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Corruption in the Fisheries Sector: Import Controls, Transparency, and WWF Practice

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Key takeaways

» Corruption facilitates multi-billion dollar illegal, unreported, and unregulated (IUU) fishing operations. These activities not only deplete fish stocks and threaten sustainability, but directly threaten human health and well-being.

» Fishing supply chains are long, opaque and complex, creating numerous opportunities for corruption.

» Transparency initiatives are key foundational mechanisms for reducing the risk of corruption and preventing illegal fishing.

» Global standards, import controls, auditable catch documentation, and traceability requirements can incentivize changes to improve management and accountability.

Fisheries corruption: A complex and multi-layered challenge

Illegal, unreported, and unregulated (IUU) fishing is a huge global problem estimated to cost the global economy between 15 billion and 36 billion USD in direct losses annually (May 2017). IUU fishing harms marine ecosystems and the sustainability of fish stocks, threatens the livelihoods and food security of coastal communities, and often overlaps with other transnational crimes such as forced labor and trafficking of drugs, arms, and people.

Corruption facilitates IUU by threatening effective regulation and crime prevention at every stage of fishing operations. Although rarely covered in management or governance plans (Nunan 2018), corruption is increasingly recognized as a major challenge for the sustainable management of fisheries (UNODC 2019).[1] It can occur at all points along the supply chain, from the issuance of unauthorized vessel registrations and illegitimate licenses, to the intentional underreporting of fish at

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[1] This challenge is exacerbated by overfishing, slavery and organized crime, and other environmental risks such as pollution, climate change, and ocean acidification.

landing, to the sale of intentionally mislabeled fish. Figure 1 outlines some of the corruption risks that exist at different points in a seafood supply chain.

Compounding the problem, the global fisheries sector is a complex net of opaque activities composed of actors spread across multiple countries operating under different authorities and jurisdictions. This complexity provides numerous opportunities to break or avoid the law or to engage in corruption. It also obscures the activities of corrupt public officials who enable the wrongdoing (UNODC 2019). Some of this corruption is willing collusion, where a bribe is offered, and the rules are subverted. Other times, the corruption may involve extortion by one of the parties, for example, where a fisherman may bring their catch to a port but is not allowed to offload unless an official is given payment.

Corruption also occurs at all levels of management and oversight: at the international level (e.g., when
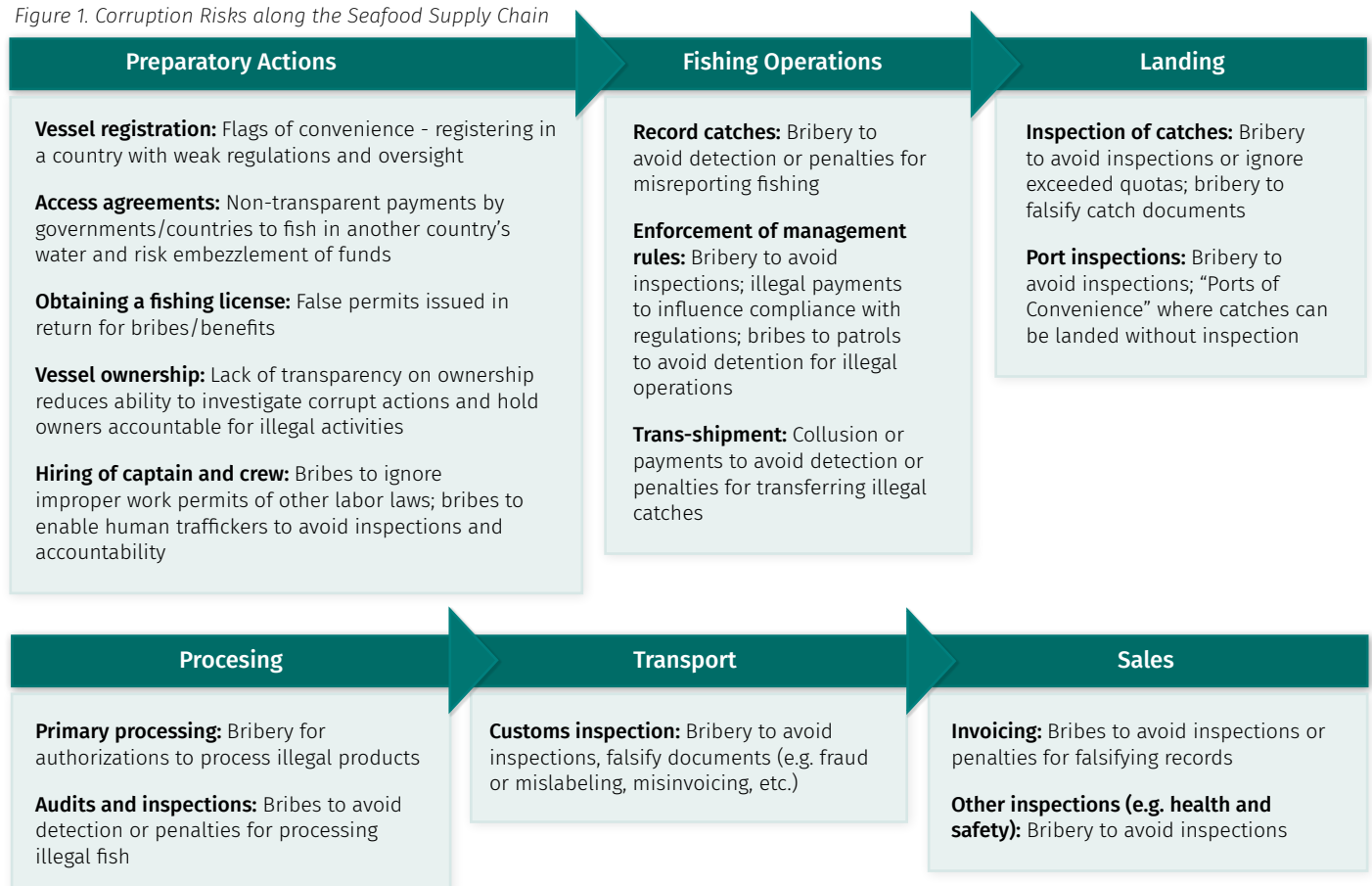
Key definitions

Weak Governance: Public authorities are unable or unwilling to perform their roles and responsibilities in protecting rights, providing basic services, and enforcing rules and regulations efficiently and effectively. Weak governance may result from corruption, but it may also result from resource limitations, poor legal frameworks, or other factors.

Illegal, unreported, and unregulated (IUU) fishing: A broad term that captures a wide variety of fishing activity that occurs both on the high seas and in areas within national jurisdiction. It concerns all aspects and stages of the capture and utilization of fish, and it may sometimes be associated with organized crime (FAO 2001).

Corruption: The abuse of entrusted power or authority (public trust) for private gain. Corrupt actions, or policies that are shaped by corruption, may facilitate IUU fishing.

Figure 1. Corruption Risks along the Seafood Supply Chain

Preparatory Actions

Vessel registration: Flags of convenience - registering in a country with weak regulations and oversight

Access agreements: Non-transparent payments by governments/countries to fish in another country's water and risk embezzlement of funds

Obtaining a fishing license: False permits issued in return for bribes/benefits

Vessel ownership: Lack of transparency on ownership reduces ability to investigate corrupt actions and hold owners accountable for illegal activities

Hiring of captain and crew: Bribes to ignore improper work permits of other labor laws; bribes to enable human traffickers to avoid inspections and accountability

Fishing Operations

Record catches: Bribery to avoid detection or penalties for misreporting fishing

Enforcement of management rules: Bribery to avoid inspections; illegal payments to influence compliance with regulations; bribes to patrols to avoid detention for illegal operations

Trans-shipment: Collusion or payments to avoid detection or penalties for transferring illegal catches

Landing

Inspection of catches: Bribery to avoid inspections or ignore exceeded quotas; bribery to falsify catch documents

Port inspections: Bribery to avoid inspections; "Ports of Convenience" where catches can be landed without inspection

Procesing

Primary processing: Bribery for authorizations to process illegal products

Audits and inspections: Bribes to avoid detection or penalties for processing illegal fish

Transport

Customs inspection: Bribery to avoid inspections, falsify documents (e.g. fraud or mislabeling, misinvoicing, etc.)

Sales

Invoicing: Bribes to avoid inspections or penalties for falsifying records

Other inspections (e.g. health and safety): Bribery to avoid inspections

access agreements between countries are negotiated, as Box 1 describes);[2] at the national and regional levels (e.g., when officials manipulate statistics in exchange for bribes or due to conflicts of interest); and at the level of processors, distributors, and retailers (e.g., through bribes to avoid inspections or get exceptions to labeling requirements). It also takes many forms, from bribery and extortion in enforcement authorities to political donations in exchange for favorable policy decisions. When illegal activity, such as use of forced labor or tax evasion, is detected, it may go unpunished due to corruption (UNODC 2019).

Transparency in the otherwise opaque fisheries sector is a means for beginning to address these problems (e.g., UNODC 2019). But transparency approaches are often insufficient to fully address corruption, especially in jurisdictions where weak governance means that rules are not enforced

and malfeasance, particularly by the powerful, is not effectively sanctioned. For example, a lack of effective governance and weak monitoring, control, and surveillance (MCS) capacity within a country contributes significantly to higher rates of illegal fishing (Standing 2008). Nevertheless, transparency reforms are usually the first and most common step towards greater overall openness and accountability (Ul-Aflaha, McNeil, and Kumagai 2020; Bajpai and Myers 2020).

The types and extent of corruption in the fisheries sector are vast, requiring different types of interventions at different levels of power. This paper describes three levels of anti-corruption efforts involving transparency:

1. the import control models of two major markets, the United States and the European Union;

2. industry efforts to develop standards for seafood traceability, specifically the Global Dialogue for Seafood Traceability (GDST); and

3. a technological approach at the local level, drawn from WWF's work with TrazApp in Peru.

As the analysis will show, each type has its successes and challenges in reducing opportunities for corruption. Some of these challenges result from the limitations any transparency-focused anti-corruption approach will face (e.g., Lindstedt and Naurin 2010), while others could be improved in design or implementation. Conservation and natural resource management (NRM) practitioners can therefore benefit from a stronger understanding of these measures. Our goal is to provide some lessons and perspective that can inform foundational efforts to enhance transparency in fisheries, reduce opportunities for fisheries corruption, and safeguard marine ecosystems.

Box 1: Access Agreements

Many countries have large distant water fleets and pay for access to fish in the jurisdiction of other countries. The details of these access agreements are not usually disclosed, which, combined with controversial overall terms, raises concerns about corruption. Ministers and other officials may accept bribes to enter into the agreements (Standing 2008), and larger countries may use donor funds or the threat of their removal to ensure the terms of agreements are favorable to the more powerful party (Martini 2013). In most cases the negotiation process is confidential, with no involvement from civil society or domestic fishing stakeholders. Even in cases where agreements are published, as in the EU, input from civil society is limited.

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[2] The lack of transparency around access agreements, combined with their controversial terms, has raised concern that forms of corruption occur during the negotiating stages. There are allegations of ministers and officials receiving bribes and kickbacks, and countries using donor funds or the threat of their removal to ensure the terms of agreements are favorable to the more powerful party (Martini 2013).

Promoting transparency through government and intergovernmental import controls

Learning from EU and US import requirements

The EU and the US are the two largest markets (by value) for imported seafood in the world ([FAO 2020](#)). Japan alternates with the US as the single largest country market for imported seafood in the world (by value). In an effort to combat IUU fishing and the entry of illegal products into their market, the EU (in 2008) and the US (in 2016) established import controls based on transparency around the legality of their imported seafood:

» The EU system introduced a unilateral catch document (known as the [Catch Certification Scheme, CCS](#)),[3] covering all marine wild-caught fish (with some exemptions) traded by non-EU countries into the EU market. This created a process for identifying nations that did not have sufficient measures in place to prevent corruption and illegality.

» The US system (known as the [Seafood Import Monitoring Program](#) or SIMP) covers 13 species of seafood identified as the most vulnerable to IUU fishing and seafood fraud, including both wild-caught and aquaculture species.[4] The US system does not require a validated catch certificate.[5]

Although the specifics differ somewhat, both systems require documentation of a set of key data elements (KDEs), designed to help establish the legality of fish catches. Required data include information on the who (e.g., vessel ID, flag state, onboard worker information), what (species), when (dates of fishing trips), where (location and management jurisdiction of catches) and how (gear type) of fishing operations.[6] All of these data are required to successfully trace a seafood product through all relevant stages of a supply chain.

Table 1 summarizes each system's strengths and weaknesses. Additional details are available in Annex.

Limitations and vulnerabilities to corruption

For the EU's paper-based system, challenges arise with the **amount and flow of information between member states**, undermining effective, united enforcement. Catch information is recorded on a paper document and then reviewed and validated by an official from the country where the catch is landed. Because of the volume of records, or because of a bribe to "look the other way", officials often **rubber-stamp the documents without conducting a serious review**. The **paper-based catch certificate** can also be photocopied and then used to launder in illegal catches.

Although catch information is recorded electronically in the US system, it is the importer who records it, well after the date of catch. The US system does allow (but does not require) officials to conduct random and targeted audits or inspections to review the data and

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[3] Council Regulation (EC) No. 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing (OJ L 286, 29. 10.2008).

[4] The US Program, implemented in 2018, is still in an initial phase, and only applies to 13 species groups, about 40% of the volume and value of imports. Those species' groups are abalone, Atlantic cod, blue crab, dolphinfish (mahi mahi), grouper, king crab (red), Pacific cod, red snapper, sea cucumber, sharks, shrimp, swordfish, and tunas (albacore, bigeye, skipjack, yellowfin, and bluefin).

[5] Other import control schemes have also been adopted by some Regional Fisheries Management Organizations (RFMOs) to monitor seafood imports and curb IUU fishing. Japan has also recently adopted its own set of import controls modeled on a hybrid approach adopting elements from both the EU and US systems.

[6] For a more in-depth comparison of the key data elements in both the EU and US system, please see: WWF et al. 2020. "[A comparative study of key data elements in import control schemes aimed at tackling illegal, unreported and unregulated fishing in the top three seafood markets: the European Union, the United States, and Japan](#)."

EU Catch Certification Scheme (CCS) Key Features	US Seafood Import Monitoring Program (SIMP) Key Features
» Fishery products can only be imported into the EU when accompanied by a completed and authorized 'catch certificate' (CC), **managed by the competent authorities (CA) of the flag state of the vessel catching the fish.** » Currently, an estimated 250,000 catch certificates (CC) are received annually across the EU, mostly in **paper format.** » Complementary Program: The EU also evaluates the compliance of third countries with their duties as flag, coastal or port or market States under international law. **Countries that are identified as having inadequate measures to comply can be issued official warnings or bans**, which has had a significant positive effect on noncompliant countries ([Janovsky 2018]).	» The US SIMP [collects data] similar to the key data and information that is required in the EU CC. » **SIMP requires importers to collect catch and landing documentation for certain fish and fish products via electronic submission of data.** Data on the harvest is then required along with additional supply chain data by the importer of record. » Complementary Program: **The US Fisheries Agency, NMFS, produces a biennial report on countries engaged in IUU fishing.**[7] Sanctions and penalties, including prohibitions on imports, are possible but, to date, the information has not been directly utilized in evaluating potential illegality.

Vulnerabilities to Fraud and Corruption
» **Both systems rely on self-declarations for key data, with only the EU system requiring an external authority's review and validation.** » **"Port inspectors in many poorer countries are under a lot of political pressure to not cause problems for foreign vessels, and to overlook or not enforce their duties."**[8] » Bribes to port officials reviewing paper-based catch documents may allow **photo-copied or duplicated documents to enter and thus pass off illegal catches as legal ones.** » **Neither system addresses legality or corruption issues that may occur in the licensing stage.** Additionally, neither system addresses the use of forced labor on-board fishing vessels or within the supply chain. » **Coordination between EU member states can be lacking,** allowing products to "slip through the cracks." » **The SIMP's lack of comprehensive coverage of species can incentivize intentional mislabeling** to avoid the SIMP.

Table 1. Strengths and Weaknesses of EU and US Transparency Requirements for Imported Seafood

catch information, but **because the review happens significantly after the catch, verification of the collected information is more difficult**. In addition, the US system currently only applies to 13 species groups that account for less than 40 percent of U.S. fishery imports by volume and value. This provides an **incentive for intentional mislabeling**. For example, Atlantic cod fillets, which are covered under SIMP, may be labeled as haddock or blue whiting, species similar in appearance but that are not covered by SIMP, in mixed shipments to avoid complying with the regulations.

Both systems share a key corruption risk in the **vulnerability of their underlying information**. Neither system would be able to identify if a piece of information (for example, the vessel registration, license, permit, or other authorization to operate) was obtained, established, or procured through a bribe

or other corruption. In SIMP, there is no requirement for any validation on the veracity of the data by any official responsible for the oversight of the catch, landings, or export of the product.

As a result, companies and vessels can use customs and document fraud to obfuscate the country or vessel of origin in order to land and profit from illegally harvested catch. These types of fraud can disguise the species, origin, and amount of catch landed and sold, undercutting effective fisheries management programs. Certain private facilities or ports have limited capacity to oversee vessels landing catch, and are susceptible to bribery and corruption. Otherwise known as ports of convenience, these ports facilitate fraud and evasion, permitting vessels to more easily misreport the value, quantity, or species of the catch ([Agnew et al. 2009]).

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[7] NOAA Fisheries. [Identification of IUU fishing activities].

[8] Pers. Convers. With NOAA Office of Law Enforcement. 6/19/19.

Promoting transparency through industry-level efforts and standards

Learning from WWF efforts to support improved industry standards

As the weaknesses discussed above show, transparency breakdowns occur particularly at the point of catch and the point of landing, where catch information is often reviewed. Recent efforts have included a focus on industry-wide transparency and traceability standards for these parts of the value chain, to help companies comply with growing regulatory demands to document the legality of fishing operations.

In the Spring of 2017, WWF launched the Global Dialogue for Seafood Traceability (GDST), undertaken as part of the Oceans and Seafoods Market Initiative and in collaboration with USAID's Seafood Alliance for Legality and Traceability. The GDST is a major industry forum, involving more than five dozen companies worldwide from across the seafood supply chain. After three years of technical work and the involvement of more than 60 companies and related organizations, the GDST released the core normative standards for interoperable seafood traceability systems in March 2020.

As shown in Table 2, the standards identify a set of key data elements (KDEs) and critical tracking events that are needed to ensure that a catch has been conducted legally and to maintain the security of the product as it moves through the chain of custody. The standards then lay out the requirements for seafood traceability systems to be interoperable. Complementary efforts in the field have digitally captured and transferred catch documentation and production information from harvesters through to US major buyers, using interoperable traceability systems that are consistent with the GDST standards.

Some producer and processor countries are now implementing similar requirements through the

Port State Measures Agreement – including specific information requirements that need to be met when wild fish products are brought into port. Such requirements have the potential to fundamentally improve how seafood is tracked through global supply chains. For example, properly captured KDEs at each critical tracking event would protect a shipment from the introduction of illegally or illicitly sourced products. Interoperable systems would also make it harder to import a shipment that was previously rejected by another jurisdiction. However, the standards are not without their limitations.

Limitations and vulnerabilities to corruption

Within the ongoing discussions at the GDST, two important factors have emerged: regulatory alignment and data verification.

Regulatory activity in the seafood traceability space is rapidly evolving in both producer and market countries around the world. This trend towards increased regulation can deliver some real benefits for reducing corruption and illegality in the seafood industry. However, if regulations expand in an uncoordinated manner, there is a danger of **proliferating incoherent requirements**. In addition, such regulation will not have a significant impact if it is not enforced. **Enforcement of regulation could itself become another opportunity for corruption** in weak governance scenarios (e.g., Damania et al. 2020).

Similarly, fisheries product-related data is **only valuable if it is trustworthy and verifiable**. But actors in the seafood industry—particularly those who work far from production and across many different supply chains—must often rely on verification systems maintained and controlled by others. This makes it harder, and more expensive, for companies to comply with new regulations, to prevent corruption, or to convincingly communicate with consumers.

In addition, as noted in the previous section, the original information entered into a traceability system could be obtained through a bribe or other corruption. Standards like the GDST would not be

Basic List of Key Data Elements (KDEs)	Critcal Tracking Events (CTEs)						
	Catch	On-Vessel Processing	Transshipment	Landing	Aggregation / Disaggregation	Ship / Receive	Processing
VESSEL DATA							
Vessel Name	X	X					
Vessel Registration	X	X					
Unique Vessel Registry Hyperlink	X	X					
Vessel Flag	X	X					
Availability of Catch Coordinates	X						
Satellite Vessel Tracking Authority	X						
Transshipment Vessel Name			X				
Transshipment Vessel Unique Vessel ID			X				
Transshipment Vessel Registration			X				
Transshipment Vessel Flag			X				
CATCH DATA							
Catch Area	X						
Fishery Improvement Project	X						
Vessel Trip Date(s)	X						
Date(s) of Capture	X						
Gear Type	X						
Production Method	X						
TRANSSHIPMENT DATA							
Transshipment Location			X				
Dates of Transshipment			X				
LANDING DATA							
Landing Location				X			
Dates of Landing				X			
PROCESSING DATA							
Expiry/Production Date		X					X
Product Origin		X					X

Basic List of Key Data Elements (KDEs)	Critcal Tracking Events (CTEs)						
	Catch	On-Vessel Processing	Transshipment	Landing	Aggregation / Disaggregation	Ship / Receive	Processing
CERTIFICATIONS AND LICENSES							
Fishing Authorization	X						
Harvest Certification	X						
Harvest Certification Chain of Custody		X	X		X	X	X
Transshipment Authorization			X				
Landing Authorization				X			
Existence of Human Welfare Policy	X	X	X	X			X
Human Welfare Policy Standards	X	X	X	X			X
TRACEABLE OBJECT INFORMATION							
Species	X	X	X	X	X	X	X
Product Form	X	X	X	X	X	X	X
Item/SKU/UPC/GTIN	X	X	X	X	X	X	X
Linking KDE (batch, lot, or serial number)	X	X	X	X	X	X	X
Weight or Quantity	X	X	X	X	X	X	X
Unite of Measure	X	X	X	X	X	X	X
TECHNICAL DATA FOR EVENT IDENTIFICATION							
Event ID	X	X	X	X	X	X	X
Event Date, Time, and Time Zone	X	X	X	X	X	X	X
Event Read Point (Geolocation)	X	X	X	X	X	X	X
Product Ownership	X	X	X	X	X	X	X
Information Provider	X	X	X	X	X	X	X

Table 2. GDST Key Data Elements

sufficient to prevent that corruption. A traceability system could even mask the corruption, and give the appearance that an illicit product is legitimate.

Problems like these have plagued the mahi fishery in Peru, which is the subject of the next section.

Promoting transparency through local technological measures

Learning from WWF ongoing work in Peru on digital authorizations

In Peru, corruption has made responsible fisheries management, particularly oversight of authorizations to fish, catch documentation, and traceability schemes, more difficult and unreliable. Corruption in Peru's fisheries has been estimated to cost the country around 500 million USD per year (Andina 2019), and small-scale fisheries, many of which are important for coastal livelihoods and food security, are not immune to its impact (WWF Peru).[9]

The Peruvian mahi mahi, or dolphinfish (*Coryphaena hippurus*), fishery accounts for around 50% of worldwide production of that species.[10] Many Peruvian mahi mahi operators lack the ability to ensure the legality of their catches, as the fleet has developed very quickly and has become relatively unsupervised and unmanaged in the process. This has resulted in high levels of informal fishing and corrupt practices, enabled by burdensome and irregular administrative procedures, weak enforcement, a lack of accountability, and a normalization of corruption. Under these conditions, it is difficult to obtain verifiable information necessary to establish the legality of catches and to comply with SIMP and other regulations.

A specific current problem, according to many

fishers, is that officials from the General Directorate of Captaincies and Coastguards (DICAPI)[11] request payments and extort fishermen in exchange for an authorization to fish (Pesca Artesanal Noticias Perú 2016). When a fisher wants to set sail, they must first request a "departure certificate," an official authorization to operate. This certificate currently needs to be requested personally in a DICAPI office, so in some cases, fishers who live far away from an office or otherwise perceive the process as burdensome set sail without requesting the document. Other fishers avoid doing so in order to use illegal fishing methods or to fish during closed seasons. The unauthorized operations are then "solved" unofficially between fishers and DICAPI when fishers return to port. Fishers often report having to make unofficial payments to DICAPI officials to avoid penalties for not having a departure certificate, or to "convince" an official that their certificate is real.

This corruption from both DICAPI and fishers affects the governance and sustainability of the fisheries. Non-compliance weakens the institution, especially in a context in which corruption is rampant and trust in relationships between authorities and citizenship is already weak. DICAPI and other bodies then cannot prevent the illegal fishing practices, such as the use of prohibited gears and operating during closed seasons, that threaten the sustainability of the fisheries.

Since 2012, WWF has been working with the fishery to put in place some tools to help address its corruption and responsible management problems. WWF identified several of the major challenges along the supply chain, including the corruption involved with the process to obtain permitted authorizations to fish, and the lack of a robust, transparent information system. WWF proposed an interoperable traceability system that could record key data elements to ensure products' traceability and limit the opportunities for corruption.

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[9] More than 60 thousand fishers and their families depend on this activity, and in some cases, they sustain important export markets such as mahi mahi and jumbo squid. For example, these fisheries account for more than 40% of artisanal landings and their exports add up to over 600 million USD.

[10] Over 80% of Peru's exports are destined for the U.S. market.

[11] DICAPI is a branch of the Navy in charge of safety at sea.

As part of this system, WWF and DICAPI agreed to allow fishers to formally register their vessels and request the departure certificate digitally using a mobile application developed by WWF. The TrazApp application minimizes the number of unrecorded interactions between fishers and officials and establishes a standard electronic format that is not as easily manipulated as a paper-based process (see Box 2). This aims to reduce the opportunities for bribes and help build trust in a fairer system, increasing buy-in for additional sustainable management requirements.

Limitations and vulnerabilities to corruption

Technological approaches to anti-corruption aim to reduce overall corruption levels and risks of extortion and to increase the overall amount of information collected for prevention of illegal fishing operations. However, the technology developed may simply shift the corruption and extortion elsewhere, to a part of the system not covered with the technology, or may create new opportunities for abuse (Adam and Fazekas 2018). The technology also does not address corruption issues like bribes for preferential access for companies or fishing operators, and how that may be further undermining responsible management of the fishery.

Box 2: TrazApp

WWF has piloted TrazApp with two fishing cooperatives in La Islilla and La Tortuga in the Piura region of Peru. Over 200 users from 300 fishing vessels are now using the app to register their catches. They have registered over 2,000 fishing trips and more than 25,000 tons of catches.
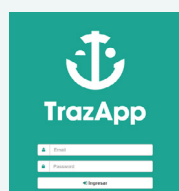
Lessons and recommendations

The approaches highlighted in this paper only address some forms of corruption in fisheries, and while import controls and transparency of catch and the supply chain may make some inroads in curbing corruption, this paper has indicated the risks and vulnerabilities that remain. Transparency approaches alone will not fully solve illegal payments to influence fisheries management regulations (UNODC 2011) or to hide catches (MRAG and CapFish 2008). Rather, a mix of anti-corruption measures is clearly needed to address the broad range of corruption risks in the fisheries sector. These measures include rule of law improvements, policing and law enforcement, transparency, accountability, and traceability, and onboard efforts to count and fully document what fish is caught. These measures and their use require initiatives and strong support at the national, regional, and international level.

However, transparency can help. In addition to the approaches discussed above, transparency can help prevent political influence or illegal payments for unfair or unsustainable access agreements (Martini 2013). More transparent and complete licensing of fishing vessels would unmask the real beneficiaries in the countries whose resources are being used (Pitcher et al 2009), facilitating identification of the provenance of the fish entering the market. Publishing the details of licensing agreements and catch information can help enhance accountability among government officials at all levels (Standing 2008).[12]

Despite the myriad challenges and issues of corruption in the fisheries sector, there are several steps that practitioners can support to build on existing transparency-based accomplishments. Movement toward implementing the recommendations below would increase the responsible management of exploited fish stocks by

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[12] Often officers are poorly paid and inadequately resourced to perform their duties. When they see their superiors engage in corruption without being punished, a sense of unfairness and demoralization can prevail.

increasing oversight and transparency of operations, making some types of corruption tied to illegal fishing that much harder to get away with.

» **Electronic collection and reporting:** All monitoring systems need to move towards electronic systems. This would allow for coordinated enforcement, and while not fraud-proof, digital systems make it much more difficult to alter or duplicate the data, and much easier to verify it.[13]

» **Identification and registration of vessels:** Information on the ownership and registration of vessels should be publicly available. Import control systems and catch documentation should require that vessels have unique identifiers, containing the identity of the beneficial owner of the vessel, permit and license information, and all authorizations to fish.

» **Transparency of vessel movement:** Continuously operating automatic identification systems (AIS) should be required on all vessels. The unique maritime mobile service identity (MMSI) for a vessel's AIS, if reported in catch documentation, allows enforcement officials and other stakeholders to verify the location of catch and landing.

» **Monitoring of catches:** The use of onboard cameras and independent fishery observers should be used to ensure accurate reporting of catch and bycatch information, and that operators abide by fisheries regulations.

» **Prohibition on transshipment:** Transshipment at sea should be wholly or partially banned, since it allows ships fishing illegally to evade monitoring and enforcement. It can also facilitate the trafficking and exploitation of workers who are trapped and abused on fishing vessels.[14]

» **Port State Measures:** States should adopt and fully implement the Port State Measures Agreement (PSMA), in force since 2016. Improved compliance with the PSMA's controls on foreign-flagged vessels exposes states to fewer high-risk vessels (Pew 2019).

» **Traceability of chain of custody:** Traceability systems should allow regulators and enforcement officials to access their information, but in a way that can prevent potential abuse.

» **Transparency of fishing access agreements:** Information regarding the details of foreign access agreements should be openly published by all parties.

» **International alignment on regulation and verification:** Future work in the GDST should promote cost-effective verification standards and practices and means to encourage their widespread adoption. Similarly, the GDST and industry should promote international alignment of regulatory approaches that are coherent, coordinated, and appropriate on a global basis.

Acknowledgements

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[13] The EU fishery ministry DG Mare has recognized this weakness and is developing a digitized import database for catch documentation known as CATCH. This system will be voluntary, at least in the early stages.

[14] In 2015, only five of 17 fisheries management organizations (IATTC, GFCM, ICCAT, IOTC, and WCPFC) had mandated even a partial ban on transshipment at sea and only one, the South East Atlantic Fisheries Organization (SEAFO), had mandated a total ban on transshipment (Ewell 2017).

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Annex: Detailed Strengths and Weaknesses of EU and US Transparency Requirements for Imported Seafood

	EU Catch Certification Scheme (CCS)	US Seafood Import Monitoring Program (SIMP)
Purpose	» **The EU CCS was designed to improve the traceability of all fisheries products traded with the EU**; specifically to restrict the importation of IUU catches into the EU and to complement other aspects of the IUU Regulation such as port state control, mutual assistance between EU Members, a Community alert system, and a system of listing non-cooperating third countries.	» The US introduced its IUU program in 2016 by promulgating the SIMP, regulations which **require importers to establish traceability throughout their supply chains and provide key catch information as a precondition for market access**. The US Program, implemented in 2018, is still in an initial phase, and only applies to 13 species groups, about 40% of the volume and value of imports.
Key Features	» Traceability of fishery products is promoted through a requirement that all fishery products can only be imported into the EU when accompanied by a completed and authorized 'catch certificate' (CC). **The authorization of CC is managed by the competent authorities (CA) of the flag State of the vessel catching the fish. It is the responsibility of the CA to verify and certify that the catches concerned have been made in accordance with applicable laws, regulations and international conservation and management measures.** The CA also needs to verify and certify any other relevant documents, e.g. post-transshipment, transit, or processing of the products in a third country. The EU CC system has been in place since 2010 and, currently, an estimated 250,000 catch certificates (CC) are received annually across the EU, mostly in paper format.	» The US SIMP collects data regarding the harvest, landing, and chain of custody of certain fish and fish products imported into the US similar to the key data and information that is required in the EU CC. As with the EU CC system, the aim of the program is to ensure that imported fish and fish products derived from illegal sources can be excluded from entry into US markets. **The US program (SIMP) requires importers to collect catch and landing documentation for certain fish and fish products via electronic submission of data.** The information is collected through the government-wide International Trade Data Systems (ITDS) electronic single window. **Data on the harvest of fish and fish products is then required along with additional supply chain data by the importer of record.**[15]
Complementary Programs	» Under the IUU Regulation, **the EU also evaluates the compliance of third countries with their duties as flag, coastal or port or market States under international law**. Countries that are identified as having inadequate measures to comply with IUU rules may be issued with a formal warning ("yellow card") to improve. If they fail to do so, they may receive a "red card", whereby their fish are banned from the EU market. This has had a significant effect on countries that have received "yellow" or "red cards", with almost every country listed making improvements to the management of its fisheries so that the bans can be lifted and their products are once again able to be exported to the lucrative EU market (Janovsky 2018).	» **The US Fisheries Agency, NMFS, produces a biennial report on countries engaged in IUU fishing.**[16] Sanctions and penalties, including prohibitions on imports, are possible for nations that are listed as having engaged in IUU fishing. To date though, the information in this report, however, is not directly utilized in evaluating potential legality of the information collected under SIMP.
Systems' Mutual Vulnerabilities to fraud and corruption	» Both the EU and the US systems require similar data as a proxy for establishing legality – the vessel identity, license, registration, flag state, location of catch, species of catch, gear type, volumes landed, etc.[17] However, **both systems rely on self-declarations for these key data elements, with only the EU system requiring an external authorities' review and validation**. This leaves both systems vulnerable to fraud and corruption, without further monitoring, control, and surveillance (MCS) measures and systems in place to independently verify the legality of the data claims made in the catch documentation.	

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[15] The US authorities are theoretically able to verify that the fish or fish products were lawfully acquired as the information provided will allow them to trace individual import shipments back to the initial harvest event(s) i.e. trip based not individual fishing event. The US Program also requires the reporting of accurate species information at the point of import and requires the retention of documentation along the supply chain so that the information reported at import (e.g. regarding species and harvest location) can be verified at all points in the supply chain.

[16] NOAA Fisheries. Identification of IUU fishing activities.

[17] For a more in-depth comparison of the key data elements in both the EU and US system, please see: WWF et al. 2020. "A comparative study of key data elements in import control schemes aimed at tackling illegal, unreported and unregulated fishing in the top three seafood markets: the European Union, the United States, and Japan".

Systems' Mutual Vulnerabilities to fraud and corruption (cont.)	» Enforcement officials reviewing catch documentation and pursuing investigations for fraud and trade in illegal seafood have noted that **"port inspectors in many poorer countries are under a lot of political pressure to not cause problems for foreign vessels, and to overlook or not enforce their duties."**[18] Additionally, bribes to port officials reviewing paper-based catch documents, that are the basis of the EU system and accepted where applicable in the US system, may allow photo-copied or duplicated documents to enter and thus pass off illegal catches as legal ones. Bribes may be in the form of money/cash or in fish (i.e frozen tuna "gifted" to enforcement officers). Preventing fraud when recording total volumes and species of fish caught, however, requires additional protections – including the use of on-board cameras and other vessel monitoring, including ideally independent observers. » **Neither system addresses legality or corruption issues that may occur in the preparation stage – when licenses, registrations, permits, quota allocations, and other management requirements may be obtained through corruption.** Additionally, neither system addresses the use of forced labor on-board fishing vessels or within the supply chain. Migrants may often be targeted for cheap forced labor with port and enforcement officials looking the other way or accepting payments to allow practices that lead to forced labor to persist.

	EU Catch Certification Scheme (CCS)	**US Seafood Import Monitoring Program (SIMP)**
Other Vulnerabilities to fraud and corruption	» A recent analysis of the EU IUU regulation found **there is a clear need for an electronic catch certificate to allow for information on consignments to be exchanged between member states, and to ensure that products rejected in one member state are not permitted entry to the EU market via another member state** ([Mundy 2018](#)). Furthermore, the (re-) routing of products via certain transit states shows how effective coordination between the transit and destination state is needed to ensure that catch certificates are effectively scrutinized and do not 'slip through the cracks'. » **Document fraud is an issue that the EU faces in the implementation of its catch certificate for imports.** In the EU system, the catch information is recorded on a paper document and then reviewed and validated by an official from the country where the catch is landed. Because of the volume of records, officials often rubber-stamp the documents without conducting a serious review. Officials are occasionally bribed to "look the other way" by captains or vessel owners to avoid scrutiny. » **The paper-based catch certificate is sometimes photocopied and then used to launder in illegal catches.** Catch certificates containing misreported information are also often allowed to enter supply chains because of bribes to port or landing officials to overlook or even certify the fraudulent forms. This fraud and corruption are facilitated and enabled by the fact that the documents are paper based. » **While electronic reporting of catch information is not fraud-proof, it is much more difficult to alter and/or duplicate the data that is recorded once entered digitally.** Furthermore, electronic reporting of some of the catch data – i.e. vessel license and registration information, location of the vessel, authorizations to fish, etc. - allows for more rapid review and verification by enforcement authorities who may be monitoring and/or surveilling fishing vessel activity in their waters.[19]	» In the US system, the catch information is recorded electronically by the importer of record, which occurs prior to entry of the product into the market, and well after the date of catch. A key weakness is that **there is no requirement for any review or validation on the veracity of the data by any official responsible for the oversight of the catch, landings, or export of the product**. The US system does allow officials to conduct random and targeted audits or inspections to review the data and catch information, but because the review happens significantly after the catch, verification of the collected information is more difficult. » The absence of comprehensive coverage for all seafood imports in SIMP is a serious impediment to establishing the legal origin of fish products entering the U.S. market. **The US system currently only applies to 13 species groups and accounts for less than 40% of U.S. fishery imports by volume and value.** The current partial implementation of the program provides an incentive for mislabeling between SIMP-covered and non-SIMP products. » Irrespective of the route to market, products are often combined from different sources or species that are difficult to distinguish and may be mislabeled. For example, Atlantic cod fillets, which is covered under SIMP, may be labeled as haddock or blue whiting, species similar in appearance which are not covered by SIMP, in mixed shipments to avoid complying with the regulations. **Multiple species from multiple jurisdictions may all bear the same packaging for export, masking the origins and actual extent of fishing for the species.** Current practices and corruption that facilitates the trade in illegal fish, thus allow those products to be concealed, mixed indistinguishably into legal product flows because the requirements are not uniformly applied to all imported seafood.

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[18] Pers. Convers. With NOAA Office of Law Enforcement. 6/19/19.

[19] The EU fishery ministry DG Mare has recognized this weakness and is in the process of developing a platform that is a digitized import database, for collecting the catch documentation through an electronic reporting system known as [CATCH](#). (This system is still in developed, and planned to be voluntary, at least in the early stages.)