO number and/or other technologies that are accessible to the public;
 - ✓ All states mandate VMS with at least hourly transmission intervals and, if AIS is not mandated, publish unedited VMS data.
-

1.3. Publishing key information on fishing vessels' identities and activities

Fisheries activities are global and complex, with fishing vessels travelling through different jurisdictions, often owned and under the responsibility of actors and administrations on the other side of the world. It can prove very challenging to determine the identity of a vessel, who is responsible for it and if its fishing activities are in line with relevant regulations and management measures.

IUU fishing vessels aim to create as much confusion as possible around their identities³⁴ and often resort to changing flags regularly ('flag-hopping'), either to escape sanction or avoid being subjected to fisheries management rules such as quotas. This is facilitated by some countries that provide 'flags of convenience' (FoC) to vessels, which operate as open registers and have a low level of requirements for vessels to join their registries³⁵.

Some operators go as far as avoiding any flag state oversight, and de-register completely from any registries. These 'stateless vessels' will often use forged documents as a registration certificate (such as the fake Bolivian flags used by Taiwanese-owned vessels in Case Study 1). Similarly, to reduce costs and maximise profits, IUU operators often resort to operating without a valid licence from a coastal state, which causes significant loss in revenue for these countries.

As only a few states have so far committed to making their fishing vessel registries, fishing licence lists and fishing authorisation lists public, it is challenging for authorities around the world to verify the registration of vessels purporting to fly a specific flag or cross-check the validity of fishing licences.

Without specific information-sharing platforms or quick and efficient ways to verify fishing permits and vessels' flags, such as online, it can prove very difficult to ascertain the legality of a vessel's activities (and therefore the legality of products on board). Language barriers, lack of time and resources preclude control authorities from making requests to each and every flag and coastal state as a vessel is being inspected – meaning that many IUU vessels are able to operate stateless, under a false flag or without a valid fishing licence.

The need for governments to share information on fisheries is described in the FAO Code of Conduct for Responsible Fisheries³⁶. While there are many aspects to achieving sustainable fisheries, the public availability of credible information is essential. This includes publication of information related to the holders of rights of access to, and exploitation of, fisheries resources. Specifically, countries are encouraged to publish their fishing vessel registry (i.e., the vessels permitted to fly their flag), the list of vessels licensed to operate in their EEZ, either licensed on an individual basis or under a foreign access agreements (private or public), and their fishing authorisation list (vessels with the state's flag that are approved to operate in external waters).

In April 2018, the illegal fishing vessel STS-50 was arrested in Indonesia upon request of Interpol. Officially stateless, it had managed to evade authorities by flying eight different flags at the same time (including Sierra Leone, Togo, Cambodia, the Republic of Korea, Japan, Micronesia and Namibia)³⁷.

Releasing such information not only supports good governance of natural resources. In the context of IUU fishing, it is key in establishing the legality of vessels and the fish they land. In addition, such a measure is virtually cost-free and can be undertaken quickly.

Most of the major RFMOs, such as the Convention on the Conservation of Antarctic Marine Living Resources and the International Commission for the Conservation of Atlantic Tunas, are already publishing comprehensive information on vessels authorised to fish within their convention areas³⁸. A number of coastal states, such as Thailand³⁹ and Ghana⁴⁰, now publish their licence lists (often on a quarterly basis).

The EU, as part of the recent reform of its external fleet regulation, has committed to maintaining a public registry of its vessels authorised to fish outside EU waters, including under private agreements⁴¹. The EU also encourages other states to improve transparency around fishing access agreements in a move towards better fisheries governance. In the protocols that set out the terms of the fisheries access agreements of EU fishing vessels in non-EU EEZs (Sustainable Fisheries Partnership Agreements), the EU encourages signatory third countries to publish details of any public or private agreement allowing access to its EEZ by foreign vessels⁴².

EJF recommends that:

- ✓ Coastal states publish details of access agreements and lists of vessels licensed to fish within their waters;
 - ✓ Flag states publish the list of vessels registered to their flag;
 - ✓ Flag states publish lists of vessels authorised to fish outside their EEZ.
-

Box 3 | Which information?

As a minimum, information about the following should be made publicly available:

Flag state registry

- Name, tonnage and length of the vessel
- Vessel and/or gear type and target species
- Registration number and IMO number
- Details of the vessel legal owner and operator, including beneficial owner (see section 2.1 and 2.2)
- Crew manifest

Coastal state licence list

- Name, tonnage and length of the vessel
- Flag of the fishing vessel and authorising country
- Vessel and/or gear type and target species

- Details of any quota allocated to vessels, if applicable
- Registration number and IMO number
- Details of the vessel legal owner and operator, including beneficial owner (if available)
- Period of the licence
- Licence fee
- Crew manifest

Flag state list of external fishing authorisations

- Details required above in the flag registry
- Details of any quota or other limits allocated to vessels, if applicable
- Period of the authorisation
- The areas where the vessel is authorised to fish (coastal state EEZs, RFMO areas, high seas)
- The type of access agreement (private, chartering, RFMO, bilateral agreement, etc.)



Fishing vessel inspection at sea by Thai naval forces. © EJF

1.4. Publishing of information on sanctions against IUU fishing and human trafficking

According to international fisheries instruments, in particular the UN Convention on the Law of the Sea (UNCLOS)⁴³, the UN Fish Stocks Agreement (UNFSA)⁴⁴ and the FAO Compliance Agreement⁴⁵, a flag state's legal framework should include a comprehensive and effective sanctioning system for IUU fishing and related offences by vessels registered under its flag. Sanctions should be proportionate to the seriousness of the infringement, deter subsequent violations and deprive offenders of the benefits flowing from their IUU activities. At the same time, UNCLOS in its Article 217 advises that information on sanctions taken against vessels should be 'available to all states'.

The lack of public information about past fisheries-related offences and sanctions presents a barrier for states wishing to research the history of a vessel before granting a fishing licence or allowing a vessel to register to their flag.

The knowledge gap on vessel activities and history often leaves authorities in the dark, especially in countries with few resources allocated to fisheries management and control. In spite of some advanced initiatives to promote regional cooperation and information exchange, the lack of information at the global level offers an advantage to illegal operators who are able to carry out their activities with limited risk of detection. This lack of transparency undermines attempts to fight illegal fishing and comply with international measures designed to combat IUU fishing. The FAO International Plan of Action against IUU, for example, recommends that states carry out research on a vessel's IUU history before granting their flag⁴⁶, while the FAO Port State Measures Agreement (PSMA) requires ratifying states to block access to their ports to vessels with a history of non-compliance⁴⁷.

Additionally, certification schemes like the Marine Stewardship Council have measures designed to ensure fish from vessels found guilty of IUU or forced labour are not certified⁴⁸. Other efforts developed by industry and NGOs, such as the 2017 Code of practice PAS 1550:2017 (*Exercising due diligence in establishing the legal origin of seafood products and marine ingredients*) call on industry to check the compliance history of vessels they source from⁴⁹.

Although information-sharing and cooperation initiatives among states can be helpful, publishing information systematically on arrests and sanctions would be the most effective and efficient way to make such information available to all states and industry stakeholders at any point in the supply chain.

Public information on fisheries-related arrests or prosecutions can also act as a deterrent and may stimulate increased reporting of illegalities by citizens and legitimate boat owners who face unfair competition from vessels engaging in IUU fishing or using

trafficked labour. Transparency on sanctions can also lead to better governance, as when boats are caught fishing illegally, secrecy around penalties or fines creates an environment where corruption can occur without being detected by finance ministries, auditors or international organisations⁵⁰.

Both coastal and flag states should publish timely information on observed and recorded infractions and the fines or punishments related to illegal fishing, human trafficking and other related crimes. This information should be made publicly available through regular reports or documents on government websites. States should also ensure that these lists are communicated to RFMOs to inform existing regional blacklists of IUU vessels. At a minimum, this should include information on the vessel (name, flag, UVI), the IUU offence and the fine sum paid and by whom. It should also contain information on the beneficial owner, the operator, and name of the captain (if applicable).

EJF recommends that:

- ✓ All states publish information about arrests and sanctions imposed on individuals and companies for IUU fishing activities, human trafficking and other related crimes.
-



At-sea inspection by Sierra Leonean authorities. © EJF

2. Transparency to improve accountability of vessel owners

2.1. Ending opacity in ownership and unaccountability facilitated by flags of convenience

Even when IUU vessels are identified and are eligible for prosecution, the lack of information on ‘beneficial ownership’ often prevents meaningful sanctioning of those who benefit from the illicit seafood trade (see section 2.2). The seafood industry is plagued by complex and opaque corporate structures, often operated through FoCs.

FoCs are flags of states that set themselves up to be convenient to ship owners. Their registries can provide a competitive advantage above well-managed registries, for instance, by allowing registration at minimum cost, allowing ownership to be obscured through the use of local shell companies and imposing little or no flag state controls. The use of FoCs can also facilitate the less stringent recruitment of workers or working conditions on fishing vessels. Weak recruitment requirements, worker registration mechanisms, and permissive vessel inspection regimes of FoC states all provide opportunities for workers to be exploited for their labour.

The use of FoCs extends beyond fishing vessels and is widespread in cargo, cruise and other commercial fleets. The International Transport Worker’s Federation (ITF) has developed a list of states⁵¹, which is regularly updated using the ‘Rochdale Criteria’ and often used as the official list of FoC, although it should be emphasised in the context of this report that these include states that do not issue flags to fishing vessels⁵².

FoC states commonly operate as ‘open registers’, which means that they allow foreign vessels to register and fly their flags without stringent ‘nationality’ requirements so long as the vessel owner pays the fee and meets the (often minimal) registration conditions. For many states, open registers are simply a way to generate income.

Under international law, flag states are primarily responsible for regulating the activities of fishing vessels and ensuring compliance with applicable laws, regulations, and conservation and management measures⁵³. While some states that operate open registers have taken positive steps to fulfil their international responsibilities, the majority of open registry states are not bound by the many international instruments that require the exercise of flag state control over fishing vessels, nor do they exercise flag state control on a voluntary basis. Most of these states do not belong to, or cooperate with, any RFMO that has adopted international conservation and management measures⁵⁴. It is very attractive for IUU fishing vessels that would otherwise have to comply with such measures to opt for a FoC state that lacks the will or ability to ensure that their vessels act lawfully⁵⁵.

In some cases, flag states outsource the management of their registries to private companies (known as ‘private flags’). These companies are often located in a different country from the flag state. In some cases, the government administrations in the flag state do not know the identity of the vessels in their registers, making it almost impossible for them to exercise their responsibilities as envisaged by UNCLOS⁵⁶.



Crew member holding the Panama flag of fishing vessel Isabel. © EJF

Box 4 | The relationship between the EU Carding system and FoCs

To counteract the lucrative illicit trade of IUU products, the EU IUU Regulation entered into force in 2010 to establish an EU-wide system to prevent, deter and eliminate the import of IUU fishery products into the EU market. EJF applauds the leadership shown by the EU in the development, implementation and enforcement of this pioneer regulation. The regulation limits access to the EU market to fishery products that carry a catch certificate which certifies compliance with fisheries laws and conservation measures, and requires the sanctioning of any EU operator engaging in illicit fisheries trade (see section 2.3).

The IUU Regulation also enables the EU to enter into dialogue with non-EU countries that are assessed as not combatting IUU fishing in accordance with obligations under international law. If these countries fail to put in place required reforms in a timely manner, the European Commission can impose sanctions, including a ban on the import of their fisheries products to the EU. To date, 25 countries have been 'pre-identified', or warned that they could be considered as non-cooperating in the fight against IUU fishing (also known as a 'yellow card'). Six states are, or formerly were, designated by the EU as non-cooperating (also known as 'red-carded'), and of these five were listed by ITF as FoC states (Belize, Cambodia, Comoros, Netherlands Antilles, Sri Lanka, and Saint Vincent and the Grenadines)⁵⁷.

IUU fishing is often facilitated by an opaque ownership system based on a set of complex arrangements that maintain the anonymity of beneficial owners⁵⁸. This opacity in ownership is an issue that resides at the heart of the FoC system as most FoC jurisdictions offer such secrecy, where fishing vessels are registered to fictitious, or shell companies, often only nominally 'located' in the FoC country that has issued the flag⁵⁹. Shares in the shell company may then be held by further shell companies, concealing the identity of the real beneficial owners⁶⁰. These structures are often concealed under the law and regulations in the FoC state, which protect the secrecy of businesses⁶¹.

Although UNCLOS requires that flag states ensure there is a 'genuine link' between their territory and vessels applying for registration to their flag⁶² – the FoC system effectively circumvent this stipulation.

In addition, IUU fishing has also been found to be linked with the use of offshore shell companies to avoid taxes in 'tax havens'. A 2018 study commented on this link, finding "while only 4% of all registered fishing vessels are currently flagged in a tax haven, 70% of the known vessels implicated in illegal, unreported and unregulated fishing are, or have been, flagged under a tax haven jurisdiction"⁶³.

EJF urges states around the world to end and deter the use of FoCs. Secrecy is harmful when used to hide the identity of those controlling a business that is accessing natural resources, or persons who are otherwise involved in the operation of such a venture, particularly when it comes to illegal activities. FoCs impede the ability of enforcement authorities to prosecute the true perpetrators of IUU fishing activities and to hold them to account.

EJF recommends that flag states that outsource their registries to private companies should immediately bring their registry under state control, as undertaken by Belize in 2014 in response to their EU red card (see box 4). Going forward, EJF recommends that open registries be closed to fishing vessels. In 2010, Sierra Leone announced that it would close its international shipping registry to foreign-owned fishing vessels in an effort to reduce illegal fishing activities⁶⁴. In 2016, Cambodia reportedly banned all foreign vessels from its registry and cancelled its contract with the Korean private company that was running the registry⁶⁵. Other open registries should follow their example.

Finally, coastal states, RFMOs and market states can deter fishing operators from registering in a FoC state through closing access to their waters and to their markets to vessels registered to such flags. In effect, the EU IUU Regulation has been a step toward this by closely scrutinising the management measures of FoC, and in some cases blocking their access to the EU market.

In addition, states should discourage their nationals from registering their vessels under a FoC and continue to scrutinise the behaviour of those that do, as recommended below. The private sector can also play a role in deterring the use of FoCs in the fishing sector by ending the involvement of FoC fishing vessels in their supply chains.

EJF recommends that:

- ✓ FoC states close open registries to fishing vessels and ensure that registries are under state control;
 - ✓ Coastal states and RFMOs ban the use of FoCs in their waters and market states prevent vessels using FoCs from supplying fisheries products to their markets.
-



In March 2011, EJF documented an illegal trans-shipment carried out by the Panama-flagged fish carrier *Seta 73*. After paying a fine of US\$200,000, the vessel changed its flag temporarily to Togo, under the name *Inesa*. The vessel then changed its name to *Sea Rider* and re-registered in Panama in 2014. Both Panama and Togo are considered as FoCs by ITF. Since 2016, *Sea Rider*'s flag is undetermined. © EJF

CASE STUDY 3

The Taiwanese hidden fleet

In July 2016, the Taiwanese government adopted the Act to Govern Investment in the Operation of Foreign Flag Fishing Vessels⁶⁶. It requires Taiwanese nationals to obtain prior authorisation before investing or operating in a FoC state. By February 2018, the Taiwanese Fisheries Agency had identified 252 FoC vessels. Although the creation of this list of vessels by Taiwanese authorities is a positive first step, the tool would be more effective if it were published online for easy scrutiny by other states, NGOs and industry. EJF obtained the list through an access to information request and cross-checked it with the vessel information published by RFMOs. Several vessels were identified that are potentially owned by, or have investment from, Taiwanese citizens but which may not be complying with the Taiwanese government's reporting requirements for operation while flying a FoCs⁶⁷. These suspicious vessels are only those authorised to fish in RFMOs: there may be other vessels that fish in areas or for species that are not managed by RFMOs.

Through publishing the list, further vessels missing from the list may be identified. The list is currently only available through access to information requests that most organisations, particularly those not based in Taiwan, are unaware of and will find difficult and time consuming to obtain.

2.2. Identifying who profits from IUU fishing operations through improving transparency on beneficial ownership

IUU fishing is increasingly recognised as a form of transnational organised crime⁶⁸. It is commonly associated with forgery, fraud, money laundering and other enabling crimes, as well as non-fisheries violations such as human trafficking and the trade in narcotics⁶⁹. IUU fishing is highly lucrative, resulting in billions of dollars of illicit financial flows every year⁷⁰.

Dismantling the networks behind these operations requires the recipients of profits to be identified and held to account. IUU operations may span continents and oceans, involving players far removed from activities at sea. As already discussed above in the context of FoCs, corporate structures may conceal the identities of beneficiaries, allowing them to profit from illegal fishing with low risk of detection. Tracking financial flows and reaching behind corporate arrangements requires a high degree of cooperation across agencies, borders and disciplines.

Given these challenges, fisheries enforcement has traditionally targeted the registered owners and captains of fishing vessels. However, notorious IUU offenders can assign new or fictitious individuals and companies to these roles, continuing their operations and evading sanction as the real beneficial owners who direct and profit from these illegal activities.

When considering the proportionality of sanctions for fisheries offences, one should consider the means available to the entity that is effectively controlling the vessel and profiting from illegal activities. According to international law, sanctions for IUU fishing should be adequate in severity to discourage violations of fisheries rules, and should deprive offenders of the benefits accruing from such activities⁷¹. It is therefore crucial to identify the true actors and companies behind fishing activities to ensure that sanctions deter future IUU offences.

Improving transparency of beneficial ownership⁷² in the fishing industry is an important, cost-effective mechanism to ensure that enforcement targets those who gain from illicit activities. While some countries may need to amend data protection requirements to allow for transparency of beneficial ownership, the publication of such information has already been a focus in the extractive industries sector – oil and gas extraction, mining, dredging and quarrying – as part of reforms implemented under the global Extractive Industries Transparency Initiative (see box 5).

Box 5 | Transparency and natural resource governance

There is increasing recognition of the importance of transparency as a basis for good governance and the sustainable use of natural resources, particularly in the extractive industries and the forestry sector.

The Extractive Industry Transparency Initiative (EiTI)⁷³ is a voluntary global standard that aims to promote open and accountable resource management in countries rich in oil, gas and mineral resources.

The 2016 EiTI Standard requires all implementing countries to establish a public beneficial ownership disclosure regime by January 2020. The standard defines the beneficial owner of a company as “the natural person(s) who directly or indirectly ultimately owns or controls the corporate entity”.

Whilst the extractive industry sector has led such transparency initiatives for decades, it is only recently that similar initiatives have been created for the fisheries sector, such as the Fisheries Transparency Initiative, which is modelled on the EITI.

EJF recommends that:

- ✓ All states publish information about beneficial ownership in their public lists (vessel registry and lists of fishing licences, fishing authorisations, and IUU fishing infringements and sanctions);
 - ✓ All states require companies to provide information on beneficial ownership when applying for a fishing licence, fishing authorisation or for a country's flag and that sanctions are applied where they find evidence that this information is false.
-

CASE STUDY 4

'Proportionate and dissuasive sanctions' rely on identifying the true beneficial owners – the case of the Sino-Ghanaian fleet in Ghana



Ghanaian bottom trawlers moored in the port of Tema, Ghana. © EJF

According to Ghana's Fisheries Act of 2002, foreign interests are not permitted to engage in Ghana's industrial fishing sector, either directly or by way of joint ventures⁷⁴. This restriction applies to all Ghanaian industrial and semi-industrial vessels, with an exception for tuna vessels. The restriction aims to ensure that the financial benefits accruing from these sectors are retained within the country, thereby contributing to Ghana's socio-economic development, rather than being sent overseas.

In spite of these restrictions, foreign interests, in particular from China, are known to be extensive within Ghana's industrial trawl sector. Chinese companies operate through Ghanaian 'front' companies to import their vessels into the Ghanaian fleet register and obtain a licence to fish, setting up opaque corporate structures to circumvent the nationality criteria in the law. With the balance of control invariably resting with the Chinese investor, such arrangements quite clearly contravene the spirit and purpose of the legislation⁷⁵.

For instance, based on the list of Chinese establishments authorised to export to the EU⁷⁶ and other sources⁷⁷, it is possible to infer that the Chinese company Rongcheng Marine Fishery Co. Ltd's fleet in Ghana includes, amongst others, the vessel *Lu Rong Yuan Yu 919*. However, according to the licence list for industrial trawl vessels fishing in Ghana, the Ghanaian company Connado Enterprises Limited holds the fishing licence for the vessel *Lu Rong Yuan Yu 919*, among others. According to company information held by the Registrar General's Department, the registered capital of Connado Enterprises Limited is GHS 300,000 (approximately US\$64,000). The company's envisaged annual revenue is GHS 10,000 (approximately US\$2,200) and the envisaged number of employees is only two. In contrast, Rongcheng Marine Fishery Co. Ltd has fixed assets of approximately US\$62.5 million and reports an annual production value of approximately US\$47 million⁷⁸.

These discrepancies highlight the need to consider the beneficial owner when determining the level of sanctions for fisheries-related violations, to ensure they reach the true beneficiaries of illegal fishing and that they have a deterrent effect. National laws must be designed to ensure beneficial owners can be identified and held to account.

2.3. Identifying and sanctioning nationals involved in IUU fishing operations

Fishing operations may take place in a multitude of foreign coastal waters, under regularly changing foreign flags and, at times, in uncertain jurisdictions. With major flag states such as the EU and the Republic of Korea applying strict management measures to vessels that fly their flag, there is an increased risk that unscrupulous nationals will opt to fish illegally using other flags. As such, it is important that the states of origin of fishing operators are able to hold their nationals to account wherever they are involved in IUU fishing activities.

The implementation of legal provisions for the sanctioning of nationals is a strong measure against unscrupulous operators who may register their vessels to flags of non-compliance (meaning states that fail to comply with international obligations regarding fishing vessels flying their flag) to avoid strict fisheries management rules or controls. Nationality is one element that cannot be changed regularly, unlike the name, flag, or country of registry for business operations.

The EU was a pioneer in designing such a measure, with other countries such as the Republic of Korea and Taiwan subsequently following suit. The measure is a core component of the EU IUU Regulation, which is the key regulation designed to stop IUU fishing products from entering the EU market and improve global fisheries governance. It requires EU member states to impose effective, proportionate and dissuasive sanctions on any EU individual or EU-based entity proven to have been involved in IUU fishing or related trade.

This includes direct involvement, where EU-flagged vessels engage in IUU fishing, and indirect involvement, where non-EU flagged vessels are traced back to EU ownership or EU nationals benefit financially from their profits. Case Study 3 outlines early steps taken by Taiwan to monitor the use of foreign flags by their nationals.

The EU IUU Regulation also requires EU member states to take investigative measures to identify nationals supporting or engaged in IUU fishing⁷⁹, and to endeavour to obtain information on the existence of any arrangement between fishing vessels flying their flag and a third country allowing reflagging to its own flag⁸⁰. Member states are also required to encourage their nationals to notify them of any information pertaining to legal, beneficial or financial interests in, or control of, fishing vessels flagged to a non-EU country⁸¹.

Spain has led the world in developing its legislation to facilitate the prosecution of Spanish nationals engaged in IUU fishing. The recent successful results by Spain (see box 6) demonstrate the outcomes that may be achieved through implementation of a comprehensive legal framework, supported by strong political will and international and national level cooperation.

EJF recommends that states make the necessary modifications to their legal frameworks, taking into account their national context, to assist in securing successful prosecutions of nationals engaged in a broad range of IUU fishing activities, including through beneficial interests and trade in illegally sourced products.



The *Northern Warrior* detained in Vigo for IUU charges. The vessel was found to have used forged documentation to access the port of Vigo and to obtain fishing authorisations. © EJF

Box 6 | Lessons learnt from Spain on prosecuting nationals involved in IUU fishing⁸²

Spain has worked to ensure its nationals can be effectively sanctioned for involvement in IUU fishing activities (as per the EU IUU Regulation). Two major prosecutions (named Sparrow I and Sparrow II by the Spanish authorities) resulted in severe sanctions, including administrative fines of over €20 million imposed against various companies and individuals.

Based on an analysis of these recent administrative cases that led to successful sanctions for nationals involved in IUU fishing offences, and discussions with the Spanish authorities, it is possible to discern a number of crucial elements for the successful prosecution of nationals engaged in IUU fishing:

- **Solid and comprehensive legal framework**, underpinned by good fisheries governance and by international laws and guidelines (e.g. those adopted by the UN, FAO, RFMOs and EU).
- **Categorisation of infringements in national legislation** in a comprehensive manner.
- **Incorporation of wide powers of investigation into national legislation**, allowing authorities to undertake inspections of company records and premises, including of beneficial owners, which are key to obtaining the evidence required for effective prosecution.
- **Establishment of an intelligence team** to assess and investigate potential links between corporations and vessel owners and IUU fishing.
- **Enactment of dissuasive sanctions.**
- **International cooperation** to facilitate information-sharing on cases that involve activities and actors operating overseas.
- **Internal cooperation** to facilitate evidence sharing amongst administrations (i.e. justice, tax, customs, fisheries, finance, etc.).

EJF recommends that:

- ✓ All states include provisions in national legislation to identify whether their nationals are supporting or engaging in IUU fishing, and implement deterrent sanctions against them.
-

3. Transparency to prevent IUU products from entering seafood supply chains

3.1. Ending unmonitored trans-shipments at sea

International trade of fisheries products often depends on trans-shipments, namely the transfer of consignments from one fishing vessel to another. The fish is generally transferred to a refrigerated cargo ship, or 'reefer', which is then tasked with taking fisheries products to their destination port.

Especially in remote areas, such as the high seas, trans-shipments at sea from fishing vessels to cargo vessels are a convenient and cost-effective means for fishing vessels to stay longer at sea, as travelling to and from port to offload their catch takes up valuable time and fuel. However, trans-shipments increase the number of actors and steps in supply chains, as well as the number of fishing vessels linked to a single consignment. This means that authorities at the port of landing are often tasked with verifying the licences of several fishing vessels for a single consignment. When the trans-shipments take place at sea, it becomes even more difficult to ensure the legality of products because of the logistical and technical difficulties of monitoring trans-shipped catches and ensuring they can be traced back to a particular (legal) fishing activity. The practice also reduces the frequency of vessel inspections.

Although trans-shipments at sea are sometimes authorised by coastal or flag state authorities, or the relevant RFMO, they are often carried out in an unregulated manner, and in some cases illegally.

Whether authorised or not, they frequently facilitate the laundering of IUU fish due to the difficulties of controlling the legality of trans-shipped catches, while helping operators to conceal illegal fishing activities by avoiding port inspections⁸³.

As fishing boats can stay out at sea for longer, away from port inspectors, trans-shipments at sea also facilitate activities associated with illegal fishing, such as human trafficking, forced labour, and other human rights abuses. In 2015, authorities in Papua New Guinea rescued eight workers from a refrigerated cargo vessel who were destined to work on a network of slave boats operating in Indonesian waters⁸⁴. By allowing vessels to effectively stay at sea indefinitely, trafficked crew members can be imprisoned aboard and rotated between vessels for years without any opportunity to go ashore. For business operators and vessel owners who have made considerable investments in the purchase of slave labour from brokers, this system serves as a means to minimise the risk of escape and to prevent captains from selling or transferring trafficked workers between vessels when individual boats return to port for repairs⁸⁵. In 2017, ITF called for a moratorium on high seas trans-shipment by tuna long-line vessels in the Indian Ocean, Gulf of Thailand and South China Sea unless operators implement fair labour standards to protect the seafarers on board these vessels⁸⁶.



A trans-shipment at sea in Sierra Leone between industrial vessels and an artisanal canoe. © EJF

Box 7 | The destructive practice of artisanal trans-shipment in Ghana

In Ghana, a local form of trans-shipment, known as ‘saiko’, is conducted by industrial trawlers that transfer blocks of frozen fish to specially adapted canoes out at sea. The canoes then transport the blocks of fish to market in ports. This practice, although illegal under Ghanaian fisheries legislation, has increased in recent years at major landing sites across the country.

According to recent estimates, saiko accounts for around 100,000 metric tonnes of fish each year, exceeding landing rates of legally caught fish. Originally a means of trading unwanted by-catch from the industrial trawl fleet, trawlers with licences to fish for demersal species have increasingly targeted small pelagic fish – the key target species of the artisanal fishery – specifically for the lucrative saiko trade. This has contributed to the depletion of the small pelagic fishery, threatening food security and livelihoods of millions living in coastal communities. In violation of the fisheries laws, some trawlers use small-mesh nets to target juvenile fish, eroding the reproductive potential of the resource. In addition to competing directly with artisanal fishers for small pelagic catches, saiko floods the market with cheap, poor quality fish, pushing down prices along with income for artisanal fishers.

Finally, as saiko catches are not recorded in national catch statistics, fisheries managers are unable to calculate the additional pressure on Ghana’s fish stocks, making effective fisheries management practically impossible⁸⁷.



Despite being illegal, a low risk of arrest and sanction has meant that saiko landings have taken place in full view of authorities. © EJF

Reforming how trans-shipment is carried out is crucial for healthy fisheries and for ensuring that illegal activities are detected and deterred before they can happen. Some states and organisations have taken measures to address trans-shipments at sea. For example, Indonesia has implemented a permanent ban on trans-shipment at sea for all vessels flying its flag⁸⁸. However, these states remain a minority. A recent study found that although regulations governing trans-shipments at sea have become increasingly strict in most RFMOs since the late 1990s, by 2015 only five RFMOs had mandated even a partial ban and only one, the South East Atlantic Fisheries Organization, had mandated a total ban on trans-shipment at sea⁸⁹.

Because of the key role of unregulated and unmonitored trans-shipments at sea in the laundering of illegal catches, and facilitating labour abuses, EJF is advocating for all flag states, coastal states and RFMOs to take measures against such practices. EJF recommends that authorities implement measures to allow for the full and effective monitoring of trans-shipments at sea involving industrial vessels, subject to robust observation. Unless all human and electronic monitoring and reporting conditions are met, trans-shipments at sea should be prohibited. States should also make necessary amendments to their legal frameworks to ensure that trans-shipment rules are adhered to and can be adequately enforced.

To make monitoring effective, states should:

- Require that all industrial vessels intending to trans-ship submit electronic pre-authorisation requests to their flag state, coastal state, and relevant RFMO secretariat at least 24 hours beforehand. That notification should include confirmation of the vessel's compliance with near real-time VMS reporting, electronic logbook and observer coverage requirements where relevant⁹⁰.
- Require 100% monitoring of trans-shipping events - with mandatory electronic monitoring and coverage by a human observer scheme appropriate to the fishery. This should be regardless of whether the trans-shipment occurs in national waters or under the auspices of an RFMO. All vessels authorised to engage in trans-shipping activities should have, as minimum requirements, an operational VMS unit on board as well as an electronic logbook. Electronic monitoring should be appropriate for the vessel (able to observe the flow of fish products) and also be able to ensure the safety of observers on board. States should develop requirements for fishing vessels and reefer vessels to be fitted with tamper-proof equipment including sensors and cameras that can detect unauthorised activities. Sensors can automatically detect when vessel holds are opened, when vessels are in close proximity with one another, and if engines are slowed. Cameras can then photograph activity on board and transmit images to authorities.
- Require all trans-shipment events to be reported to the relevant flag state, coastal state, port state, and the relevant RFMO secretariat, regardless of the event location or origin of catch being trans-shipped within 24 hours of completion. States should also ensure that observers submit electronic reporting forms to the relevant flag state, coastal state, port state, and the relevant RFMO secretariat within 24 hours of each trans-shipping event as an independent means to verify the vessel's reporting⁹¹.
- Set maximum periods at sea for crew members to prevent the use of trans-shippments to keep workers at sea indefinitely.
- Prohibit crew transfers at sea unless extreme circumstances such as illness warrant emergency extractions.

EJF recommends that:

- ✓ All states implement a ban on trans-shippments at sea unless they are pre-authorised and are subject to robust and verifiable electronic monitoring and are covered by a human observer scheme appropriate to the fishery.
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CASE STUDY 5

The Holland Klipper Case

EJF monitors publicly broadcast AIS signals from fishing vessels through the platform ExactEarth to identify illegal fishing activities in West Africa.

In September 2013, EJF identified the Korean-flagged fishing vessel *Kum Woong 101* fishing illegally in the inshore exclusion zone of Sierra Leone. The vessel then travelled north to a position approximately 90 nautical miles north-west of Conakry, Guinea, **to trans-ship with the Dutch-flagged refrigerated cargo vessel *Holland Klipper*.** This trans-shipment was carried out in breach of both EU law, which does not allow trans-shippments at sea unless under the auspices of an RFMO⁹², and Guinean laws which ban trans-shippments at sea⁹³ entirely. On 1 May 2014, authorities in the Republic of Korea sanctioned a total of



Neptunus, previously named *Kum Woong 101*, moored off Banana Island in Sierra Leone. © EJF

22 vessels involved in the illegal trans-shippments (fines and suspension of fishing authorisations for one month)⁹⁴. *Holland Klipper* changed names to *Sierra King* in November 2013 and is still flagged to the Netherlands.

3.2. Gathering and storing fishing-vessel data digitally to further transparency in supply chains

Seafood traceability has been defined as “the ability to access any or all information relating to that which is under consideration, throughout its entire life cycle, by means of recorded identifications”⁹⁵. Traceability relies on credible data that is transparent and fully accessible by relevant stakeholders and adequately preserved to prevent alteration or manipulation by unscrupulous actors. Transparency and accountability can be greatly enhanced if there is a permanent, digital record that can demonstrate a ‘chain of custody’ throughout a supply chain, from when the fish was first caught to when it was delivered to the end customer (often called ‘net to plate’ traceability).

The fishing vessel component of the supply chain is often the most sensitive, most notably because of the risk that IUU fishers falsify data to make their catch appear legal. The relevant data needed to establish legality are currently often already captured by government authorities or by the private sector, sometimes even in a digital form. However, data are often not held in one place, and most exchanges of this data currently occur in paper form, through printing, scanning, faxing, posting or emailing of documents – which makes it easier for illegal operators to falsify it⁹⁶.

For traceability to work, it is crucial that some key data elements (KDEs) on fishing vessels from various data sources are recorded accurately and in a digital form (with allowances made for small-scale fisheries, such as recording data on landing by artisanal vessels). These should then be preserved and available at all stages of the supply chain so that inspecting officials, investigators, suppliers, retailers, and indeed consumers can identify potential discrepancies or detect fraud. The location of catch is an example of a KDE, and VMS tracking is a data source that can be used to verify it. Alongside KDEs and data sources focused on fisheries, the inclusion of worker-related data can also support efforts to combat human trafficking and other serious abuses on fishing vessels.



Weighing catch in port, Thailand. © EJF



Tuna being unloaded in the port of Abidjan, Côte d'Ivoire. © EJF

Countries that are working to close seafood markets to IUU products could greatly benefit from the digitisation of such data to cross-check information where there are doubts about the legality of vessel activities. Legality can be established by looking backwards into the supply chain by trying to determine whether products have been harvested in accordance to national, regional or international rules and if there is a robust chain of custody⁹⁷.

A useful analogy that is often referenced in terms of designing traceability systems is that of the global banking system. Such a system works through the global standardisation of money transfers through universal transactions, understood and translatable by any bank in the world. This interoperability is essential in ensuring money flows are completely traceable and secure at every point in the transaction. The advent of digital catch documentation systems should adopt these principles to establish similar global standards for traceability in fisheries transactions. As more countries introduce unilateral catch certification schemes to protect their markets from IUU products or take part in multilateral catch documentation schemes under the umbrella of Regional Fisheries Bodies (RFBs) or RFMOs, the question of interoperability of catch documentation schemes will become increasingly important, especially as seafood supply chains become more globalised. The recognition of equivalence between schemes as well as their interoperability, preferably with the leadership of the FAO, is more likely feasible through digitisation of information and a common understanding of priority KDEs on fishing vessels, provided by credible data sources.

EJF recommends that all states mandate and implement digital traceability systems to improve transparency in seafood supply chains at the registration and harvesting phases. Credible and reliable information recorded by individual countries, and particularly flag states during the harvesting phase, are key to establishing legality of products and supporting the implementation of all catch documentation schemes, whether unilateral or multilateral. In developing such systems, states should, at a minimum, include the following KDEs:

CASE STUDY 6

Thai Flag

The electronic 'Thai Flag' traceability system was introduced by the Thai Department of Fisheries (DoF) in 2017. **It allows the DoF to log all aspects of a specific supply chain from the catching vessel through to the processor and eventually the end customer or exporter.**

Thai Flag incorporates data from various databases. This allows it to log vessel data points, time of landing, catch weight, and species of each shipment. All subsequent aspects of the supply chain are also included such as: the transport vehicles used, factories visited, and all corresponding times and dates for arrival and departure of products at each stage.

Each shipment has a unique and permanent reference code – the 'port in' authorisation number given to the vessel by the DoF – which stays with the shipment throughout the supply chain. This allows the DoF to track its progress.

Another key aspect of Thai Flag is accountability and transparency. Whenever someone makes a change to the supply chain, the original information is never deleted – as in a blockchain ledger – but rather is added to. This means that data can never be lost from the system, which is crucial to prevent unauthorised tampering. Each change is also logged permanently by whoever made the change, when, and where, adding an additional layer of scrutiny.

Fishing vessel operation

- **Vessel identity information such as name and UVI.** Data sources may include vessel registries.
- **Vessel licensing information relating to its permission to fish.** Data sources may include fishing license and/or authorisation to fish in designated areas/zones (including in areas beyond national jurisdiction).
- **Vessel crewing information to prevent human trafficking and labour abuses,** with the crew manifest as a main data source.

Fishing activity

- **Catch location determining where the vessel has been operating.** Data sources include vessel monitoring track showing full fishing trip with no missing transmissions and vessel logbook.
- **Catch information providing a full record of quantity, species and product type.** Data sources include vessel logbook and where relevant, catch certificate and observer reports.

End of fishing trip

- **Route to market,** with all records related to the unloading of fish such as trans-shipments, landings and processing statements with a level of detail sufficient to allow net to plate traceability.

When setting up such systems, control authorities should ensure that these digital data points are fixed, tamperproof and centralised in a single database (although information may be provided by different agencies). Wherever possible, these should be made publicly available to facilitate access to information by all stakeholders. The FAO has produced detailed country-level guidelines on the fisheries KDEs and data sources mentioned above⁹⁸.

EJF recommends that:

- ✓ All states to mandate and implement the near-term adoption of cost-effective digital tools that safeguard in a digital form key information on vessel registration, licences, unloading records, catch location and information and crew documentation. These should be designed in such a way as to support a rapid move towards a universal interoperable digital catch certification scheme.
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3.3. Ratifying global treaties for more effective port state control

Marine resources do not know boundaries and cooperation amongst states is therefore crucial in fisheries management. Article 118 of UNCLOS encourages states to cooperate in the management of high seas fish stocks, whilst Article 18 of the UNFSA obliges parties to adopt measures to ensure that vessels do not undermine the effectiveness of an RFMO's measures. Article 8 of the Agreement moreover explicitly restricts access to fishery resources which are covered by an RFMO's conservation and management measures to states which are either members of that RFMO, or which agree to apply those measures⁹⁹. Becoming parties to RFBs or RFMOs, or at a minimum being bound by their rules, is therefore understood as a pre-requisite under international law. But crucially, it is of paramount importance that states are transparent when it comes to their activities that fall under the scope of these organisations, reflected in their reporting. Transparent and reliable information will be key in the successful assessment of resources and implementation of appropriate conservation and management rules based on this assessment.

Adhering to international treaties and organisations to increase cooperation and harmonised rules is not only important in fisheries management, but also to MCS as large differences in control regimes can provoke diversion of trades and fisheries exploitation to more lenient jurisdictions. As awareness of IUU fishing and related issues like human trafficking has increased across the world, the UN, across its different agencies, has adopted several agreements to tackle issues specific to the fishing sector. In 2016, the FAO Port State Measures Agreement (PSMA) was the first-ever binding international agreement dealing specifically with IUU fishing.

The agreement requires parties to place tighter controls on foreign-flagged vessels seeking to enter and use their ports to land or trans-ship seafood, with a view to detect trade in IUU products and stop consignments from reaching a market. Key measures include refusing entry to ports or access to port services to foreign-flagged vessels known to have engaged in IUU fishing; allowing vessels entry into port for inspection of vessels suspected to have engaged in IUU fishing, so that follow up action can be taken against identified infringements; and information-sharing mechanisms with other relevant states and organisations to facilitate cooperation in enforcement actions¹⁰⁰. Global implementation is critical to the success of the PSMA to ensure that illegal fishers do not simply shift bad behaviour to ports with laxer controls.

Alongside this, UN agencies have also become increasingly aware of the connection between IUU fishing, fisheries-related and associated crimes and the need for a concerted approach to tackle all three. For example, in some cases, a vessel may be involved in activities that fall into all three categories which necessitates coordinated enforcement action¹⁰¹.

Together with the FAO, the IMO and the International Labour Organization (ILO) have acknowledged the links between IUU fishing and crimes involving the safety and welfare of crew¹⁰², and the complementary nature of the FAO PSMA with two other instruments that were developed primarily with other focuses in mind: the ILO Work in Fishing Convention C188 (ILO C188), and the IMO Cape Town Agreement. The ILO C188 seeks to raise standards for fishers and prevent serious abuses like human trafficking. The IMO Cape Town Agreement was developed to improve the safety of sea-going fishing vessels, in particular through vessel design, construction and equipment requirements. More detail on the contents and status of each treaty is provided in box 8.



Crew members emptying nets on board a Thai fishing vessel. © EJF

Box 8 | Status, purpose and application of relevant UN Agreements

FAO Port State Measure Agreement

Purpose: Preventing seafood caught from IUU fishing activities from reaching national and international markets.

Benefits: Seeks to prevent the occurrence of so-called 'ports of non-compliance' through providing a legal framework for port states to check and verify that vessels not flying their flags and that seek permission to enter their ports, or that are already in their ports, have not engaged in IUU fishing. It requires better and more effective cooperation and information exchange among coastal states, flag states and RFMOs and contributes to strengthened fisheries management and governance at all levels.

Application: To foreign fishing vessels visiting the ports of ratifying states.

Status: Entered into force in 2016 and has been ratified by 55 states.

ILO Work in fishing Convention C188

Purpose: Improving workers' conditions and protecting seafarers on board commercial fishing vessels.

Benefits: Sets out binding requirements to protect workers on board fishing vessels, including occupational safety and health and medical care at sea and ashore, rest periods, written work agreements that ban the deductions often used to trap fishers in debt bondage, and social security protection. It aims to ensure that fishing vessels are constructed and maintained so that fishers have decent living conditions on board.

Application: To fishing vessels flagged to the ratifying state as well as fishing vessels visiting their ports.

Status: Entered into force in 2017 and has been ratified by 10 states.

IMO Cape Town Agreement

Purpose: Enhancing safety on board fishing vessels.

Benefits: Outlines design, construction, and equipment standards for fishing vessels of 24 metres or more in length and details regulations that countries that are party to the agreement must adopt to protect fishing crews and observers.

Application: To fishing vessels 24 meters in length and over, flagged to the ratifying state as well as fishing vessels visiting their ports and operating in their waters, even where the flag state of those vessels is not party to the agreement themselves.

Status: Not in force yet. It will enter into force after at least 22 states, with an aggregate 3,600 fishing vessels of 24 metres in length and over operating on the high seas have expressed their consent to be bound by it. The agreement has currently 10 contracting parties.

The three agencies are now working together to see all three instruments enter into force and become adopted and implemented by as many states as possible. Each instrument entails increased port inspections, though with a focus on their respective mandates. There is a growing understanding among the three UN agencies and the broader international community that by increasing the interactions between authorities and fishing vessels, each treaty will increase the chance of identifying high-risk vessels associated with one or more areas of concern. Harmonised implementation of all three instruments also offers the opportunity for states to improve communication and coordination between maritime and fisheries agencies.

EJF is calling on states to ratify and implement all three treaties. This will create a set of legal UN instruments that will set clear transparency global standards for fishing crew and observers, fishing vessels and port inspections (including legality, working conditions and safety) from the point of catch to the point of landing.

EJF recommends that:

- ✓ All states immediately ratify and implement the international agreements that set clear benchmarks for standards on fisheries vessels and the trade in fisheries products, including the FAO's PSMA, the ILO's C188 and the IMO's Cape Town Agreement.
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CASE STUDY 7

From vessel safety to labour standards: the Fuh Sheng 11 case

In May 2018, South African authorities detained the Taiwanese-flagged fishing vessel *Fuh Sheng No 11*. In a press release on 17 July 2018, the ILO announced that this was the first detention of a fishing vessel under the provisions of the ILO Work in Fishing Convention (C188)¹⁰³.

Although the vessel was initially inspected because of signs that it was unseaworthy, important issues related to labour conditions on board were subsequently found by South African authorities during the inspection. These included: reported harsh labour conditions by the crew, hazardous living conditions on board and absence of work contracts for most of the crew. In later interviews conducted by EJF, the crew also reported physical abuse and shark finning, which is illegal under Taiwanese law.

The detention of *Fuh Sheng 11* demonstrates the connections among vessel safety, labour issues and illegal fishing and how increased port state control and harmonised inspection standards under the UN umbrella can help detect IUU and other related crimes.



The *Fuh Sheng 11* under repair in Cape Town. © EJF

Conclusion

Our oceans are under threat. Over-fishing has driven many fish stocks to the brink, and some even to total collapse. IUU fishing is a key cause of this. Not only does it threaten food security and livelihoods around the world, it costs up to US\$23.5 billion per year globally. The world needs sustainable, legal and ethical fisheries management more than ever.

As this report has shown, much of the fishing industry is at best opaque, and at worst operates under a veil of secrecy enabling IUU fishing to become rife. But bringing fisheries out of the shadows does not require new, sophisticated technology, or unrealistic expense. It can be achieved through a combination of making key information public, enforcement of clear, sensible fisheries management rules by all governments, and the use of existing technology to understand, map and disclose supply chains.

A global effort to end IUU fishing is required, and EJF is calling on states to adopt the 10 cost-effective, global transparency principles detailed in this report. Collectively, these will shed light on vessel identities, activities and ownership, and make a significant difference in the fight against IUU fishing. The report's case studies show how some states have already started to implement these principles and how others can follow their lead.

Global transparency principles

EJF's ten principles for states to adopt are:

- Immediately mandate IMO numbers for all eligible vessels and implement a national UVI scheme for non-eligible vessels, maintaining a vessel registry and providing all information to the FAO Global Record of Fishing Vessels (which ultimately includes all eligible vessels over 12 metres length overall).
- Require AIS for fishing vessels and/or make unedited VMS data public with regular transmission intervals sufficient to ensure vessels can be permanently tracked.
- Publish up-to-date lists of all fishing licences, authorisations and vessel registries.
- Publish information about arrests and sanctions imposed on individuals and companies for IUU fishing activities, human trafficking and other related crimes.
- Implement a ban on trans-shipments at sea unless they are pre-authorised and are subject to robust, verifiable, human and electronic monitoring.
- Close open registries to fishing vessels and stop the use of flags of convenience by vessels fishing in their waters or importing to their markets.



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- Mandate and implement the near-term adoption of cost-effective digital tools that safeguard in a digital form key information on vessel registration, licenses, unloading records, catch location and information and crew documentation. These should be designed in such a way as to support a rapid move towards a universal, interoperable digital catch certification scheme.
- Publish information about beneficial ownership in all public lists and require companies to provide information on the true beneficial ownership when applying for a fishing licence, fishing authorisation or registration to their flag.
- Include provisions in legislation to identify where nationals are supporting, engaging in or profiting from IUU fishing, and implement deterrent sanctions against them. This effort can be aided by a register of vessels owned by nationals but flagged to other countries.
- Adopt international measures that set clear standards for fisheries vessels and the trade in fisheries products, including the FAO Port State Measures Agreement, the ILO Work in Fishing Convention (C188) and the IMO Cape Town Agreement.

These principles are primarily for states to implement, with the support, where relevant, of other stakeholders. They complement efforts needed in the private sector to increase due diligence throughout supply chains to identify and mitigate the risk of supplying illegal or unethical seafood to consumers. Through changing the opaque environment in which IUU fishing is able to thrive, we have a chance to advance sustainable, legal, and ethical global fisheries.

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