THE OUTLAW OCEAN REPORT

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Labor Abuses in Seafood Supply Chains

Stanford Center for Ocean Solutions and the Stanford Law School Law & Policy Lab

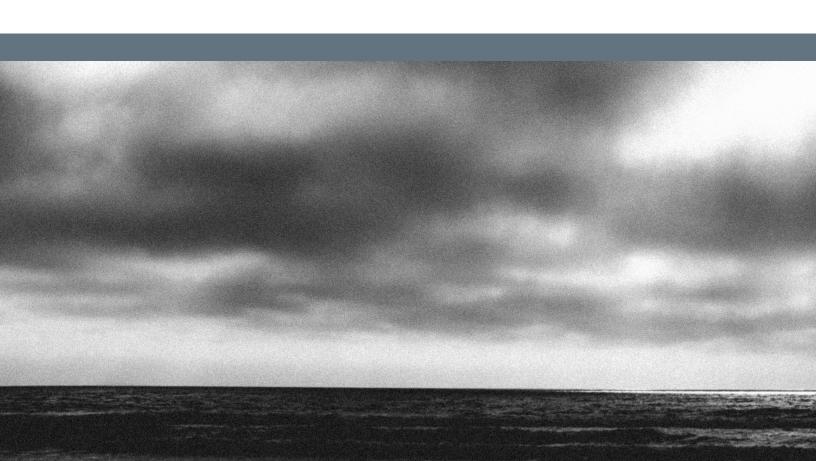


I. Addressing Labor Abuse in the Global Fishing Industry through a Digitized Multiuser, App-Based Contracting and Payments System

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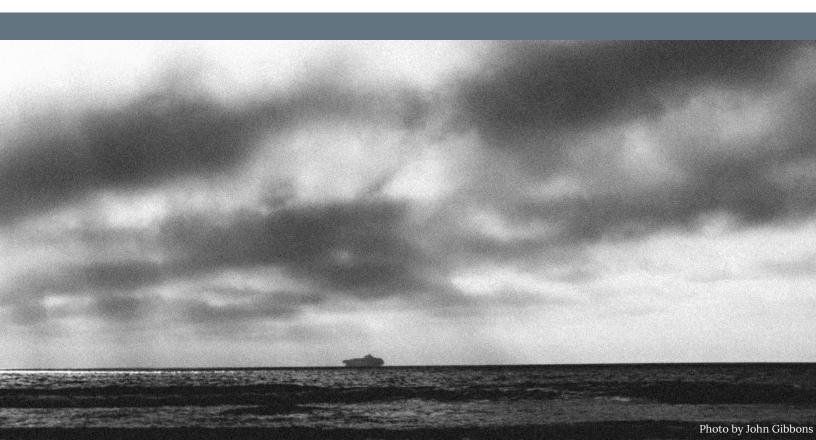
Abstract

The world's fisheries continue to play an ever more important role in global food, nutrition and employment. In 2018, the global fisheries sector reached an all-time high of 96.4 million tonnes of fish capture. Increased captures are directly linked to growing consumption of seafood products, which accounted for 17% of global intake of animal protein in 2017. A multi-billion dollar industry, the fishing sector employs approximately 39 million laborers within capture fisheries. However, decreasing revenues coupled with an ever increasing demand for seafood products has led to the exploitation and abuse of crew members in the seafood industry. This is systematically worsened through racism, xenophobia, and poverty experienced by many migrant laborers. IUU fishingwhich can make up to 30% of all catches in some regions—only further exacerbates declining fish stock populations, driving up fuel costs as vessels stray further and further to meet their individual quotas, further enabling exploitation of workers. Given the remote nature of fishing vessels, it is difficult to track, quantify, and report abuse and forced labor that occurs at sea. This report summarizes the findings of a study on how technology can create more transparency and accountability within the fisheries sector. The research team conceptualized an app called FLOAT (Fisheries Labor Open Accountability Tool) which digitizes the payments and contracting system to allow fishing laborers, vessel owners, seafood buyers, and all members of the seafood supply chain to have greater access to information and support.



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A. Introduction

The world's fisheries continue to play an ever more important role in global food, nutrition, and employment. In 2018, the global fisheries sector reached an all-time high of 96.4 million metric tons of fish capture.¹ Increased captures are directly linked to growing consumption of seafood products, which accounted for 17 percent of global intake of animal protein in 2017.² This continued growth is represented in the global seafood industry's estimated value, which by 2018 was about \$US164 billion.³ A multibillion-dollar industry, the fishing sector employs approximately 39 million workers within capture fisheries.⁴

However, decreasing revenues coupled with an ever-increasing demand for seafood products has led to the exploitation and abuse of crew members in the seafood industry. These issues are systematically magnified through racism, xenophobia, and poverty experienced by many migrant workers in Southeast Asia and other parts of the world. Moreover, illegal, unreported, and unregulated (IUU) fishing—which can make up to 30 percent of all catches in some regions—only further exacerbates declining fish stock populations, driving up fuel costs as vessels stray further and further to meet their individual quotas. These costs are then typically sustained by cheap migrant workers, who become victims of human rights abuses and exploitative working conditions. Given the remote nature of fishing vessels, it is difficult to track, quantify, and report abuse and forced labor that occurs out at sea.

This report will focus primarily on the specific role contracts play in the employment and payment of migrant workers within the Indonesian fishing industry and how we can reconceptualize a new digitized contract-payment system to combat the use of forced labor in the industry. While a majority of our data comes specifically from the Southeast Asian region, our proposed idea may apply to industrial fisheries operations in other regions and industries as well. This new digital platform aims to alleviate issues of transparency and durability found in the current paper contract system, which is not streamlined, digitized, or inclusive to migrant workers of different nationalities, languages, and literacy levels.⁸ Given that Southeast Asia has one of the fastest emerging smartphone markets in the world and that 90 percent of all internet users in the region are smartphone users, a digital platform could prove useful in increasing engagement, accessibility, and coordination within the current system.⁹, ¹⁰

- 1 "The State of World Fisheries and Aquaculture 2020," Food and Agriculture Organization of the United Nations, accessed October 25, 2020, http://www.fao.org/state-of-fisheries-aquaculture.
- 2 Ibid.
- 3 Ibid.
- 4 Ibid
- 5 Environmental Justice Foundation, Pirates and Slaves: How Overfishing in Thailand Fuels Human Trafficking and the Plundering of Our Oceans (2015), accessed October 25, 2020, https://ejfoundation.org/reports/pirates-and-slaves-how-overfishing-in-thailand-fuels-human-trafficking-and-the-plundering-of-our-oceans.
- 6 Environmental Justice Foundation, Blood and Water: Human Rights Abuse in the Global Seafood Industry (2019), accessed October 25, 2020, https://ejfoundation.org/resources/downloads/Blood-water-06-2019-final.pdf.
- 7 Ibid
- 8 Emily Kelly, personal communication, October 27, 2020.
- 9 Rayna Hollander, "Southeast Asia Could Be a Leader in Mobile Internet Usage Next Year," Business Insider (December 13, 2017), accessed October 27, 2020, https://www.businessinsider.com/southeast-asia-could-be-a-leader-in-mobile-internet-usage-next-year-2017-12.
- 10 "Mobile Internet Usage Trends in Asia-Pacific," Internet Society, accessed October 27, 2020, https://www.internetsociety.org/wp-content/uploads/2017/08/Mobile20Internet20Usage20Trends20in20Asia-Pacific.pdf.

Supported by desktop research and expert interviews with legal scholars, seafood distributor executives, international nonprofits, and human rights scholars, this report investigates the potential for a digital system capable of initiating a supply chain accountability model through which public-facing distributor brands can ensure contractual fair treatment and timely payment of workers. It provides a general overview of current contract practices and a comprehensive analysis of possible digital contract structures that are capable of incorporating multilateral agreements and facilitating enforceability among various stakeholders and jurisdictions. While our team was not able to interview a fishing crew member—the primary beneficiary of our proposed digital platform—we attempted to center their voices through our interviewees and the gray literature we researched.

B. Background

While hard to detect and quantify, forced labor and inadequate work conditions are a reality for many workers in the fishing industry. Depleting fish stocks due to overfishing—and IUU fishing in particular—pressure vessel owners to travel farther out sea, for longer periods of time, to increase catch sizes and attain higher revenues. In addition to longer stretches of time working, workers may be subjected to substandard working and living conditions on board and be victims of wage theft as owners seek to reduce labor costs associated with long-distance journeys. Given existing racism and xenophobia in a migrant worker–heavy industry, fishing workers are often denied social protections and labor rights that would ensure adequate payment and treatment.

1. Existing Contract Structures

Currently, paper-based contracts are the most common form of labor agreement used within the fishing sector. However, the labor rights and working conditions that these contracts are meant to ensure are often completely absent, exploitative in practice, inaccessible to workers, and/or disconnected among different stakeholders.¹⁵, ¹⁶ For example, when South African authorities detained a 380 GT Taiwanese vessel in May of 2018, they applied the International Labour Organization's (ILO) Work in Fishing Convention (C188) as legal standard and found various abuses and labor violations against workers on board and the complete absence of worker contracts for a majority of the crew.¹⁷ Two inspectors from the South African Maritime Safety Authority (SAMSA) inspected the vessel at port after complaints from workers aboard the ship. C188 requires that workers have a written agreement with the vessel's owner. Moreover, the use of migrant workers from varying nationalities coupled with the fact that many workers may be illiterate creates

¹¹ International Labour Office, Caught at Sea: Forced Labour and Trafficking in Fisheries (2013), accessed October 27, 2020, https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_214472.pdf.

¹² Ibid.

¹³ Uwe Tietze, Techno-Economic Performance of Marine Capture Fisheries (Rome: Food and Agriculture Organization of the United Nations, 2001), 19, accessed October 27, 2020, https://books.google.co.th/books?id= $_6$ -k-XebM7IC&printsec=frontcover&hl=th&source=gbs_ge_summa-ry_r&cad=0#v=onepage&q&f=false.

¹⁴ Jessica L. Sparks, Social Conflict on the Seas: Links Between Overfishing-Induced Marine Fish Stock Declines and Forced Labor Slavery (2018), https://digitalcommons.du.edu/etd/1473/.

¹⁵ Supra, note 6.

¹⁶ Mike Kraft, personal communication, October 27, 2020.

^{17 &}quot;First Fishing Vessel Detained under ILO Fishing Convention," International Labour Organization (July 17, 2018), accessed October 27, 2020, https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_634680/lang--en/index.htm.

This new digital platform aims to alleviate issues of transparency and durability found in the current paper contract system, which is not streamlined, digitized, or inclusive to migrant workers of different nationalities, languages, and literacy levels.



issues of translation and enforcement when the stakeholders involved speak different languages or simply do not understand the contents of the contract(s) they are signing.¹⁸

Based on analysis of two paper employment contracts from Indonesia and Philippines, it is evident that provisions vary from contract to contract depending on the country and/or company. Generally, employment contracts these provisions identifying the parties to the contract, placements of the contractor, wages, work hours, work duration, and terms of termination. Where they tend to vary is in whether they provide for terms of repatriation, transferring ships,

compensation insurance, and collective bargaining, among other details. These contracts ideally should also specify grievance mechanisms and issues of transportation and should clearly define labor expectations to safeguard workers' rights. Moreover, no explicit provisions prohibited the use of forced labor or child labor, discrimination in the workplace, or abuse, to name a few issues.

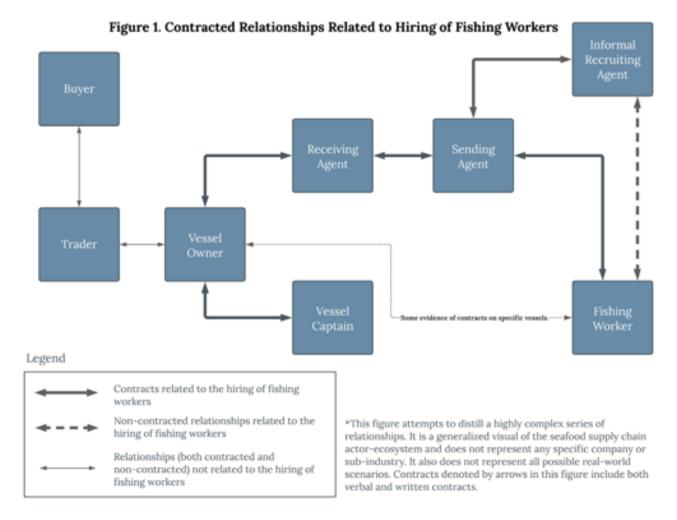
In analyzing the Indonesian and Filipino contracts, it is immediately clear that these contracts—if representative of labor contracts in the industry—highlight not only a general ambiguity in regard to labor duties but also a lack of stipulations on health, safety, and accommodations, transportation, and the prohibition of discrimination and abuse. Interestingly, some contracts seem to mention the issues of transportation but stipulate only that it is the responsibility of the contractor to secure transportation in the event of termination. Unclear job expectations and provisions that seem to favor the principal over the contractor suggest that labor contracts—as generally formatted in the industry—may promote an easily exploitable workforce. To better advocate for a more transparent, efficient, and just industry, these key provisions should be standardized across the sector's labor contracts.

Indonesia is a signatory on the United Nations' (UN) Universal Declaration of Human Rights, the UN Guiding Principles and Sustainable Development Goal 8: "Decent Work and Economic Growth." Indonesia has also ratified all eight fundamental ILO Conventions, which require the government to ensure decent working conditions and address forced labor. However, forced labor continues to be a legal problem for Indonesia as "overlapping Indonesian government legislation and regulations [have] created confusion over the responsibilities of key government

¹⁸ Jessie Brunner, personal communication, October 15, 2020.

¹⁹ International Labour Organization, Indonesia's Fisheries Human Rights Certification System: Assessment, Commentary, and Recommendations (Jakarta, 2019), accessed November 16, 2020, https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_713924.pdf.

bodies responsible for the oversight of worker recruitment, conditions, and monitoring of fishing companies, manning agencies, and fishing vessels."²⁰



2. Existing Contractual Relationships

The enforceability and transparency of contractual relationships within this labor system are undermined by the implication of multiple national jurisdictions and international waters, practices like transshipment,²¹ and the use of flags of convenience (FOCs).²² Moreover, the web of actors involved in these contracts—from sending recruiters to individual fishing workers—varies from worker to worker and is currently not a streamlined process. Although variation exists among particular supply chains, Figure 1 above illustrates a web of contractual relationships one might expect in the fishing industry.²³

²⁰ M. A. Santosa, et al., Report on Human Trafficking, Forced Labour and Fisheries Crime in the Indonesian Fishing Industry (2016), http://un-act.org/publication/view/report-human-trafficking-forced-labour-fisheries-crime-indonesian-fishing-industry/.

²¹ David Tickler, et al., "Modern Slavery and the Race to Fish," Nature Communications 9, no. 1 (2018): 1-9.

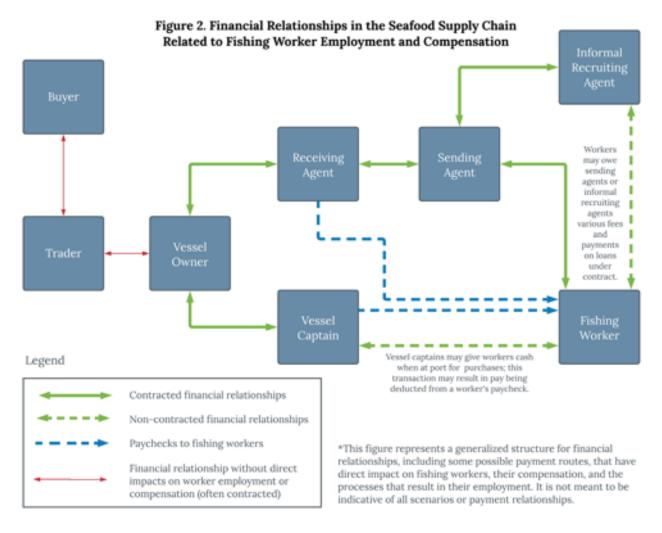
^{22 &}quot;Flags of Convenience," International Transport Workers' Federation, accessed November 6, 2020. https://www.itfglobal.org/en/sector/seafarers/flags-of-convenience

²³ Emily Kelly, personal communication, October 9, 2020.

- Workers and sending agents: Sending agents travel to workers' home villages and offer potential workers the opportunity to travel elsewhere for jobs. The sending agents may not specify what type of work they are recruiting for, leading the workers to believe that they will be getting jobs in construction. Local recruiters may work with sending agents to identify potential workers; presumably, they would contract with the sending agents to receive a sum for every worker recruited, even if no contract was formed between the local recruiters and the workers' minimum-wage standards. Contracts between boat owners and receiving agents presumably are formed within the boat owners' country of origin, in the boat owners' native language.
- Any existing contracts signed between the workers and sending agents are currently in paper and risk not being formed or even explained in the workers' native language. Because workers may need to travel over international borders to reach the port from which they will be departing, the location of the contracts' formation and the controlling jurisdiction may also be unclear. Sending agents often directly pay recruited workers for their labor.
- Sending agents and receiving agents: Sending agents may send recruited workers to receiving agents who will meet them in the country from which the fishing boat will depart. It is not clear whether sending agents and receiving agents always work for the same employer; if so, contracts may need to exist between the sending and receiving agents.
- Boat owners and receiving agents: Boat owners contract receiving agents to recruit a certain number of workers for their boat. In several countries, such receiving agents are required to be licensed and registered; for example, a recent Taiwanese law mandates that boat owners contract labor through registered and regulated receiving agents who are bound to certain minimum-wage standards. Contracts between boat owners and receiving agents presumably are formed within the boat owners' country of origin, in the boat owners' native language.
- Vessel owners and boat captains: Boat owners contract with boat captains to oversee management of the fishing boat and its workers.

3. Existing Payment Structure

The existing payment structure in the fishing industry is also complicated by the remote nature of fishing vessels and the intricate transactions between various stakeholders within the supply chain.²⁴ Payment structures vary across the industry due to differing crew payment timeframes and practices such as recruitment fees and debt bondage—further facilitating the exploitation of crew workers. Figure 2 traces a typical payment flow found in the longline fishing industry.²⁵ Fishing methods may affect payment frequency for workers. For example, whereas longline fishers may expect to be paid on a monthly contractual basis, purse seine fishers may be paid per ton catch. Whether fishers are paid on a monthly basis or a per-catch share, both payment schemes function fairly similarly in that captains/boat owners continue to hold worker debt. A



catch-share payment system has the potential to further exploit and overwork fishing crew as payments are more volatile, workers may work for longer periods of time to get larger catches, and workers may not be aware of actual pricing of catches at landing.²⁶

Current regulation of contracts within Indonesia appears to be ineffective as stated earlier due to the confusion created by overlapping government legislation and regulations as well as inaction by port officials and inspectors. Based on available contracts, wages appear to be reported manually on paper forms. Such a system is susceptible to wage theft because workers must rely on continual documentation of every hour worked and guaranteed access to these paper documents. Currently, wages can be sent back to a worker's home country by wiring the money to family through agents like Western Union, who charge a fee and require workers to have cash with them.²⁷ In addition to wiring money home, some workers value having cash to use at ports as well; this cash may be given to them in addition to their salary by boat captains.

The necessity of cash payments and the reality that some workers may not have traditional bank accounts are important details to keep in mind in the development of a digitized contract and payment system.

²⁶ Jessica Sparks, personal communication, November 19, 2020.

4. Current Digital Landscape

There are many examples of companies that are using cell phones and other widely available technologies to address forced labor of migrant workers across many industries. With the rise of internet coverage and smartphone use in key regions such as Southeast Asia,²⁸ apps and digital systems could be a solution for the lack of transparency and enforceability with current contract and payment systems. Table 1 shows a general list of digital platforms and applications that are already in use to address forced labor and workers' rights.

Table 1. Examples of Applications Currently Used to Address Forced Labor

Name	Туре	Purpose
Smart Domestic Workers ²⁹	Mobile smartphone app	 Delivers knowledge to workers (e.g., rights, permits) Provides referrals to agencies
Im@Sea pilot ³⁰	Digital system/ database	 Provides vessel monitoring Provides electronic catch reporting Provides electronic video monitoring Features interviews/surveys with crewmembers
Issara Institute's Inclusive Labour Monitoring System ³¹	Digital system (with social media channels, hotlines, and an Android app)	 Allows communication between workers, employers, and service providers Provides a list of recruiters and agencies Reviews polling of workers' opinions
Thai Union Group PCL's Digital Traceability Pilot Programme ³²	Digital system	 Improves connectivity via satellite Gives suppliers the ability to improve the efficiency of traceability records validated by fishery managers (electronic end- to-end traceability and supply chain management)

²⁸ Supra, note 10.

²⁹ B. Nansomboon, "Key Issues on Digitalization and Promoting Decent Work for Migrant Workers in Thailand and ASEAN" (presentation, Thailand Tripartite Preparatory Meeting for the 11th ASEAN Forum on Migrant Labour, Bangkok, September 14, 2018).

³⁰ Chris Chase, "International Labor Rights Forum Urge Action on Seafood Industry Worker Abuse," SeafoodSource (May 30, 2018), https://www.seafoodsource.com/features/international-labor-rights-forum-urge-action-on-seafood-industry-worker-abuse.

 $^{31 \}quad \hbox{``Inclusive Labour Monitoring,'' Issara Institute, accessed November 6, 2020, https://www.issarainstitute.org/inclusive-labour-monitoring.}$

^{32 &}quot;Thai Union Pilots Digital Traceability Program to Strengthen Sustainability Efforts," Thai Union (March 16, 2017), accessed November 6, 2020, https://www.thaiunion.com/en/newsroom/press-release/463/thai-union-pilots-digital-traceability-program-to-strengthen-sustainability-efforts.

C. Methodology

We used a combination of desktop research and semistructured expert interviews to guide and inform us as we conceptualized a new digital contracting and payments system. Interviewees were selected using a snowball sampling approach and were generally limited to individuals with direct connections to the Stanford Center for Ocean Solutions or Stanford University in general (see Appendix B). Because our client, the International Seafood Sustainability Foundation (ISSF), is in contact with many participating seafood companies, we also had the opportunity to interview seafood distributor executives to gain insight from a commercial standpoint.

This research is inherently worker focused, and the solutions that we put forward here were drafted with worker voices and experiences in mind. However, due to the time constraints of this project, as well as the lack of training on the part of our research team, we were unable to conduct interviews directly with workers. We attempt to incorporate these voices and opinions through academic articles, gray literature reports, and other firsthand accounts. These sources allow us to incorporate a version of voices that, given the time and opportunity, would be a vital part of this research and related efforts going forward.

D. A New Model: The Fisheries Labor Open Accountability Tool (FLOAT)

1. Establishing a Multiuser, App-Based Digital Contracting and Payments Platform

To address the problems noted previously, we propose the development of an app-based platform with a multiuser interface that can streamline the contracting and payments process to increase transparency within the fisheries sector. FLOAT (Fisheries Labor Open Accountability Tool) will create transparency throughout the entire supply chain, from initial recruiter to final consumer, and involves personalized ways for each stakeholder to engage in the process.

For FLOAT to successfully increase transparency and accountability throughout the supply chain, both vertical and horizontal penetration of the supply chain must be achieved. This means app usage must be both regionally diverse (i.e., not limited to one specific country or fishing community) and fully accepted by all actors involved in the supply chain regardless of rank. Workers, captains, recruiters, and everyone involved in the seafood supply chain will have a "profile" on this platform. These profiles will be fairly basic and are primarily focused on identifying, tracking, and storing information for all workers and the boats on which they are working. All payments and contracting will be streamlined into this one digital tool, creating a digital paper trail that can allow end buyers and consumers of seafood to view a detailed log of who was working



on a boat at a certain time, how many hours they worked, how much and when they got paid, and how fairly they were treated.

An additional feature that could be integrated into FLOAT is a quick response (QR) code tracking system. This feature could expand upon the current International Maritime Organization (IMO) number system by labeling each fishing boat with a QR code. This QR code would be directly associated with the boat owner or operating company, and seafood buyers could scan the code when the boat comes into port. The captain would also have their own profile that would be linked to the boat they are in charge of until they either switch boats or step down. A current World Wildlife Fund (WWF) project is working to integrate QR codes and radio-frequency identification (RFID) chips into every step of the tuna supply chain with the end goal of tracking a single fish "from vessel to the supermarket." This exact technology will not be widely available for several years, so here we are focusing on the more feasible prospect of tagging only the boats and the individuals working on those boats, not the individual fish.

1.1. Digital Contracting

Labor contracts are at the core of this platform and represent the primary legal instrument that will bind together the different components of the app. The creation of a digitized paper trail is one of the most feasible and effective ways to ensure fair, enforceable, and accessible labor contracts. FLOAT will not only store, track, and disseminate contract information to the relevant parties, it will also act as a contract-creation tool that will house contract "outlines" that workers, recruiters, captains, and all other stakeholders will be able to access and individualize based on their specific needs and circumstances.

Some example individualizations that could be integrated into the app include:

- Workers could specify their country of origin, their current country of residence, the flag state of the vessel on which they are working, and the country to which they want to be returned in case of a breach of contract.
- Additional stipulations could be added to contracts by either party. These stipulations would need to be agreed upon by both parties before the contract could go into effect.
- Workers could specify the maximum amount of time they are willing to be at sea. This is an easily quantifiable and traceable component of a contract because this information would be recorded at the start of the contract and could be checked against the time when the boat eventually comes into port to sell its catch. This metric would simply be integrated as an additional way to check compliance with contract terms and would not preclude other components of FLOAT that focus on worker conditions and treatment. For workers who prefer to be at sea for longer periods of time due to financial incentives, additional requirements could be integrated into these longer-term contracts to ensure fair conditions during extended periods at sea and guaranteed time on shore after the contract has ended.

^{33 &}quot;New Blockchain Project Has Potential to Revolutionise Seafood Industry," World Wildlife Fund, https://www.wwf.org.nz/what_we_do/marine/blockchain_tuna_project.

To maximize comprehension of contract language by all parties, all contracts signed and created through FLOAT will be comic (or cartoon) contracts. Comic contracts use illustrations and limited words to visually display the main points of an agreement (see Appendix D).³⁴ These contracts can be used to ensure maximum accessibility and comprehension by all workers, regardless of literacy level. This type of contract also acts to empower workers by enabling them to "independently understand the contracts they are expected to sign."³⁵

An innovative feature of these comic contracts is that the illustration itself is the contract, not just a visual representation of a paper contract written in another language.³⁶ This feature removes the potential for inaccurate translations or other malicious actions that could arise in the interpretations process. The comic itself acts as the legal document that is signed by both parties, and in the event of any disputes between parties the comic contract is consulted.³⁷

In the case where a written contract already exists between parties, these written contracts can also be uploaded to the app. These contracts will ideally be phased out over time, as all contracts created through the app must be in comic form. The app could also include an audio dictation function to allow illiterate workers to have the contracts read to them. Individual clauses could also be elucidated through these dictations to reveal the true implications of these contracts for workers in terms of obligations and liability. This approach can increase comprehension to some extent, but the comic contracts are still the preferable form of agreement.

1.2. Default Minimum Requirements for Contracts

The creation of contracts can be homogenized and streamlined by this system through the creation of a set of default minimum requirements that are automatically integrated into every contract that is produced, signed, and implemented through the system. A baseline comic contract could be produced and automatically assigned as the outline for any contracts adapted through the app.

Under the Tuna 2020 Traceability Declaration, signatories pledge to ensure that suppliers at least meet "minimum social standards in management practices." These minimum standards are directly based on recommendations from the Universal Declaration of Human Rights and the ILO's Conventions and Recommendations.³⁸ Here we use the standards set forth in ILO C188, specifically the "responsibilities of fishing vessel owners, skippers and fishers," as the minimum requirements that will automatically be populated into each contract signed via the app.³⁹ This declaration entered into force in November 2017 and has been ratified by 18 countries.⁴⁰ Parties

³⁴ Kate Vitasek, "Comic Contracts a Novel Approach to Contract Clarity and Accessibility," Forbes (February 14, 2017), https://www.forbes.com/sites/katevitasek/2017/02/14/comic-contracts-a-novel-approach-to-contract-clarity-and-accessibility/?sh=3dedea357635.

³⁵ Ibid

³⁶ George Triantis, personal communication, October 6, 2020.

³⁷ Ibid.

³⁸ Global Tuna Alliance, Tuna 2020 Traceability Declaration Social Responsibility Toolkit (August 2020), https://www.globaltunaalliance.com/wp-content/uploads/2020/10/Social-Responsibility-FINAL.pdf.

^{39 &}quot;C188 – Work in Fishing Convention," International Labour Organization (2007), https://www.ilo.org/dyn/normlex/en/f?p=NORMLEX-PUB:12100:0::NO::P12100_ILO_CODE:C188.

^{40 &}quot;Ratifications of C188 - Work in Fishing Convention, 2007 (No. 188)," International Labour Organization, https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INSTRUMENT_ID:312333:NO.

to a contract will have the option to expand on any sections within that contract, but there will be no option to remove any of the baseline labor and payment conditions that are automatically included.

There are a number of provisions that seafood buyers and third-party auditors should ideally consider to be required in all labor contracts signed by workers providing them with seafood products (see Box 1). Below is a preliminary list of substantive provisions that can be automatically integrated into all contracts created within the platform:

- Prohibition of forced labor and child labor
- Wages and benefits
- Working hours
- Health, safety, and accommodations
- Prohibition of discrimination, harassment, and abuse
- Grievance mechanisms
- Transportation (to and from the boat)
- Clearly defined labor expectations⁴¹

These baseline minimum terms can be automatically populated into any contract that is created within FLOAT. Contracts that are created manually and uploaded to the app will be automatically checked for these provisions and flagged if all are not included. All of these provisions must be included, with no option to omit any of the baseline conditions. Generic language for each of these provisions will be automatically integrated into each contract to avoid preclusion. All contracts created between vessel owners and recruiting agents should automatically and irreversibly include language expressly designating recruited workers as third-party beneficiaries to the contract, thus ensuring that the workers will be able to hold the vessel owners liable for any labor abuses committed on their boats. This proposed provision is further discussed in Section 2.2.

We should also consider the case of a country that has not ratified ILO C188, such as Indonesia.⁴² The baseline minimum contract provisions listed above would still be integrated into every contract created through the app, regardless of ratification status or domestic labor laws. If a country has more stringent or comprehensive labor standards than the baseline put forth here, then additional terms can be required for contracts created or executed within that country's borders. This system ensures that all contracts adhere to these baseline conditions while also allowing a higher standard to be applied in countries where domestic law goes further than our minimum standards.

Box 1. Importance for Substantive Provisions Demonstrated by a New Zealand Fishing Industry Example

The need for several of these substantive provisions is demonstrated through one example from the New Zealand fishing industry in 2015. Two Indonesian fishers complained to the New Zealand government that their labor contracts had ended, but they were still owed wages by their employer. Each worker had paid about 20 million rupiah (\$US1,365) to obtain initial employment with the New Zealand company. At the start of their labor contracts, they were compelled to work in the company's processing facility, an expectation that was not included in their labor contracts. Additionally, the hours logged by these two Indonesian workers in the processing facility were logged manually, while the hours worked by New Zealand employees were electronically recorded.⁴³

This example demonstrates the value of the baseline minimum provisions listed above to workers in these types of situations. If these workers had formed a contract within our digitized system, several of the problems they faced could have been avoided. "Clearly defined labor expectations" could have prevented them from being compelled to work a job that was not included in their initial contract, "wages and benefits" could have ensured that they were automatically paid through the app in the full amount they were owed, and "working hours" could have allowed them to digitally log their hours, as was the practice for the other employees in the plant.

These two fishermen also represent a uniquely fortunate subset of exploited workers in that their claims were supported by labor advocates in New Zealand. The Ministry of Business, Innovation and Employment eventually settled their claim and provided a financial settlement for unpaid wages based on their initially agreed upon contracts.⁴⁴ This settlement was very simple in that it involved only one country, New Zealand, and the home country of these migrant workers was barely involved. In other cases, a breach of contract or other labor-related grievance on the high seas can involve the flag country of the boat, the port of departure, or the home countries of the migrant workers, among other factors.⁴⁵

^{42 &}quot;Up-to-Date Conventions and Protocols Not Ratified by Indonesia," International Labour Organization, https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11210:0::NO::P11210_COUNTRY_ID:102938.

⁴³ C. Stringer, "Exploited, Blacklisted, Destitute," SAMUDRA Report, no. 77 (September 2017), https://www.icsf.net/en/samudra/article/EN/77-4307-Exploited,-Blac.html.

⁴⁴ Ibid.

⁴⁵ Supra, note 23.

For this reason, all parties to a contract that is signed or negotiated through the app may choose to use a jurisdiction clause to indicate within the contract the country in which they would like their claims to be settled. This would guarantee that a specific but nonexclusive court has default jurisdiction over any disputes arising from the contract, preventing the frequent problem of no clear jurisdiction existing for disputes arising under many contracts. Further complexities surrounding jurisdiction clauses in contracts are discussed later, in Section D.3.2. A worker may also specify the country to which they would like to be returned should their contract be breached. Both of these locations should be agreed upon by all parties to the contract before labor actually begins. This would also help to avoid conflicts caused by flags of convenience.

In considering this example, it is also important to note the extent to which the forced-labor landscape has changed in New Zealand over the last several years. In response to allegations of forced labor and human trafficking among foreign chartered vessels in New Zealand waters (such as the example cited above), the New Zealand government enacted the Fisheries Amendment Act of 2016. This legislation effectively bans foreign vessels from operating within national waters without first reflagging themselves as New Zealand ships and is intended to identify forced labor and ensure that New Zealand employment laws are enforced uniformly at sea.⁴⁶

Blacklisting is another concept that should be integrated into FLOAT and communicated to all members of a fishing crew before they engage in any fishing activities. When illegal fishing or labor practices are discovered on a boat, authorities sometimes choose to blacklist the vessel itself in perpetuity.⁴⁷ Blacklisting can also be used to ban a vessel from ever fishing lawfully in certain exclusive economic zones (EEZs) after an indiscretion, and this blacklisted status stays with the boat even if it is sold or its crew is completely replaced.⁴⁸ This practice of blacklisting can be harmful to workers, especially those who have paid exorbitant recruitment fees to obtain a job on a fishing boat, only to be forcibly shut out of the industry due to the illegal practices of others on board. The blacklisted status of all fishing boats should be included and readily accessible on the platform, and the implications of signing a contract with a blacklisted vessel need to be adequately communicated to all crew members before any initial contract is signed.

1.3. Mandatory Training Video Integration

A major problem for many workers joining the fishing industry is that they sign contracts without complete knowledge of the type of work they're getting into, how they should expect to be treated, or what will be expected of them once they're out at sea. 49 Mandatory training videos can be integrated into the contracting portion of the platform to ensure that all workers have adequate information to fully consent to the terms of a contract before entering into a labor agreement.

⁴⁶ Lydia C. L. Teh, et al., "The Role of Human Rights in Implementing Socially Responsible Seafood," PLoS ONE 14, no. 1 (2019), https://doi.org/10.1371/journal.pone.0210241.

⁴⁷ Supra, note 43.

⁴⁸ R. Hannesson, "Rights-Based Fishing on the High Seas: Is It Possible?," Marine Policy 35, no. 5 (2001), 667-674.

⁴⁹ Supra, note 18.

For example, Lovering Foods, a large seafood distributor based in the UK, currently provides an in-house "Modern Slavery Awareness Training" to all head office staff on an annual basis. ⁵⁰ Since ILO C188 stipulates that captains must facilitate "on-board occupational safety and health awareness training," this type of mandatory training represents a feasible and universally applicable way to achieve this training requirement. By taking a more comprehensive approach to what a training video should entail, we can incorporate expectations for both workers and higher-ups to ensure higher levels of understanding of proper worker treatment and labor abuse, all while increasing compliance with C188 requirements. Video training should be completed during the initial recruitment process, before workers ever leave their home villages. This helps to ensure that workers are aware of what they're getting into before they deem it to be "too late" to back out. ⁵¹

1.4. Stakeholder Engagement with the Digital Platform

There are many stakeholders involved throughout the complex fisheries supply chain, and each party will have a unique and personalized way in which they will engage with the platform (see Figure 3). All actors will be accountable for promoting fair labor practices through their personal involvement with FLOAT. However, vessel owners, seafood buyers, and recruiting agents will be the most vital and influential drivers for advancing human rights and the fair treatment of workers at sea.

Figure 3. Stakeholder Engagement in FLOAT



Fishing Worker

- Sign/store contracts
- · Log working hours
- View mandatory training videos
- Write anonymized reviews
- Store personal information
- Communicate with other fishing workers
- · Receive payments



Sending/Receiving Agent

- Create and sign contracts
- Engage with initial mandatory training video
- * Sending/receiving agent **not** included in application payment system.



Vessel Captain

- Create and sign contracts with workers aboard (negotiate contract before going out to sea)
- Report the selling of fish to the app for financial transparency in crew payments



Vessel Owner

- Access information of workers aboard all of their ships
- Log individual transferable quotas (ITQs), fishing permits, and other documents
- Establish QR codes for all fishing vessels in use



Seafood Buyer/Distributor

- Scan QR codes on ships
- Inspect anonymous review log to ensure proper working conditions
- Submit payments directly to app to pay fishing crew aboard ships and/or recruiters

Fishers/workers are the key piece and the primary intended beneficiary of this digital platform, so they are tied to the majority of functions that the app provides. Fishers will be able to sign and store within the app any contracts to which they are a party. The platform will automatically be able to check these contracts against each other to remove any inconsistencies, avoiding potential problems that can arise from the complex chain of contracts that exist in the current paper contracting system. Fishers can also log hours worked, describe their labor conditions, and communicate with other fishers or humanitarian organizations should any serious problems arise. Fishers would additionally be able to write anonymous "reviews" of captains or other higher-ups, which will be described in more detail later.

An additional benefit of a unified digital system is the ability for fishers to store within the app personal information such as visas, passports, and other identification. Assuming that the app could eventually become widespread enough to be trusted by port authorities as a valid source of identification, this would remove the problems that can arise from the withholding of personal identification by higher-ups on the crew. If properly implemented, this could reduce the threat of debt bondage, wage withholding, and other practices that prevent fishers from escaping abusive situations. Jurisdictional, country-specific information will also be stored on the platform, and all parties with whom workers sign contracts will need to specify at the outset the location of contractual resolution.

A final fisher-centric component of the app is the payments system. When a boat sells its catch to a distributor or an individual buyer, that buyer could submit their payment directly through the app. The app presumably contains an accurate list of all workers on the boat, the hours they worked, how much fish was caught, and any prices that the boat owner/captain incurred during the trip. This means that a standardized formula can be written into the contract at the beginning of any fishing expedition. This formula would need to be agreed upon by buyers, workers, and captains before disembarkment.

Recruiting agents (both sending and receiving) will mostly engage with the app through the creation and signing of contracts. Agents will be responsible for registering with the app any workers that they hire and ensuring that details about the initial hiring process are included in the worker's profile. Recruiters should also be involved in the initial mandatory training video that all workers will be required to watch before signing any contracts. If recruiters are required to create and sign contracts through the app, this training video would ideally be viewed by all parties to a contract. Once a worker is hired by a specific boat, access to the worker's profile, including all previously signed contracts, is transferred to the captain or boat owner.

An additional benefit of the app is its potential to remove recruiters from the payment process. In the current system, wages are frequently delayed or withheld by recruiters, adding layers of complexity to this system and creating uncertainty for workers as to when or if they will get paid. By streamlining all payments within this app, wages could be sent directly from buyers to fishers, avoiding harmful delay times and removing the possibility for long-term debt bondage or other labor abuses.

Captains should be required to use the app only during two vital points in the supply chain: the hiring of workers onto their crew and the selling of fish catch to distributors or other buyers. Each worker working on a boat will have a string of contracts attached to their profile in the app, and each worker will in turn be contractually tied to the captain's profile (via the app) for the entire time of their employment on that boat. Contracts that were previously negotiated with recruiting agents are available through the app and cannot be altered by the captain.

The captain can, however, negotiate and add new contracts into the app with the consent of the workers before going out to sea. It is especially important that contracts be negotiated before going out to sea for an extended period of time. Often only captains have access to the internet during long voyages, so by banning any post-departure contract adjustments we can reduce the possibility of non consensual contract alterations. The location and time at which a contract is altered can be tracked via the app, thus making this requirement fairly straightforward to implement.

Vessel owners can access information on all workers employed on their boats at any given time. To incorporate IUU, the platform can also allow boat owners to log any individual transferable quotas (ITQs), fishing permits, vessel day scheme (VDS) permits, and other documents related to the total allowable catch for a particular boat. As mentioned earlier, individual QR codes will also be attached to each boat. This inclusion will ensure that all indiscretions associated with one boat are logged within the system and will alert seafood buyers of any boats with a history of abuse or illegal activities.

Seafood buyers will be able to scan the QR codes of each boat coming into port as well as the captain's individual QR code. Buyers can then use the app to check a number of metrics to ensure that the boat has not engaged in any illegal activity since it was last at port. A quick scan of the anonymous review log can reveal any reported cases of abuse (reports can be entered into the app while at sea and posted as soon as service is regained at port). The app will also be able to tag the location of all workers on board to ensure that the workers registered on the app as working on the boat are actually there.

As mentioned previously, all payments can be submitted by the buyer directly to the app or potentially through a partnership with an existing banking app used by the fishing communities. The app would then divide up the money between workers, boat owners, and captains according to a contractually agreed upon formula. This more automated and streamlined payment system would help to prevent debt bondage, withholding of funds, and other monetary abuses that are common in the fishing industry.

There are certain cases where this system would need to be modified slightly, such as when a worker has signed a long-term labor contract with a sending agent and thus needs the agent to be involved in the payment process. In this case, payments could still be done through the app and would instead go from buyer to sending agent and then eventually to the worker. This creates a more convoluted payment stream but can allow workers who wish to maintain long-term relationships with their sending agents (i.e., to ensure future assignments on other fishing boats) an alternate way to conduct payments through the app while still ensuring transparency and accountability throughout the entire payment process.

Consumers would initially play a smaller role in this digitized system. However, this role could be scaled up depending on the visibility of labor issues in the future and the extent to which consumer choice plays a role in the actions of large seafood companies. Consumers would also be able to download and create a profile on the app. Assuming widespread participation in the platform by large seafood distributors, consumers would be able to verify that the fish they're consuming were caught on boats that met the minimum contract requirements, labor standards, and legal fishing requirements.

For a hypothetical case of worker interaction with the FLOAT application, see Box 2.

1.5. Anonymized Communication and Rating System

Another component of the platform is an anonymized worker communication and rating system that is integrated into the program. This communication system will be modeled after Yelp and other crowd-sourced review systems, with the specification that worker reviews are viewable only by certain parties. For instance, a boat captain wouldn't be able to see the reviews posted by workers on their ship. This safeguard would need to be built into the app to avoid potential retribution on the part of a boat captain or an owner who sees negative reviews from their workers.

To ensure that worker reviews are seen and reviewed by the proper entities, reviews will be visible to fellow workers (so that they know what boats, captains, or companies to avoid), government agencies (who would be able to fine or otherwise punish abusive actions), buyers (who can review comments from workers on fishing boats and fleets with whom they are doing business), and potentially final customers (who can use the review system to filter out worker reviews for companies from which they regularly purchase seafood).

Workers will have the option to flag their profiles and reviews with ship positions, yet in these cases, anyone with a rank higher than worker (e.g., recruiter, captain, boat owner) would not be allowed to access the reviews. Under this system of locational anonymity, prospective workers could see ratings for boat personnel as well. To address the low levels of literacy that are common to some workers on fishing boats, reviews can be visuals-based, with images of boat personnel (captains, owners, recruiters) being used in the review process. Because the app already requires that each user have their own profile with information about their rank or position, this should be feasible. The ranking system could be further simplified by giving workers the option to rate the personnel using a simple:) (satisfactory),: | (neutral), or: ((unsatisfactory) system based on the treatment and labor conditions to which they have been subjected.

A potential problem that arises with this system is that complaints would be registered only once the boat is close enough to port to access Wi-Fi or a cellular signal. This means that there would be no way of ensuring real-time reporting of abuses at sea, and worker voices would be integrated into the platform days, weeks, or even months after the abuses have occurred. While this doesn't provide immediate relief to the workers being subjected to the abuse, it does at least provide information to seafood buyers and governments who can take punitive action against the abusers. It also warns potential future workers about the conditions that can be expected aboard that particular fishing boat.

If a number of negative reviews are logged into the system for a specific person, boat, or company, that entity could be automatically labeled with a red flag that would be evident to seafood buyers, ports, or any other bodies attempting to do business with this flagged entity. A number of questions arise when we begin to consider the actions that would be most desirable for the workers in this situation of persistent reported abuse. Legal remedies such as contract termination may not be ideal for workers who have a long-term contract or who wish to receive future employment through the boat owner or a recruiter.⁵²

There is also a question of which party involved in a conflict has the most responsibility to act. When illegal activities are reported through the platform, the responsibility to act on these reports eventually falls on the national governments involved in the dispute. However, the specific country (or countries) that decides to intervene depends on a variety of factors, including the scope of the indiscretion and the physical location of the boat and crew.⁵³ Countries with a reason to intervene include flag, port, coastal, labor supplier, or market states, with the possibility for none of these to feel compelled to act depending on the situation.⁵⁴

In September of 2020, a group of twenty-two maritime unions called on port states to "assist the flag states by enforcing the provisions of the Maritime Labour Convention" by detaining ships that are denying their workers their fundamental human rights.⁵⁵ This effort focused specifically on the threat that COVID-19 poses to crew changes and the enforcement of limits to time spent at sea. However, this example highlights the complex web of actors involved in responding to human rights abuses at sea and the need to create a normalized reporting system with predetermined paths to redress.

⁵² Supra, note 18.

^{53 &}quot;Unions Call on Port States to Detain Ships to Protect Seafarers," The Maritime Executive (September 24, 2020), https://www.maritime-executive.com/index.php/article/unions-call-on-port-states-to-detain-ships-to-protect-seafarers.

⁵⁴ Food and Agriculture Organization of the United Nations, Joining Forces to Shape the Fisheries Sector of Tomorrow (August 28, 2020), http://www.fao.org/port-state-measures/resources/detail/en/c/1305748.

⁵⁵ Supra, note 53.

Box 2. Hypothetical Scenario of Worker Interaction with FLOAT (Contract-Focused)

A worker from Indonesia, Nelayan, meets a sending agent in his hometown. The recruiter offers Nelayan a job on a Taiwanese fishing boat and verbally explains the length, wages, and expectations of the job. Nelayan expresses his interest, and the recruiter then helps him to create a profile on FLOAT (preferably on the worker's own smartphone). Once his basic profile is created, the recruiter sends Nelayan the labor contract (in comic form) through the app for him to sign. This is the first contract that Nelayan will be signing, so he is first prompted to watch a training video through the app that covers what he should expect on the fishing boat and information about his rights, paths to redress, wage expectations and app-based payments, and the contracting process.

The comic contract is very simple and can be dictated in case the visuals are unclear. This initial iteration of the contract is complete and enforceable and is subject to oversight by the Indonesian government and all relevant Indonesian law. After confirming that he has watched the video and consents to the contract, Nelayan is able to review and sign the contract with the recruiting agent. He then travels to the port (still in Indonesia) where the Taiwanese vessel is docked per the terms laid out in his recently signed contract.

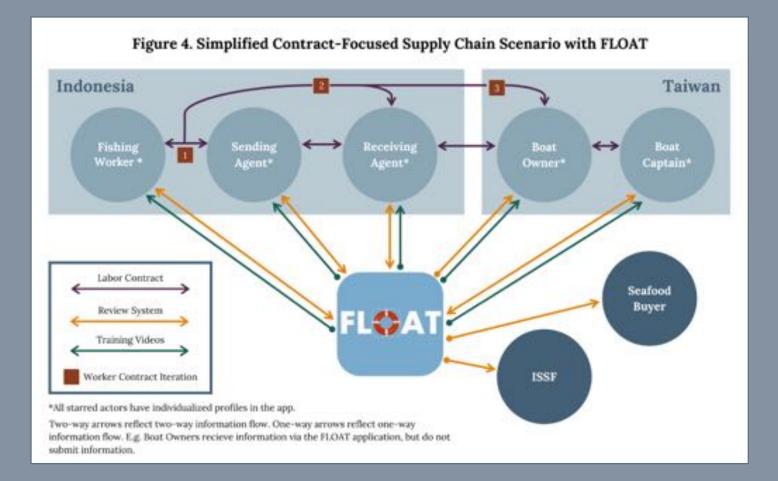
Once he arrives at the port, Nelayan is transferred from the sending agent to a receiving agent. Nelayan's original contract with the sending agent is iterated to include the receiving agent as a party, with no other substantive changes made to the contract itself. The initial contract is thus preserved, preventing any contract tampering and limiting opportunities for miscommunication or malpractice.

Nelayan is then assigned to a specific boat and has his contract iterated for a third time to include the boat captain. This step in the process involves an additional part of the contract between the recruiter and boat owner/captain, but Nelayan's original contract terms are tied to this new contract via the app. Nelayan sets out to sea with his new multinational crew and Taiwanese captain for a six-month contract.

A month into his labor contract, Nelayan observes a set of labor abuses occurring on the boat. The vessel goes into port a week later to land a catch, and Nelayan uses the anonymous review system to report these abuses on the app. Multiple other workers also report these same abuses through FLOAT.

ISSF is automatically notified of this set of negative reviews and labels the vessel with a red flag. A few weeks later, the vessel goes into port again to land a catch. Seafood buyers scan the boat's QR code and are immediately notified of the vessel's red flag status. The buyers choose not to buy from the boat due to its documented human rights abuses. The buyers could also refuse to buy from the vessel because the captain cannot show that all workers on board have signed contracts through FLOAT and or because the workers are not all enrolled in the automatic payments system through the app.

The vessel owner is also notified of these abuses through FLOAT. He then fires the boat captain for his abusive labor practices and installs a new captain on his vessel. The vessel owner then logs this new captain's information into FLOAT, and his boat is able to operate again once the new information is verified by ISSF and the red flag is cleared. Nelayan and the other workers keep their initial contracts with the sending and recruiting agents, and only the third contract between vessel owner and captain must be re-created to reflect the new captain. Figure 4 serves as a visual representation of the different ways stakeholders can engage with one another through the FLOAT application.



2. Multilateralism and the New Model

A new model for the fishing industry in the Pacific must take into account the complexities of how workers are recruited and retained. This project focuses heavily on contracts because they are already being used (to some extent) to bring workers aboard fishing boats. Through the implementation of a digitized system, the contracts that currently bind these workers may become easier to access and analyze, more linguistically standardized, and increasingly traceable.

2.1. Contracts in the Current Model

The current model of getting workers from their home villages onto fishing boats entails multiple layers of negotiations and bargains. While systems vary from country to country, the most common and critical of these contractual relationships were listed in Section B.2.

The longstanding contractual doctrine of privity states that a contract's terms can only bind parties directly involved in the creation of the contract; a contract cannot impose binding obligations on third parties. Some exceptions to privity have developed within the common law and even statutory frameworks of countries such as the United States and Canada,⁵⁶ but none are perfectly suited to circumventing privity directly within contracts like those created between workers and recruiting agents. The workers therefore have no direct means of contracting or negotiating for basic workplace protections under the boat captains' watch. They are at the mercy of whatever labor-standards provisions exist in their own recruitment contracts, combined with those in the contracts between the boat owners and the boat captains.

To complicate matters, the trade of workers between boats while out in open water is also not uncommon,⁵⁷ and it remains unclear whether the workers' paper contracts with their sending agents are sent with them to the new boat. Together, these factors create a system in which workers have little bargaining power, boat captains face little accountability for breaches of contract, and exploitation may run rampant across the Pacific.

See, e.g., George Triantis, personal communication, October 16, 2020 (noting that some forms of law have developed specifically to avoid the lack of direct privity between two contracting parties, such as that of manufacturers' liability to consumers in tort law, which allows a consumer to sue a manufacturer directly for a defective product, rather than suing the store from which the product was purchased); "Privity of Contract and Third Party Rights - Report 2008," Uniform Law Conference of Canada (Conférence pour l'Harmonisation des Lois au Canada), accessed November 17, 2020, https://www.ulcc.ca/en/annual-meetings/235-2008-quebec-city-qc/civil-section-documents/450-privity-of-contract-and-third-party-rights-working-group-report-2008?start=2 (noting that Canadian common law creates a "principled exception" to privity when express intentions to benefit a third party exist, such as in some insurance contracts that allow enforcement by third-party beneficiaries, and that equity concerns create exceptions for implicit intentions to benefit some third parties because of their instrumentality to or representativeness of a contracting party); David M. Summers, Third Party Beneficiaries and the Restatement (Second) of Contracts, 67 Cornell L. Rev. 880 (1982) (discussing the American Law Institute's adoption of an "intent to benefit" standard within the Restatement [Second] of Contracts to provide more exceptions to privity in third-party beneficiary scenarios).

⁵⁷ Ian Urbina, "'Sea Slaves': The Human Misery That Feeds Pets and Livestock," The New York Times (July 27, 2015), https://www.nytimes.com/2015/07/27/world/outlaw-ocean-thailand-fishing-sea-slaves-pets.html.

2.2. Applying the Proposed Model

2.2.1. Standardized Terms and Translations

A major potential benefit of the proposed model is that of standardizing contractual terms across workers' contracts within the digitized system. This will create an immutable baseline expectation of worker treatment and associated rights for all contracting parties, and it will allow for monitoring parties to work out in advance any issues concerning translation.

Contracts written with multiple translations for our modern global market often include clauses specifying which linguistic iteration of the contract will be considered the legally "binding" version. Nevertheless, without comprehensive, accurate, and culturally nuanced translations available for all parties' reference, such contracts may be held void by courts that do not find that a contract was properly formed between the parties. Established common-law contract doctrine states that a "meeting of the minds," or mutual agreement on the terms and meaning of a contract, must occur between the contract's parties before it can be considered validly formed. Therefore, if one party is unable to accurately understand what the other party believes it is owed through the terms of the contract, then a court may consider the contract nonexistent.

The proposed model does not only create an opportunity for parties to weigh in on the comprehensibility and correctness of given translations of a contract: the proposed "comic contract" model may negate many concerns over translation discrepancies, which may ultimately lessen the risk that a court might seize on an inaccurate translation of a term or phrase and use it to void an entire provision or contract.

Should written contracts remain the preferred mode of contracting, however, a database of digitized contracts would at least permit some popular consensus to be developed around translations. By comparing the language used by parallel contracts in translated form, experts could track and weigh in on the accuracy of certain translated terms. The envisioned contracting app could allow workers to tailor their own contracts around a set of core protections, by adding additional terms from a set of extra provisions. Experts could help translate such core and optional contract provisions with the necessary nuance before adding the translations into the app as option terms, and they could track the usage and interpretations of such terms to ensure that the translations do not need modification.⁶⁰

⁵⁸ Michelle J. Rozovics, "Drafting Multiple-Language Contracts," GPSolo Magazine (April 3, 2019), https://www.americanbar.org/groups/gpsolo/publications/qp_solo/2011/april_may/drafting_multiple-languagecontractswhenyouonlyspeakenglish.

⁵⁹ See Restatement (Second) of Contracts § 17 & cmt. c (Am. Law Inst. 1981) (describing the common-law standards as broadly understood in U.S. law); id. § 20 ("There is no manifestation of mutual assent to an exchange if the parties attach materially different meanings to their manifestations"). This standard has been challenged in the United States recent years, however. See, e.g., Lucy v. Zehmer, 84 S.E.2d 516 (Va. 1954) (finding that a contract written on a napkin that sold 471.6 acres of land for USD 50,000 was valid, even though one party later claimed to have been joking, because the other party had a "reasonable belief" that the first party was serious).

Some legitimate concerns may exist that the app software translators would be put at risk of suit, given the established principle that contractual ambiguities must be construed against the drafter (here, the translator). Such concerns would be alleviated by the cartoon contract model's minimized reliance on written words, and any in-depth analysis of potential app translator liability should only be taken into account if future iterations of this project decide to revert back to a word-based contract model.

In an ideal world, the FLOAT app would be the mechanism through which all parties engaged in the fishing industry would contract for the provision of fishing labor. If this model were realized, then the app could be tailored so that all contracts between vessel owners and recruiting agents automatically and irreversibly would contain an express third-party beneficiary clause that would allow fishing workers—the third-party beneficiaries of the vessel owner-recruiting agent contract for provision of labor—to sue to enforce the contract. This would counter current concerns surrounding the lack of privity between fishing workers and vessel owners, creating a direct contractual mechanism through which the workers could sue the vessel owners for labor abuses. Significant challenges exist in the fact that vessel owners and recruiting agents may resist using the FLOAT app in the first place, as it will inhibit their ability to engage in illegal recruiting practices. However, if ISSF and other industry leaders leverage their buying power to affect widespread adoption of the app, such mandatory contractual clauses would create enough contractual liability to incentivize vessel owners to ensure that payments are made as agreed and that boat captains are treating workers fairly. Each of the provision of the app and that boat captains are treating workers fairly.

2.2.2. Digitized Payments and Multiparty Contracts

A digitized payment system could potentially be realized through a "smart contract" system that would transfer money directly from the sending agents to their recruited workers. Smart contracts are lauded precisely because they are automatic and self-executing and do not require any central authority or middleman to facilitate the transaction. Once uploaded to the digitized system, such contracts' terms are usually immutable; modification essentially requires "killing" the old contract and replacing it with a new one. A multilateral smart-contracts system could essentially anticipate all of the required transactions between multiple parties using an algorithm, highlight where failed or missing transactions in the chain occurred, and assign liability to parties accordingly. This automation and immutability obviously would be of great benefit to a workforce like the fishing workers, who would no longer need to fear having their wages arbitrarily withheld or shortchanged, nor that the terms of their contracts would be altered after their signing.

2.3. Beyond Privity: The Practical Applicability of Contract Law to the Fishing Industry

A final consideration is that, while contracts form the basis of this inquiry, contract law may be ill suited to addressing the specific problems faced by these fishing workers. Contract law is, after all, contingent on the valid formation of a contract, and if no contract currently exists in paper or in digital form (which may be the case for up to half of current fishing workers)⁶⁵ or no valid

⁶¹ Alexis Hailpern and Danielle Waltz, "Avoid Lack of Privity: Express Third-Party Beneficiary Clauses," Modern Contractor Solutions (February 2020): 42-3, https://mcsmag.com/avoid-lack-of-privity.

⁶² Even if no similar third-party beneficiary clause exists in the contracts between the vessel owners and the boat captains, the vessel owners could still be found legally liable for the misbehavior of the boat captains under the tort doctrine of respondeat superior, or employers' vicarious liability for the wrongdoing of their employees in the course of their employment.

⁶³ Jeffrey D. Neuburger, et al., "Smart Contracts: Best Practices," Practical Law (2019), https://www.blockchainandthelaw.com/files/2019/11/ Smart-Contracts-Best-Practices-w-022-2968.pdf.

⁶⁴ Lai Xu, "A Multi-Party Contract Model," ACM SIGecom Exchanges 5, no. 1 (2004), accessed November 8, 2020, https://www.sigecom.org/exchanges/volume_5/5.1-Xu.pdf.

⁶⁵ Supra, note 18.

contract was ever formed because of a lack of true understanding on the part of one party, then enforcement of the contract will be impossible. Finding that contracts are void, however, is not actually a very desirable solution for many workers, who are still in dire enough financial straits that they would prefer to keep their jobs and receive their wages owed, rather than have their contracts canceled outright. ⁶⁶ And, because workers are not in direct privity with the boat owners or boat captains who are most likely to abuse them, they have little control over whether the complex webs of contracts governing their working ecosystem create any contractual obligations for their rights to be upheld in the first place.

A true solution to the problem of unenforced or nonexistent fishing workers' contracts likely lies not in the realm of contract law, but in other fields of law.⁶⁷ Remedies that will ensure fair payment for workers likely lie not in requesting that courts uphold the terms of their contracts, but rather in domestic and international labor law frameworks (civil or administrative law) or in anti-trafficking human rights law (civil or criminal law). Contracts have an important expressive and educational value for workers who may feel empowered by their existence,⁶⁸ and standardized language and express third-party beneficiary clauses could go a long way toward creating contracts ideally suited for justifying workers' rights. But in the unmonitored world of the outlaw ocean, the enforcement of fishing workers' rights will rely on an overlap of the most effective forms of law available.

3. Enforceability of the New Model

As noted in the preceding paragraphs, enforcement of fishing workers' contracts will rely on a network of legal interventions and frameworks that stretches far beyond mere contractual remedies. Such enforcement will require some combination of domestic, regional, and international cooperation to ensure that fishing workers may seek redress for any breaches of contract or human abuses suffered.

3.1. Current Jurisdictional Concerns

One of the most pressing obstacles to a strong regime for combating labor abuses in the fishing industry is the lack of clear jurisdiction over fishing boats in open waters. The following section gives a general overview on the issue of jurisdiction (see Box 3).

A true solution to the problem of unenforced or non-existent fishing workers' contracts likely lies not in the realm of contract law, but in other fields of law.



⁶⁶ Jessica Sparks, personal communication, October 23, 2020.

⁶⁷ George Triantis, personal communication, October 16, 2020.

⁶⁸ Supra, note 18.

Box 3. Primer on Legal Jurisdiction

Jurisdiction exists in two general types: subject-matter jurisdiction and personal jurisdiction.

Subject-matter jurisdiction dictates what types of cases a given court or tribunal can hear. For example, a tax court can hear only tax-related cases and cannot hear a criminal case; meanwhile, the International Criminal Court only hears cases concerning international crimes (such as torture, crimes against humanity, and genocide) and could not hear a domestic tort case or even a domestic criminal case (such as murder or assault). It therefore matters whether instances of forced labor are brought before any given court as private breach-of-contract cases, as trafficking suits—either criminal (prosecuted by the state under criminal codes) or civil (initiated by the wronged fishing workers themselves)—or as labor disputes (adjudicated under local or international labor laws).

Personal jurisdiction, by contrast, dictates whether a given party can be brought before a given court. Typically, unless both parties have explicitly consented to have their cases heard by a given court, the court can hear cases only when both parties have strong enough connections to the legally defined region in which the court sits. Courts almost always can hear cases surrounding disputes that arose within their jurisdiction; for example, if a labor dispute arises in a workplace located in San Francisco, then the state or federal courts located in and around San Francisco will almost always be allowed to hear a related lawsuit. For corporations, such connections may be determined based on where corporate headquarters are located, where the corporation does most of its business, or where the corporation has been formally incorporated.

International criminal law breaks personal jurisdiction into a few more categories:

Territorial jurisdiction aligns with the previous principle discussed. A state or district can prosecute almost all crimes committed within its geographic or legally defined territory.

Nationality jurisdiction is concerned with the citizenship of the parties involved in a dispute. Active nationality jurisdiction allows states to prosecute their own citizens when they commit illegal acts, even if the acts occurred outside of the state's territorial boundaries; passive nationality jurisdiction allows states to prosecute crimes committed against their citizens, even if the acts occurred outside of the state's territorial boundaries.

Protective ("effects") jurisdiction allows a state to prosecute actors whose crimes have a disproportionate impact on the well-being of the state, even if the actor is acting outside of the state's territorial boundaries. For example, the United States could prosecute financial crimes committed by Canadians located across the border in Canada if the financial crimes disproportionately impacted the United States.

Universal jurisdiction applies to a subset of crimes that the international community has decided are so terrible that virtually any state should have the right to prosecute them, even if the prosecuting state has no connection to the crime whatsoever. These crimes, called *erga omnes* (Latin for "against everyone"), include genocide, crimes against humanity, war crimes, torture, piracy—and, relevantly, slavery and human trafficking.⁶⁹

Jurisdiction is particularly difficult to pin down in the fishing industry, when so many factors are at play. The default within the fishing industry is that of flag-state jurisdiction, meaning that the crew of a ship is subject to the laws and courts of the state whose flag the ship flies.⁷⁰ This default is weakened, however, by the use of "flags of convenience"—a ship may register to fly the flag of a state other than the one from which its owner hails, even if no one associated with the ship has any other connection to the state whose flag is flown.⁷¹

Additional factors for analysis include the fishing workers' countries of origin (passive nationality jurisdiction), the boat owners' countries of origin (active nationality jurisdiction), the countries of origin of the recruiting agents (active nationality jurisdiction), and the port states from which the fishing boats depart and land (territorial jurisdiction). It seems unlikely that, at least within the current world of commercial fishing, illegal labor practices or trafficking would create any impact on the well-being of purchasing states that would grant them protective jurisdiction over related disputes. And compounding all of these difficulties is the fact that jurisdiction is even less clear over actions taken on the open seas, where territorial jurisdiction does not even exist.

This lack of clear jurisdiction makes it all too easy for savvier legal players—namely, vessel owners—to game the system. Already, vessel owners flout jurisdiction by using flags of convenience and shell companies to obfuscate ownership, blur jurisdictional lines, and ultimately evade accountability for wrongdoing.⁷² And an all-too-real danger exists that, if haled into court by a worker seeking redress, vessel owners will seek to evade accountability yet again by having the case dismissed on jurisdictional grounds. The following section aims to address some of these concerns.

3.2. Jurisdiction Clauses in FLOAT Contracts

The number of multinational players party to any one worker's recruitment into the fishing industry may make it difficult for any one court to claim jurisdiction over a dispute arising from a FLOAT contract. For this reason, it seems logical to include a *jurisdiction clause* in any FLOAT contract created between a worker and a recruiting agent at the initial stage of the process. While this would give a specified court authority over a case—and prevent it from being easily dismissed from that court—the disparity in legal knowledge between repeat players such as recruiting agents and vessel owners, and one-time players such as recruited workers, could allow

⁷⁰ See "Jurisdiction Over Vessels," NOAA Office of General Counsel, last modified September 20, 2019, https://www.gc.noaa.gov/gcil_jurisdiction.html#:~:text=Flag%20State%20Jurisdiction&text=This%20exercise%20of%20jurisdiction%20is,outside%20of%20the%20State's%20territory ("A State may exercise jurisdiction over a vessel that is registered with the State and flying its flag."); United Nations Convention on the Law of the Sea (UNCLOS), Article 91(1) ("Ships have the nationality of the State whose flag they are entitled to fly."); id. Article 92(1) (clarifying that flag-state jurisdiction is absolute unless waived elsewhere by UNCLOS or by a separate international treaty).

⁷¹ International organizations such as the Organisation for Economic Co-operation and Development (OECD) have been aware for years of problems with flag ship transparency and recommend that states enhance measures such as upfront disclosure of beneficial ownership, corporate vehicle registration, and restriction of port access to flags and ships whose ownership and control is known to mitigate such problems. See generally Organisation for Economic Co-operation and Development, Maritime Security - Ownership and Control of Ships: Options to Improve Transparency (DSTI/DOT/MTC[2003]61/REV1, December 17, 2003), http://www.oecd.org/officialdocuments/publicdis-playdocumentpdf/?cote=DSTI/DOT/MTC(2003)61/REV1&docLanguage=En.

⁷² Supra, note 19, 25-29.

the former to grossly abuse jurisdiction clauses by "forum shopping" for their own benefit.⁷³ Even if both parties had to agree to a venue before signing the contract, a recruiting agent could easily talk a less-informed worker into agreeing to adjudicate any and all disputes arising from the contract in a venue with weak domestic labor laws or few human rights protections.

The design of the FLOAT app could potentially help to stave off such concerns. Once the worker's draft contract is connected to the broader network of contracts governing their future employment, the app could cross-reference the jurisdictions associated with the other contracts that will be connected with the worker's, once finalized. This would include the home state of the vessel owner and the flag state associated with the boat (assuming no flags of convenience are used), as well as the worker's home state and possibly the home state of the boat captain contracted to helm the boat in question. The worker could be required to watch a short and simple video on the current pros and cons of bringing suit in any of these jurisdiction options, to ensure a baseline of legal understanding, before being permitted to add a jurisdiction clause for a selected forum to their comic contract. Such videos could explain basic issues such as whether a worker would be paid the money owed at the end of a lawsuit for forced labor (e.g., mandatory restitution owed by traffickers to their victims, as exists under 18 U.S.C. § 1593 within US domestic law), or whether they would be allowed to work while waiting for the resolution of their court case in any given country, under that country's immigration laws.

To avoid concerns about recruiting agents forcing workers to specify less-favorable jurisdictions, the FLOAT app should allow only nonexclusive jurisdiction clauses to be added to workers' comic contracts. Exclusive jurisdiction clauses are those that demand that any and all disputes arising from a contract be adjudicated in the selected forum, and they are more likely to be abused by recruiting agents seeking to restrict workers' access to other forums. By contrast, nonexclusive jurisdiction clauses specify a default court in which cases may be heard but do not demand that litigation be brought in that court if a different court is more appropriate. This would leave the full world of jurisdictional options listed in Section D.3.1 open to workers for dispute resolution, while providing a selected court as a safeguard that would have to hear any dispute if another venue was not selected instead. Nonexclusive jurisdiction clauses would also prevent a worker's jurisdictional options from being too narrowly foreclosed if their recruiting agent has not assigned them to a specific crew at the time that their contract is signed. Even if their available default options are limited, they would still be able to access courts associated with their assigned vessel owner or boat captain through active nationality jurisdiction.

FLOAT might also consider including an optional *governing law clause* function that would allow the parties to specify their choice of law for any contract-related disputes. Most courts assume that the court's domestic law should govern dispute resolution brought before them, unless a contract explicitly specifies otherwise or a party to the suit can make a compelling enough argument for another jurisdiction's laws to be applied. It seems unlikely that many workers would

It is worth noting that plaintiffs, too, can take advantage of forum shopping to have their cases heard in the most favorable venues for them. At present, the United States is a very popular venue for many trafficking suits, given the existence of strong, independent courts and a robust anti-trafficking statute that even includes a provision for mandatory restitution for victorious victims (18 U.S.C. § 1593). A number of cases were filed in 2015 and 2016 against US-based companies with dirty supply chains (such as Nestlé, Walmart, and Costco) by survivors of trafficking within the international fishing industry; most of the cases arising from incidents abroad involving purely international actors were dismissed, but one case involving the Hawaiian fishing industry, Sorihin v. Nguyen, No. 4:16-cv-05422 (N.D. Cal. 2018), settled in a US federal court in January 2018. Another relevant case, Nestlé USA, Inc. v. Doe, No. 19-416, is pending before the US Supreme Court as of November 2020; its resolution will determine the aiding-and-abetting liability under the US Alien Tort Statute of US corporations whose actions support forced-labor practices abroad, which could dramatically impact the ability of trafficking survivors to bring suit in the United States moving forward.

opt to have their case heard in one country and opt to have a different country's laws applied to the case. Nevertheless, the option might still be made available, with a default to the governing law of the selected jurisdiction.

3.3. Types of Legal Enforcement Mechanisms

The previous section on jurisdiction clauses discusses only adjudication through jurisdiction clauses in domestic courts. However, domestic law is only the first of three tiers of legal regimes from which fishing workers may seek legal redress for contractual, labor, and human rights abuses:

- **Domestic law:** The laws of individual states may create avenues for redress. These may be in the form of courts that can adjudicate criminal or civil cases and administrative or labor disputes, or possibly general funds from which remuneration could be paid to "make the workers whole." While not directly aimed at compensating trafficking survivors, domestic governments can also punish traffickers and their collaborators criminally or civilly through domestic legislation or deter illegal forced-labor practices through actions such as trade sanctions. A distinct benefit of domestic adjudication is that the state will be able to enforce the rulings of its courts much more directly and efficiently than a regional body or an international organization would, on the basis of preexisting statutes.
- Regional bodies: While not ideally suited to enforce fair labor practices, the Association of Southeast Asian Nations (ASEAN) could play a role in helping to shape regional norms. ASEAN has created a Convention Against Trafficking in Persons, Especially Women and Children (ACTIP),⁷⁶ demonstrating some interest in protecting regional workers despite a general noninterventionist ethos and a weak enforcement system that relies on the actions of state governments. ASEAN might be particularly well suited to designing and implementing a compensation fund like the one described above. More importantly, a regional monitoring and enforcement network would be able to address fishing-industry concerns in multiple countries simultaneously and in coordination.
- International organizations: Many UN treaties establish "treaty bodies" that are designated to investigate and adjudicate claims brought by individuals under the aegis of the treaty in question. The UN strengthened its commitment to stamp out human trafficking with the 2000 Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime, known colloquially as the Palermo Protocol after the city where it was opened for

⁷⁴ Beth Van Schaack, personal communication, October 21, 2020 (comparing potential mechanisms to those used to pay plaintiffs in mass tort cases or, when legislatively created, the 9/11 Victims' Compensation Fund).

See, e.g., "CBP Issues Detention Order on Palm Oil Produced with Forced Labor in Malaysia," U.S. Customs and Border Protection (September 30, 2020), https://www.cbp.gov/newsroom/national-media-release/cbp-issues-detention-order-palm-oil-produced-forced-labor-malaysia; Sophina Eckert, "The Business Transparency on Trafficking and Slavery Act: Fighting Forced Labor in Complex Global Supply Chains," Journal of International Business and Law 12, no. 2 (2013), 383, 388, https://scholarlycommons.law.hofstra.edu/cgi/viewcontent.cgi?article=1244&context=jibl (describing a proposed U.S. Congress bill requiring "publicly-traded or private entities with a minimum of \$100 million in annual global receipts [to] disclose the measures they take to address forced labor, slavery, human trafficking, and the worst form of child labor within their supply chains").

⁷⁶ Association of Southeast Asian Nations, ASEAN Convention Against Trafficking in Persons, Especially Women and Children (opened for signature November 21, 2015), https://www.asean.org/wp-content/uploads/2015/12/ACTIP.pdf.

signature.⁷⁷ Unfortunately, the Palermo Protocol lacks any such treaty body, relying instead on domestic adoption and enforcement of its anti-trafficking provisions. As discussed further on in Section F.2.5, the existing international frameworks and treaty bodies that might be best suited to adjudicating trafficking claims and international labor disputes have overlapping mandates and associated jurisdictional concerns that make current international enforcement of labor trafficking issues all but nonexistent.

Given the comparative weakness of current regional and international enforcement mechanisms, domestic law still seems to be the most appropriate means of enforcing workers' contracts and associated labor rights. With that said, forced-labor issues in the fishing industry can be compounded by domestic law enforcement that is corrupt and permits or aids the proliferation of corruption throughout the system. Norms driven by regional actors or by international treaties can help quash corruption and enforce a culture of good behavior, and corporate actors should press domestic governments to systemically strengthen and enforce their labor-protection and anti-trafficking statutory frameworks. But, until domestic enforcement can be fully trusted or regional/international mechanisms are fully functional, current problems with forced labor may have to be resolved using solutions outside of formal legal processes.

3.4. Appropriateness of Legal Remedies

Individual fishing workers fight an uphill battle in pursuing redress through formal legal means. Access to any of the above-mentioned adjudicatory bodies is a natural concern, given the remoteness of fishing boats as workplaces and the perilous status of often undocumented workers who have been brought in from abroad to work on fishing boats. Most fishing workers have little means of calling for help from their fishing boats, let alone the practical, educational, or financial means to mount a full court case against unjust boat captains or owners. Multiple experts consulted for this report opined that it might be more injurious for fishing workers to be informed of their labor rights and yet unable to exercise them than to be left in the dark about their exploited status.⁷⁹

The NGO community naturally has taken some steps toward ensuring that fishing workers are made aware of their legal rights. NGOs, too, could dispense money from funds created to help provide relief to make-whole workers. In some cases and jurisdictions, NGOs might even be able to bring suit against abusive fishing boat owners and captains, under an *actio popularis* (Latin for "popular action"), a legal mechanism designed to allow members of the public to bring suit on matters of public interest, even if the plaintiffs have no standing or direct interest in the matter at hand.⁸⁰ Provided that workers' voices are adequately represented, any such *actio popularis* could be a highly effective mechanism that would protect the identities and personal resources of individual workers who might wish to remain in the fishing industry, while still holding human rights abusers to account.

⁷⁷ United Nations Human Rights, Office of the High Commissioner, Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children, Supplementing the United Nations Convention Against Transnational Organized Crime (opened for signature November 15, 2000), https://www.ohchr.org/en/professionalinterest/pages/protocoltraffickinginpersons.aspx.

⁷⁸ See, e.g., C4ADS, Strings Attached, 40, 44-45 (detailing the Chinese government's connection to a company engaged in illegal fishing practices).

⁷⁹ Supra, note 18; Supra, note 66.

⁸⁰ Supra, note 74.

A more elementary question is whether fishing workers really desire "justice" through legal mechanisms in the first place. While some workers would undoubtedly find expressive value in the support of their rights by a court, most just want to be paid what they are owed so that they can continue to support the communities to which they are sending home money. Many wish to remain within the fishing industry, albeit with fairer standards for payment and labor protections, and filing suit could put many workers in danger of being blacklisted by fishing boats. Despite its expressive value, prosecution of human rights violations is often a lengthy and highly unsatisfactory process for fishing workers acting as witnesses, who must remain in the prosecuting country throughout the duration of the trial with little financial support and often no means of finding work, due to domestic labor laws. Given the importance within many workers' home communities of workers being able to send money to family, this can lead to the witnesses' ostracization upon finally returning home post-trial. And, after a trial ends, many workers are repatriated to capital cities, without any lost wages repaid and without any means of navigating back home to the smaller villages from which they initially came.

Creating systems of accountability and redress is undoubtedly important to the overall project of deterring human trafficking and enforcing norms of fair labor practices. But actors seeking to create change within the fishing industry should consider carefully the practical impact of international justice on fishing workers who in many cases have few employment options besides their current situations and who might prefer to be abused than unemployed. An ideal solution ultimately would incentivize fair treatment and wages for workers in a manner that does not destabilize the workers' participation in the fishing industry as a whole. If implemented as envisioned, the FLOAT app could create norms and expectations to facilitate the structural transition needed for a fishing industry free of forced labor.

E. Considerations for the Development of the New Model

There are several challenges anticipated with the acceptance, scalability, payments system, and other aspects for the development of the FLOAT platform.

1. Buy-In

The first set of considerations is associated with initial acceptance and willingness of stakeholders to engage with this new technology. For the FLOAT platform to be effective, usage and trust of this app must start with the worker-recruiter relationship and make its way through the supply chain to the top.⁸⁷

- 81 Supra, note 66.
- 82 Ibid.
- 83 Ibid.
- A study of the impact of compulsory return on Chinese workers being forcibly returned from Japan, Korea, and Singapore highlighted the shame associated with being returned home; Biao Xiang, Transnational Encapsulation, Compulsory Return and Migration Control (Duke University Press, 2007): 8-9, accessed November 14, 2020, https://www.researchgate.net/publication/340756245_Transnational_Encapsulation_Compulsory_Return_and_Migration_Control.
- 85 Ibid.
- 86 Supra, note 74.
- 87 Ibid.

The first vital question that must be answered is how to educate recruiters about this platform and subsequently convince them that this technology is trustworthy and beneficial. Recruiters are likely to be the hardest part of the supply chain to infiltrate because they have the least to gain from widespread adoption of this app.⁸⁸ Recruiters, however, are necessary to ensure widespread adoption of the app by workers; they represent the first link in the supply chain that must be digitized to ensure that this digitization cascades throughout the rest of the seafood sector.

Creating systems of accountability and redress are undoubtedly important to the overall project of deterring human trafficking and enforcing norms of fair labor practices.



Other potential problems arise with confidentiality issues and the reluctance of workers to give out any personal information. There is no way to promise that there won't be retribution for negative reviews logged into the system. For the full functionality of the app to be realized, workers will need to incur a certain level of risk, however much we try to minimize it, in signing up for and using this app. Privacy for recruiters and workers alike is a major obstacle given the overarching question of who would actually own the app and take responsibility for control, upkeep, and general monitoring of all information stored within the platform. There is potential for an organization such as ISSF to own the app and take on the role of promoting widespread adoption of the platform. Another option would be to have the app jointly owned by high-level international bodies or by all of the coastal, port, and flag states in the world. This decentralized ownership model could involve buy-in and data sharing from IMO, ILO, and Regional Fisheries Management Organizations (RFMOs) to theoretically ensure some level of compliance and accountability. There are benefits and drawbacks of each of these ownership options; however, this ownership question is beyond the scope of this report and will not be explored further.

2. New Payments System

A shifted payment timeline could additionally help to ensure that buyers have greater autonomy over ensuring accountability and transparency in the industry. Instead of the current model where workers are paid either all at once at the end of their labor contract or sporadically throughout their employment, buyers could require vessels coming into port to settle up not only on their catch but also on worker payments. This would ensure that crews are paid each time fish are offloaded. Buyers could also refuse to purchase fish unless they can verify payment of workers through the platform.

Challenges arise with this payment model due to the fact that not all workers have access to bank accounts or other virtual forms of payments. Workers also often receive cash payments from

captains on top of their regular wages when they dock at port. 90 Additionally, workers might not be able to actually transmit any reports of wage withholding or other abuse (such as being held out at sea beyond the temporal terms of their contract) until close enough to the shore to receive a signal, which could be months after the behavior began. Lastly, it is unclear whether digitized transfer for funds is actually the most useful form for workers to receive their wages. Especially if workers are allowed to go onshore and spend money over the course of their contract, direct cash payments might be the most useful form of transmission; others, meanwhile, might want money sent directly to their families back home, rather than stored in an inaccessible virtual account to which they might gain access only at the end of their contract. These components of the current system present a major challenge to the implementation of a fully digitized payment system and need to be explored further in future research.

3. Legal Considerations

The greatest obstacle to the creation and implementation of safeguards within the FLOAT app, such as those noted in Section D.3, is in the maintenance of the informational videos to continually educate and inform workers. Legal codes and standards change frequently, and it would be labor intensive and costly for FLOAT to monitor domestic codes for all relevant countries and remake the informational videos whenever domestic laws change. The entity maintaining the app should consider partnering with NGOs for the monitoring component and for creating general standards for how much a domestic law regime needs to change before a new video is created, to minimize costs and editing of replacement videos.

4. Other Considerations

There is also the potential for a boat that is using the contracting tool to still be engaging in IUU or other illegal practices. A possible solution to this problem would be to have IUU tracking data integrated (such as through collaboration with an IUU-focused platform like ABALOBI) into the platform so that buyers can ensure that no forms of illegal activity (including labor abuses, IUU, or trafficking) are occurring on the boats with which they are doing business.

A final set of challenges to the scalability of this app is the COVID-19 pandemic and its impact on the global fisheries industry. The pandemic has led to the tightening of restrictions placed on fishing crews that are landing at ports outside of their home countries. Having already been subject to strict labor migration controls before the pandemic, fisheries workers are now even more limited in their movements while at port due to quarantine requirements, regional lockdowns, and other restrictions on their freedom. The pandemic could potentially lead to an uptick in mobility-related labor abuses such as debt bondage, which could further hinder complete acceptance and implementation of this platform.

⁹⁰ Emily Kelly, personal communication, October 28, 2020.

⁹¹ Supra, note 84.

^{92 &}quot;China Opens 10 Ports for Crew Changes Under Strict Protocols," The Maritime Executive (October 13, 2020), https://www.maritime-executive.com/index.php/article/china-opens-10-ports-for-crew-changes-under-strict-protocols.

F. Implications

1. Impacts and Trade-Offs

The adoption of the new FLOAT model will offer the opportunity to create transparency within supply chains, to increase efficiency and responsiveness, and to improve the welfare of fishers and consumers. However, the new model is accompanied by the cost of setting digital infrastructure, maintaining the system, and reaching an agreement among various stakeholders.

1.1. Transparency of Supply Chains

The new model will create transparency and traceability throughout entire supply chains. The platform will automatically be able to check contracts and payments among fishers, recruiting agents, boat owners, captains, seafood buyers, and governments to remove any inconsistency. Under the paper-based contracting system, contracts depend only on bilateral relationships such as fishers-recruiters and sending-receiving agents. The new model will bring greater inclusion of stakeholders to enable a multilayered monitoring system with various perspectives. ⁹⁴ It will also reduce information asymmetry between suppliers and other stakeholders.

1.2. Increased Efficiency and Responsiveness

The new model will foster better information management along supply chains due to improved information accessibility, availability, and sharing.⁹⁵ It will reduce governments' administrative costs to search out the inflow or outflow of labor. Labor-sending countries could take a more active role in protecting their citizens working abroad by monitoring digital contracts through the app.

The app will also improve supply chain management competency by reducing behavioral uncertainty and enhancing collaboration among supply chains. Seafood businesses could use the new model as a tool to better manage their long-term strategies related to supply chain governance. Moreover, the crew-review and red-flagging systems could enable stakeholders to respond to and address the labor abuse issues quickly.

1.3. Improved Welfare of Fishers and Consumers

The new model will standardize contractual terms and conditions across workers' contracts. The automation of payment and the immutability of the contract will protect workers from withheld payment or arbitrary changes of the contract. Thus, the new model will improve welfare of workers by preventing labor abuse and increasing job security.

⁹³ Stefanella Stranieri, et al., "Exploring the Impact of Blockchain on the Performance of Agri-Food Supply Chains," Food Control 119 (2021), 2, 7, 8.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ Ibid.

A thorough investigation of the seafood supply chain will bring enhanced customer satisfaction, especially to customers who are concerned about forced-labor issues.⁹⁷ The new model will provide full "net to plate" traceability and the ability to establish due diligence processes.⁹⁸ Moreover, if the consumer perceives the benefits of transparency in supply chains, they may require more product-related information. The new model can be used as a tool to improve product-quality protocols such as sanitization, storage, etc., which will lead to an increased level of product quality.

1.4. Challenges for Implementation

The new model requires the cost of setting up digital infrastructure. Individual workers and employers need to have digital devices to sign contracts, complete financial transactions, and access review systems. Widespread usage of the app requires that all parties have a smartphone (or reliable access to someone else's smartphone). According to the forced labor-related NGOs' observation, cell phones are still luxuries to some local communities in the world. Having access to Wi-Fi throughout the voyage is another issue. Additional problems might arise in parts of the world with firewalls or other restrictions on internet usage (e.g., China). Our digitized sharing platform may be blocked in certain parts of the world, creating a massive barrier to our end goal of a ubiquitous and effective global platform. There is additional cost for updating and maintaining the system. The system could be susceptible to hacking, so the risk of system outage should be considered. Moreover, using the automatic identification system poses a risk to workers' personal information. Personal information can be stolen and used to commit fraud or other crimes.

The new model requires an agreement among various stakeholders. It could be a prolonged negotiation process that would consume considerable time and resources. Implementing digital contracts in the world of contractless labor is another challenge. It is observed that approximately half of fishing workers work without having contracts.⁹⁹, ¹⁰⁰ Unexpected administrative costs could arise from the need to transplant this digital contract system into these previously uncontracted realms.

Moreover, for captains, recruiters, or boat owners who are currently profiting off of unfair treatment of workers and abusive labor practices, there is little incentive for them to adopt this highly transparent digital system in lieu of their current untraceable paper contracting and payment process. To clear this hurdle, we must consider potential motivating factors that might compel these higher-ups to engage with and trust this new system.

By creating a brand-driven, top-down requirement for full supply chain digitization and focusing on buyer-side payments, we can ensure that the app is used by all boats selling fish to larger distributors at port. This top-down approach would likely be effective at digitizing the contacting and payments between buyers and captains or buyers and boat owners. However, there is no guarantee that this approach would infiltrate all components of the supply chain beyond these upper levels. This underscores our earlier focus on worker education and our intent to infiltrate

⁹⁷ Ibid.

⁹⁸ Supra, note 6, 38.

⁹⁹ Koko Guillain, personal communication, October 30, 2020.

¹⁰⁰ Supra, note 66.

the worker-recruiter relationship first to ensure widespread participation and trust in this platform.

2. Feasibility of the New Model

The new model will be feasible only when other barriers, such as lack of empowerment, lack of actionable remedies, and lack of community support, are addressed.

2.1. Empowerment of Fishing Workers and Other Accountable Actors

In general, fishing workers who have engaged only in forced labor know to expect what they have been exposed to and are less able to know what is right and wrong in a contract.¹⁰¹ Low literacy and/or numeracy,¹⁰² lack of knowledge about other available opportunities, and inability to reject unfair contracts are major barriers to making the digital contract feasible.¹⁰³ There are a number of initiatives for empowering fishers with rights, labor unions, and the safety of the ocean, such as the Know Your Rights (KYR) campaign in Indonesia (see Appendix D).

Thus, empowering fishing workers is a prerequisite condition for making digital contracts feasible, and this can be achieved through the mandatory training suggested in Section D.1.3. However, the information must be delivered in the right context. KYR does not guarantee a safety net, and if society does not reinforce these rights or allow workers to exercise them, this might make workers feel more vulnerable. Therefore, it is important to move toward workers knowing how to access these rights and feeling comfortable exercising them.

Also, sending agents, recruiters, buyers, vessel owners, and observers are key actors in creating accountability for fair contracting and payment. ISSF could empower various stakeholders through its guidebooks.¹⁰⁴ For example, ISSF provides a set of skippers' guidebooks that contain useful information for fishers, such as species identification and shark dehooking.¹⁰⁵ ISSF has a training guidebook for observers as well.¹⁰⁶ ISSF could combine KYR contents, ILO guidelines, and other human right resources into the guidebook to incentivize fishers and other actors to review this resource. This could be especially useful for IUU observers, who have been very effective in reporting IUU infractions for individual vessels and who could add labor abuses to their observations and reporting by referring to the information in the guidebook.

¹⁰¹ Supra, note 18.

Southern Asia (72%) and Sub-Saharan Africa (65%) show the lowest adult literacy rate in the world; UNESCO Institute for Statistics, Literacy Rates Continue to Rise from One Generation to the Next (Fact Sheet 45, FS/2017/LIT/45, September 2017), http://uis.unesco.org/sites/default/files/documents/fs45-literacy-rates-continue-rise-generation-to-next-en-2017_0.pdf.

¹⁰³ Emily Kelly, personal communication, October 6, 2020.

¹⁰⁴ Susan Jackson, personal communication, October 19, 2020.

¹⁰⁵ International Seafood Sustainability Foundation, Skippers Guidebook to Sustainable Longline Fishing Practice, http://www.issfguidebooks.org/downloadable-guides.

¹⁰⁶ International Seafood Sustainability Foundation, Training Guide for Purse Seine Observers, http://www.issfguidebooks.org/download-able-guides/observer-guide-english.

2.2. Designing Accessible Remedies

Regardless of the success of legal action (discussed in Section D.3.3), the pursuit of legal remedies at least has the effect of giving a voice to victims of labor and human rights abuses. Filing a lawsuit for breach of contract can be a very difficult task for a worker to undertake; however, it is not impossible.

Alternative dispute resolution (ADR) methods such as arbitration, mediation, conciliation, or consultation, which are designed to be a more flexible, less formal, and less complex means of resolving disputes quickly and with less cost than court proceedings, could serve as an important tool in settling disputes and providing remedy to victims. Online forms of ADR may bring additional accessibility and efficiency. Moreover, legal aid from NGOs or the government could help people to access legal remedies. Lack of knowledge, concern about legal costs, or fear of pursuing legal action makes many people hesitant to seek legal help.

Nonjudicial UN instruments provide standards that take a broad understanding of effective remedies. "The Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations" include equal access to justice; adequate, effective, and prompt reparation for harm suffered; and access to relevant information concerning the violation. "Guiding Principles on Business and Human Rights," which implements the UN's "protect, respect and remedy" framework, asks for the participation of companies in developing remedy strategies, such as grievance mechanisms to protect against abuses and facilitate the remedy process. Most of all, it is important to project perceptions of workers' wants and needs. Workers' right to participation, security, adequate standards of living, health, adequate housing, education, and right to land should be considered in designing remedies.

2.3. Creating More Business Accountability

Business has a key role to play to make sure that illegally caught fish do not enter the supply chain. However, it is hard to win support for human rights in the business world unless we convince them with a security- or economic-based argument. It is important to quantify the costs of the negative externalities of mistreating a human being and to assert that this cost can be forced onto the companies themselves. For example, insurance companies put a "price" on human life and condition all the time. Halso, business could be rewarded with a brand reputation, which could have a financial impact over time.

¹⁰⁷ United Nations Human Rights, Office of the High Commissioner, Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law (2006), https://www.ohchr.org/en/professionalinterest/pages/remedyandreparation.aspx.

¹⁰⁸ United Nations Human Rights, Office of the High Commissioner, Guiding Principles on Business and Human Rights (2011), https://www.ohchr.org/documents/publications/quidingprinciplesbusinesshr_en.pdf.

¹⁰⁹ Ashley Feasley, "Eliminating Corporate Exploitation: Examining Accountability Regimes as Means to Eradicate Forced Labor from Supply Chains," Journal of Human Trafficking 2, no. 1 (2016): 21.

¹¹⁰ Regiane Cristina de Oliveira, "Seeking Victim's Perspective on Remedy: The Case of Brazil Verde Farm's Workers," Revista Direito GV 14, no. 2 (2018): 354-355.

¹¹¹ Supra, note 18.

Major seafood businesses, such as Bumble Bee, stress that building business accountability is not overnight work, and it will take a long time to penetrate schemes into supply chains. Bumble Bee is a member of the Seafood Task Force (STF), which consists of the three main US brands and the two largest tuna canners in the world. The STF has developed a set of auditing standards and a code of conduct with tuna vessels in mind. Bumble Bee stresses that the company requires a push-pull approach from all socially responsible operators. It is also important to have peer pressure among seafood companies to follow mission-driven ethos. Sharing a set of collective objectives and cultivating a work environment where businesses are proud of what they are doing can be impactful. There are a number of initiatives that promote business accountability, such as the Know the Chain campaign in Singapore (see Appendix D).

Consumers can also play a role in demanding net-to-plate transparency or traceability.¹¹⁴ However, there is a theory that consumers are a very small part of the dynamic and that they do not wield the power in supply chains. According to a GlobeScan survey of seafood consumers, less than 10 percent of seafood consumers were concerned about labor conditions, while more than 30 percent cared about ocean environment and sustainability of fish stocks.¹¹⁵ To really engage consumers, it is better to focus on increasing transparency along the supply chain and allow consumers to monitor the supply chain.

2.4. Political/Legal Commitment of States

Forced labor will not be eradicated under a weak government.¹¹⁶ To eradicate forced labor from sending countries and receiving countries, it is important to enforce existing laws or update laws if there is a loophole in the existing laws to regulate sending agents, recruiters, or vessel owners and to protect citizens from forced labor.

In the meantime, initiatives were suggested in developing countries to spur due diligence for labor standards and combat labor exploitation in global supply chains. Societal coalitions have pressured states to pass domestic legislation. For example, US lawmakers have reacted to press coverage and consumer outrage over the forced-labor issue by proposing legislation that aims to increase supply chain transparency and accountability. The Business Supply Chain Transparency on Trafficking and Slavery Act of 2015 (BSCT) has been proposed in response to "The Outlaw Ocean," The New York Times series by journalist Ian Urbina exposing crimes on the high seas. The BSCT bill was proposed several times, but has not been passed in Congress yet. Similarly, the UK enacted the Modern Slavery Act 2015. This is the first piece of legislation that requires annual reporting on the steps taken to address modern slavery in a company's own operations and supply chains.

- 112 Supra, note 51.
- 113 Reviewed and verified by Susan Jackson, Jessie Brunner, Jessica Sparks, and Mike Kraft.
- 114 Supra, note 6, 38.
- 115 Supra, note 66.
- 116 Supra, note 99.
- 117 Genevieve LeBaron, et al., "The Domestic Politics of Corporate Accountability Legislations: Struggles Over the 2015 UK Modern Slavery Act," Socio-Economic Review 17, no. 3 (2019): 709.
- 118 Katharine Fischman, "Adrift in the Sea: The Impact of the Business Supply Chain Transparency on Trafficking and Slavery Act of 2015 on Forced Labor in the Thai Fishing Industry," Indiana Journal of Global Legal Studies 24, no. 1 (Winter 2017): 234-235.

2.5. Developing a Global Agenda

For the success of the new model, both vertical and horizontal penetration of the supply chain must be achieved. It is important to promote the new model as a global agenda and gain universal support. Currently, ISSF develops its agendas and shares them with other tuna NGOs and RFMOs. ¹¹⁹ These are their main targets and are also the platform through which ISSF works to spread best practices. Regarding the forced-labor issues in the fishing industry, there are more international platforms and initiatives that ISSF can reach.

For example, the Food and Agriculture Organization of the United Nations (FAO) and IMO are relevant to fishing practices and rights of fishers or seafarers. The ILO and the United Nations Office on Drugs and Crime (ODC) focus on labor conditions or human trafficking in the fishing industry. The overlaps of mandates among various organizations make it unclear who has a primary role in combating forced labor in the fishing industry. Under these circumstances, it will be important to spot the overlapping issues and reach out to more relevant and active organizations.

In the meantime, the working group of the United Nations Commission on Human Rights has proposed a zero-draft treaty on business and human rights¹²¹ that articulates legal liability for human rights abuses committed by business enterprises or with their participation.¹²² The second revised draft of the treaty was proposed in August 2020. The success of this business and human rights treaty will create momentum to spur usage of FLOAT as a tool to create business accountability in supply chains around the world.

G. Conclusion

The global industrial fisheries sector consists of a complex web of stakeholders, jurisdictions, and regulatory regimes. The current scheme of contracting and payments for workers within this sector is particularly complicated and important due to the prevalence of forced labor, modern slavery, and financial abuses within the industry. In this memo, we propose a digitized, multilateral contracting and payment system as a way to address this global problem of forced labor within the fisheries sector. There are many barriers to the creation, implementation, and scalability of this approach. However, we feel that this is the most feasible and potentially effective solution to the immense and seemingly intractable problem of human rights abuses on the global oceans.

¹¹⁹ Supra, note 104; ISSF homepage, https://iss-foundation.org/.

¹²⁰ Supra, note 74.

¹²¹ United Nations Human Rights, Office of the High Commissioner, Legally Binding Instrument to Regulate, in International Human Rights Law, the Activities of Transnational Corporations and Other Business Enterprises (July 16, 2018), https://www.ohchr.org/documents/hrbodies/hrcouncil/wgtranscorp/session3/draftlbi.pdf

¹²² Carlos Lopez, The Revised Draft of a Treaty on Business and Human Rights: A Big Leap Forward (August 15, 2019), http://opiniojuris.org/2019/08/15/the-revised-draft-of-a-treaty-on-business-and-human-rights-a-big-leap-forward.

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