

Chapter 18

Human Rights and the Sustainability of Fisheries

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INTRODUCTION

Capture fisheries and aquaculture production—like other industries—rely upon functioning environmental and social systems, and interdependencies between those systems mean human beings must be considered when addressing issues of environmental conservation. Although there can be legitimate disagreement about the level of a fished stock consistent with a well-managed fishery, the international norm is clearly that commercial industries, such as fisheries should not participate in slavery or other human rights abuses. Human rights and labor abuses within seafood supply chains have been exposed both on land and at sea. In this chapter we provide an overview of abuse aboard fishing vessels and use a simple bioeconomic model to illustrate the feedback between environmental degradation related to fishing activity and human rights. Following that, we discuss the intersection of international and national regulations of human rights and show that in the overlap there is considerable room for more policy development with respect to human trafficking, forced labor, and modern slavery¹ at sea. We close with a summary of public and private-sector initiatives that may help extend the reach of regulation beyond national borders to reduce this world-wide problem.

1. The terms associated with modern slavery, forced labor, and human trafficking are likely unfamiliar to many readers of this volume, so we provide an appendix in which they are defined. In the case of fisheries, it is important to note that although human trafficking may lead to forced labor, not all forced labor is the result of human trafficking—indeed one of the greatest forced labor problems in fisheries occurs when migrants seeking better pay and working conditions are drawn into complicated debt systems that may force individuals to work for many years before receiving any income at all (Sylwester, 2014; p. 432ff).

HUMAN RIGHTS ABUSE IN SEAFOOD SUPPLY CHAINS

Until a few years ago, academics, journalists, and the media had documented relatively few instances of human trafficking or human rights abuses in the seafood sector, especially when compared to other industries (e.g., apparel, conflict minerals). In 2012, *Bloomberg Businessweek* reported that fishermen on a South Korea-flagged ship were forced to work up to 30h shifts in deplorable working conditions and subjected to physical and sexual abuse (Skinner, 2012). In 2014–15, investigations by *The Guardian* (Hodal et al., 2014), Associated Press (McDowell et al., 2015), and the *New York Times* (Urbina, 2015) further exposed the harsh realities of some seafood operations in mainstream media. These articles revealed evidence of human trafficking, forced labor, and other abuses occurring within some seafood operations, garnering widespread attention.

Although much of the research and media coverage of seafood-related human rights and labor abuses has focused on Thailand—where abuses have been exposed in both aquaculture and wild capture supply chains—a growing body of evidence is showing that the issues are not limited to developing countries. Human rights abuses can and do occur in developed countries with established and highly regarded fishery management systems (Kelbie, 2008; Simmons and Stringer, 2014; Stringer et al., 2011, 2016; Lawrence et al., 2015). For example, migrant fishing crew aboard South Korean vessels in New Zealand’s waters were found to be victims of forced labor (Stringer et al., 2011, 2016; Skinner et al., 2012; Simmons and Stringer, 2014). Abuses have also been identified in the United Kingdom, where a legal loophole in EU transit rules enabled exploitation of Asian and African fishermen (Lawrence, 2015), as well as in Ireland (Lawrence et al., 2015) and Scotland (Kelbie, 2008), where migrant workers were recruited illegally on transport visas, charged fees for recruitment, and had their passports confiscated and their wages underpaid or unpaid.

Human rights and labor abuses in the fisheries sector can occur both on land and at sea, but some of the worst violations in the seafood industry have been reported to occur aboard fishing vessels employing migrant workers (ILO, 2013a). When cheap labor is scarce domestically, vessel owners and operators often turn to migrant workers. The use of unskilled migrant labor can reduce crew costs considerably for vessel owners who target these workers due to their willingness to accept low paying, dangerous, or temporary jobs (UNIAP, 2009; ILO, 2013a). Frequently migrant laborers find themselves without advocates or support networks, and because they are often isolated by language and cultural barriers, they are much more vulnerable to labor abuse and trafficking (ILO, 2013a). Even nationals who migrate within their country of residence can be targeted. For example, Thai men who migrate internally for work also risk being trafficked into labor exploitation on Thai fishing boats (US Department of State (USDOS), 2010).

Once aboard, crew can be contracted to a vessel or vessel owner for a period of months or years, regardless of whether they have any working knowledge of the fishing industry or desire to become fishers (EJF, 2013a). Case studies from the last decade cite examples of recruitment under false pretenses, 20 h workdays, child labor, physical and mental abuse, abandonment, and withholding of pay and identifying documents (Skinner, 2008, 2012; Surtees, 2008, 2012; Stringer et al., 2011; EJF, 2010, 2013b; Yea, 2014; ILRF, 2013; ILO, 2013a,b; USDOS, 2015). In one report, over half the victims interviewed reported seeing a fellow crew member murdered (UNIAP, 2009).

INTERRELATIONSHIP BETWEEN HUMAN RIGHTS AND ENVIRONMENTAL PROTECTION

Human rights and labor abuses such as those described earlier are clearly linked to numerous societal drivers (e.g., greed, corruption, cultural inequity, and global economic conditions, among others), but they are also rooted in environmental problems. For example, as overfishing has led to the decline of fish stocks closer to shore (FAO, 2012), vessels are traveling farther out to sea (ILO, 2013a). Fishing in more remote locations for longer periods increased fuel and operating costs for longer trips (facilitated at times by the use of transshipment vessels), and diminished catches provide ample incentive and opportunity to take advantage of the low risk of being caught when committing human rights abuses or other crimes such as illegal fishing. Economic pressures exacerbated by decreasing catch can also lead operators to cut corners with health and safety provisions aboard vessels (EJF, 2010, 2015; FAO, 2012; ILO, 2013a; Stringer et al., 2011). For example, there are reports of unhygienic working conditions, inoperable or complete lack of radio or fire safety equipment, substandard food, and poor accommodations (EJF, 2010).

The Lesson of Bioeconomics

Classical bioeconomic models (Gordon, 1954; Clark, 2010; Mangel, 2006) illustrate how the verbal arguments about human rights translate to predictions of sustainability for fisheries (cf. Brashares et al., 2014). In such models, one characterizes the biological dynamics and then economic dynamics by accounting for operational parameters (how easy it is to catch fish, q), costs c , and prices p .

The bionomic equilibrium (Gordon, 1954) corresponds to the situation in which effort is essentially uncontrolled and increases until in aggregate the rate of return from the fishery is 0. The population size at which this occurs is $N_b = c/pq$, which involves none of the biological parameters but rather the socioeconomic (c, p) and operational (q) parameters (see Mangel, 2006; p. 219).

As the right-hand side of this equation declines, for example, because costs c decrease, the left-hand side follows and may lead to a population size that is considered overfished. As the left-hand side declines, for example, because of overfishing, the right-hand side can decline in a variety of ways, but if p and q are fixed, then it will be through reducing costs c by legal (e.g., improved gear or fuel efficiency) or illegal means (e.g., by human rights and labor abuses such as forced labor, unfair wages, and long hours, or by not complying with regulations).

For a sole owner maximizing economic return, the consequence of the cost of fishing is that the economically optimal steady-state population size is often above the biologically determined maximum sustainable yield (MSY) level (Clark, 2010; Grafton et al., 2007; Mangel, 2006). According to the model, reducing costs pushes populations closer to MSY levels, but in a world of uncertain parameters and stochastic fluctuations, MSY is better as a limit than a target (Mangel et al., 2002) because it is too easy to have takes larger than MSY, leading to the decline of the stock, creating pressure to reduce costs, leading to the same kind of reinforcing cycle.

In summary, classical bioeconomics suggests that by driving down cost of fishing c , human rights and labor abuses (along with deregulation of fisheries, regulatory noncompliance, poor enforcement, uneven economic development, and other variables) can lead to environmental detriment. This conclusion illustrates the difficulty of relying on environmental policy alone to protect fishery resources from depletion.

LEGAL INSTRUMENTS ADDRESSING TRAFFICKING, FORCED LABOR, AND SLAVERY

Given the global and transboundary nature of many fisheries and seafood supply chains, international policy is an obvious place to look for human rights and labor protections for seafood workers. Between the 1920s and 2000, policy makers in the World Trade Organization (WTO), the United Nation's International Labor Organization (ILO), and the Food and Agriculture Organization adopted a range of voluntary measures, treaties, and conventions relevant to human rights and trafficking in fisheries, some of which include enforcement mechanisms (Table 18.1). However, implementation of international policy generally relies upon national-level policy adoption and enforcement. In this section, we briefly discuss how human rights in fisheries is (or is not) addressed within international conventions and national regulations, and point to some of the barriers to enforcement that hamper their effectiveness. We then discuss the jurisdictional challenges to national and international regulation of fisheries.

Fishing and International Labor Protections

International antislavery and antitrafficking laws in labor conventions date to the 1920s. In Fig. 18.1, we illustrate some of these conventions beginning

TABLE 18.1 International Conventions Relevant to Human Rights Abuses at Sea^a

Type	Name	Provisions	Status and Ratifications
Convention—trafficking	United Nations Convention against Transnational Organized Crime (UNTOC) ^b	<ul style="list-style-type: none"> Includes specific language regarding transnational trafficking and smuggling aboard fishing vessels The UNTOC is the guardian of the protocol to prevent, suppress and punish trafficking in persons, especially women and children, and the protocol against the smuggling of migrants by land, sea, and air 	Adopted—2000 Entry into force—2003 Ratifications: 187 US ratified: Yes
Convention—labor, fishing, maritime safety	International Labor Organization (ILO) work in Fishing Convention (no. 188) ^c	<ul style="list-style-type: none"> Applies to all vessels engaged in commercial fishing and put responsibilities on vessel owners and skippers for ensuring crew health and safety Crew must be old enough to work and should be provided rest, and sufficient wages, food, and medical care 	Adopted—2007 Coming into force—2017 Ratifications—10 US ratified: No
Convention—labor, maritime safety	The International Labor Organization's (ILO) Maritime Labor Convention ^d	<ul style="list-style-type: none"> International requirements for decent work for all seafarers Title 5 under the convention: Outlines requirements for member state compliance and enforcement of provisions Fishing vessels exempt (see Article 2. Section 4) 	Adopted—2006 Entry into force—2013 Ratifications—81 US not a party
Convention—maritime safety	(IMO) Convention for the Safety of Life at Sea (1974) ^e	<ul style="list-style-type: none"> International treaty concerning safety of merchant and passenger ships Outlines minimum standards for construction, equipment, and operation of ships Fishing vessels exempt (see Chapter 1. General provisions, Reg 3. Exceptions) 	Adopted (first version)—1914 Adopted (1974 version)—1974 Entry into force—1980 Ratifications—163 US ratified: Yes

Continued

TABLE 18.1 International Conventions Relevant to Human Rights Abuses at Sea—Cont'd				
Type	Name	Provisions	Status and Ratifications	
Standard/convention—fishing	(IMO) Standards of Training, Certification and Watchkeeping for Fishing vessel personnel (STCW-F Convention) ^f	<ul style="list-style-type: none"> • First treaty that mandates and normalizes standards of safety for crews of fishing vessels internationally through mandatory training standards • According to the IMO, it generally applies to sea-going fishing vessels 24 m in length or more 	Adopted—1995 Entry into force—2012 Ratifications—20	
Convention/protocol—labor, maritime safety	(IMO) Torremolinos Convention, Torremolinos Protocol, and the Cape Town Agreement ^g	<ul style="list-style-type: none"> • Applies to new fishing vessels 24 m in length or more (see Chapter 1. General provisions, regulations 1. Application, in consolidated text)^h • Cape Town Agreement allows administrations to give exemptions if viewed as unreasonable and impracticable (see Chapter 1. General provisions, regulations. 3. Exemptions, in consolidated text)^h 	Not yet entered into force US Ratified: No	

^aFor the purpose of this table, we use the term “ratification” to include all parties to the treaty including signatures, ratifications, acceptances, approvals, and accessions.

^bUnited Nations Office on Drugs and Crime (UNODC), 2016. *Convention against Transnational Organized Crime and the Protocols Thereto*. Available at: <http://www.unodc.org/unodc/treaties/CTOC/>.

^cInternational Labor Organization (ILO), 2016. C – 188 *Work in Fisheries Convention, 1997*. Available at: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C188.

^dInternational Labor Organization (ILO), 2016. *Compendium of Maritime Labour Instruments – second (revised) ed*. Available at: http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_093523/lang-en/index.htm.

^eInternational Maritime Organization (IMO), 2016. *International Convention for the Safety of Life at Sea (SOLAS), 1974*. Available at: [http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Safety-of-Life-at-Sea-\(SOLAS\)-1974.aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Safety-of-Life-at-Sea-(SOLAS)-1974.aspx).

^fInternational Maritime Organization (IMO), 2016. *International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F)*. Available at: <http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-on-Standards-of-Training-Certification-and-Watchkeeping-for-Fishing-Vessel-Personnel.aspx>.

^gInternational Maritime Organization (IMO), 2016. *The Torremolinos International Convention for the Safety of Fishing Vessels*. Available at: <http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/The-Torremolinos-International-Convention-for-the-Safety-of-Fishing-Vessels.aspx>.

^hThe Torremolinos International Convention for the Safety of Fishing Vessels (Consolidated Text). A.15-A, pp 183. Available at: https://www.parliament.nz/resource/en-NZ/51DBHOH_PAP68720_1/a3bce13917a069ca8b800deb29b36b4de3a4071.

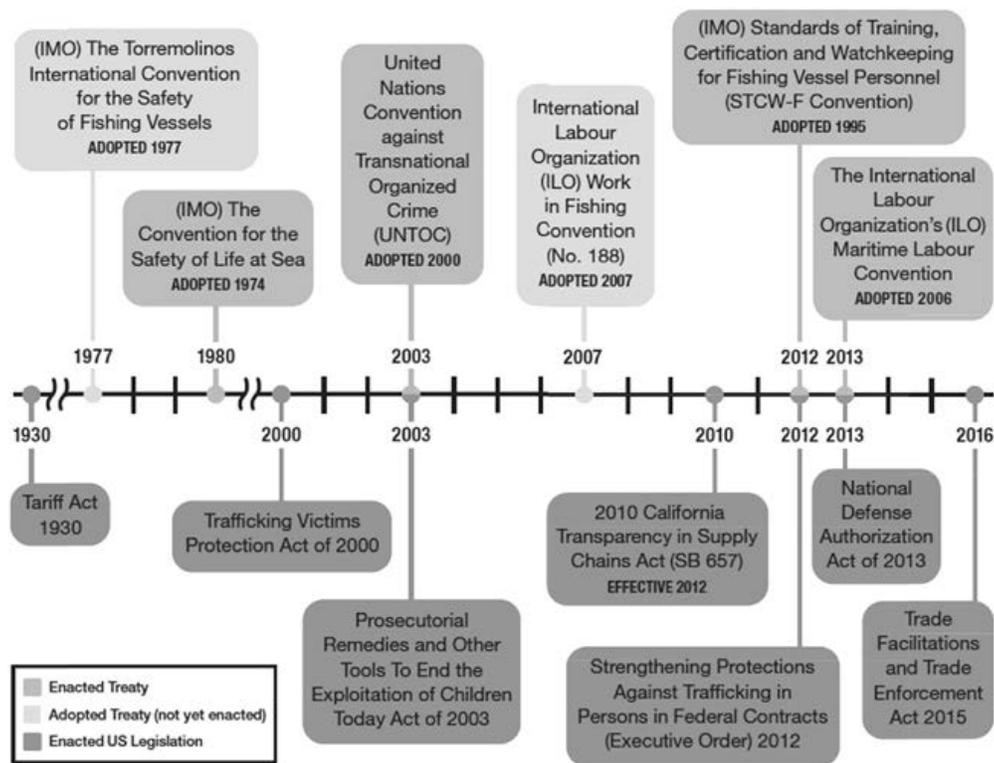


FIGURE 18.1 Timeline of national and international policy adoption relevant to trafficking and forced labor in fisheries.

with the Slavery Convention of 1926—a pre-UN convention formed through international multiparty legislation. [King \(2015\)](#) writes “these instruments laid the foundation for the contemporary conventions and efforts to eliminating trafficking.” Unfortunately, despite the presence of numerous antitrafficking and forced labor conventions, the enforcement of their provisions aboard vessels specifically is a unique regulatory challenge.

The reach of treaties and conventions is limited by the requirement that they be ratified by the individual governments of each signatory nation. For instance, the ILO Forced Labor Convention, 1930 (No.29) has been adopted by 178 of 187 ILO members. It prohibits all forms of forced or compulsory labor and requires that ratifying states ensure that the relevant penalties imposed by law are adequate and strictly enforced. However, the United States, China, South Korea, and a handful of small Pacific island countries are among those nations that have not yet ratified the convention, leaving the crew of their fishing fleets less protected.

Another major contributor to the vulnerability of fishers at sea arises from the exclusion of fishing vessels and personnel from key provisions within maritime safety standards and international conventions and size limits aimed at large vessels tied to these requirements ([Petursdottir et al., 2001](#); [Simmons and Stringer, 2014](#)). Fishing vessels are excluded from

the majority of provisions in the Convention for Safety of Life at Sea, the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers, and the Marine Labor Convention. A notable exception that applies to all fishers and fishing vessels engaged in commercial fishing operations is the Work in Fishing Convention (No.188), which aims to ensure that fishers have decent conditions of work on board fishing vessels with regard to minimum requirements for work on board; conditions of service; accommodation and food; occupational safety and health protection; medical care and social security. The Convention may come into force 12 months after it has been ratified by 10 states, 8 of which must be coastal countries.

Human trafficking also continues to occur on a global scale, despite several international treaties aimed at combating it (USDOS, 2015). One contributing factor may be that the implementation and enforcement of treaties is largely left to the ratifying countries, yet accountability or punitive measures for countries that stop complying are limited (Gallagher, 2010). For example, although Russia—a top fisheries production and export nation (FAO, 2012)—ratified the UN Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, and the Protocol Against the Smuggling of Migrants by Land, Sea and Air, there are multiple reports of trafficking and forced labor practices aboard Russian fishing vessels (Surtees, 2008, 2012). In fact, due to its failure to comply with even the “minimum standards for the elimination of trafficking” (USDOS, 2013a), Russia was downgraded to the lowest possible level (Tier 3) in the USDOS (2013a) Trafficking in Persons Report and remains Tier 3 in 2016.² Indeed, in many cases ratifying nations have little recourse beyond political pressure or trade sanctions to ensure that treaties are enforced. These political and economic tools are primarily used to tackle the most egregious forms of abuse (e.g., slavery, human trafficking, child labor, forced labor, and workplace violence) and do not address the full spectrum of labor violation (e.g., unfair wages, worker safety, unionization, harassment). Antitrafficking policies have been useful for drawing attention and acting on criminal activities in labor recruitment and abuse but more is needed to address the underlying causes of forced labor in fisheries, including improvements in migration management and addressing the vulnerabilities of migrant workers (Marschke and Vandergeest, 2016).

2. The US State Department’s Trafficking in Persons Report assesses how well governments are addressing and responding to the crime(s) of human trafficking. Tier three designations are assigned to countries whose governments do not fully comply with Trafficking Victims Protection Act (TVPA) standards and are not making significant efforts to do so. There are currently 27 countries and territories with a Tier three designation, including North Korea, Iran, and Saudi Arabia (USDOS, 2016).

National Policy Efforts to Address Human Rights

In many cases, national level regulations exist to protect workers from abuse but many nations still have considerable work ahead to improve protections for fishers. For instance, in response to harsh criticism Thailand has begun to overhaul its fisheries legislation and management ([Ministry of Foreign Affairs of Thailand, 2015](#)) and enact regulatory changes designed to register migrant workers and combat forced labor in the fisheries sector. With improved policies in place, the Thai government aims to implement their fisheries management plan and impose criminal and administrative sanctions for those that violate fisheries and labor-related laws. In another example, New Zealand's Fisheries (Foreign Charter Vessels and Other Matters) Amendment Act (14/60) requires that all foreign-flagged vessels operating within New Zealand's exclusive economic zone (EEZ) are reflagged to New Zealand ([NZ Parliament, 2014](#)). This change in flag means that the vessels and crew are accountable to New Zealand health, safety, and labor criminal laws. Ireland also recently overhauled its system for documenting and protecting fishing crew aboard Irish vessels from labor abuse following a Guardian report ([Lawrence et al., 2015](#)). They have introduced a system that includes provisions for clear contracts, minimum pay, and terms and conditions that are enforceable in Irish and EU law ([Interdepartmental Government Task Force, 2015](#)).

THE LIMITED REACH OF NATIONAL AND INTERNATIONAL ENFORCEMENT

Unfortunately, enforcing regulations in fisheries—both national or multinational—is not generally straightforward. Responsibility for prosecuting a given violation could require action by several local and national regulatory bodies within both the country of harvest and the vessel's flag nation. It can be challenging to enforce domestic or international laws on another country's vessels due in part to customary international law pertaining to the limits of national regulatory domains. Under the UN Convention on the Law of the Sea (UNCLOS), countries are typically unable to enforce many regulations or treaties on foreign flagged vessels outside of their 12 nautical mile territorial sea, and they have only limited power to police vessels operating within their EEZ (12–200 nautical miles). The broad-scale ratification of UNCLOS—167 nations including the EU as of 2017—means that even a state that is not party to the convention (e.g., the United States) must recognize UNCLOS as customary international law. The limits of domain are particularly problematic for monitoring distant water fleets fishing on the high seas, outside the customary jurisdiction of nation states. In these fisheries, vessels are only held to the laws of their flag nation and those of applicable regional fisheries management organizations (RFMOs).

Another enforcement challenge arises when countries attempt to monitor vessels fishing under their flag in foreign waters. Fishing vessels can often go for long periods without coming into port or reentering their flag country, and monitoring a global fishing fleet can be very resource intensive, and the flags of countries that do not properly monitor their fleets can be exploited by those engaging in illegal and unethical labor or fishing practices. So-called “flags of convenience,” issued by poorly monitored flag states, shift the enforcement burden over to the harvest and port states. For example, though New Zealand is a country with some of the best managed fisheries in the world from an ecological standpoint ([Ministry of Primary Industries, 2016](#)), until recently their domestic agencies failed to recognize the deception, exploitation, and coercion occurring aboard some foreign charter vessels in New Zealand waters ([Stringer et al., 2011, 2016; Simmons and Stringer, 2014](#)).

PROMISING AVENUES FOR CHANGE

Given the limited reach of most national regulations and treaties relevant to human rights and trafficking, some of the most exciting and creative regulations for protecting workers at sea have placed greater reporting and enforcement responsibilities on private sector businesses. For example, the California Transparency in Supply Chains Act (2010) requires large retailers and manufacturers doing business in the state of California to disclose on their web sites their efforts to eradicate slavery and human trafficking from their direct supply chains of goods offered for sale. It also requires disclosure concerning product supply chains, supplier audits and certifications, and internal accountability ([USDOL, 2016](#)).

The UK [Modern Slavery Act \(2015\)](#) is even more stringent than the California Transparency in Supply Chains Act. It requires that as of March 31, 2016, commercial organizations above a threshold size must prepare a slavery and human trafficking statement each year and indicate steps taken during the applicable year to ensure that human trafficking is not occurring in the supply chain or business. Topics requiring disclosure include the organizational structure, business model and supply chain relationship, applicable policies, due diligence and auditing processes, human trafficking risks, and steps taken to assess and mitigate risk, compliance effectiveness, and training.

Transparency regulations have numerous advantages for addressing human rights in fisheries. First, they take advantage of the transnational nature of many seafood companies—harvesting from multiple EEZs or across RFMOs on the high seas. Making these companies become agents of labor change could help regulators get around the limitations to national regulatory domain by allowing the countries buying the seafood products to influence fishing activities occurring beyond their borders and outside of their flagged fleets. Second, by not being overly prescriptive about how companies approach the task of monitoring and addressing human rights and trafficking risks in their specific

supply chains, this kind of regulation could provide companies with the flexibility to develop their own tailored and innovative approaches. Policy making can be very slow—particularly at the international level where it is hindered by the need for national level adoption and ratification of treaties—whereas private businesses can implement changes much more rapidly. Third, improving transparency allows nongovernment individuals to fact check information and encourage laggards to improve.

Unfortunately, to date many of these efforts still fall short regarding enforcement. For example, the California Transparency in Supply Chains Act has only resulted in one court opinion since its passage (*Barber v. Nestle USA*), where it was ruled that companies do not need to actively improve labor practices, only to disclose their company policies ([US District Court, 2015](#)). In addition, from 1932 until 2016 there were only 40 enforcement actions were taken under the United States; Tariff Act of 1930 ([Bajaj, 2015](#)). Even so, such requirements are promising options for expanding the reach of domestic policy far beyond national borders and are beginning to address the jurisdictional challenge facing other types of country-based public regulation.

The Role of Industry

Although the primary duty to protect human rights remains with national governments, companies have an internationally recognized responsibility to respect human rights in their operations—as was underscored by the United Nations Human Rights Council in 2011 in their “Guiding Principles on Business and Human Rights” ([UN, 2011](#)). Seafood companies are increasingly incorporating human rights in sustainability initiatives into their business plans, in part due to the benefits of mitigating the legal and reputational risks associated with human rights violations or illegality. An increasing number of companies are recognizing the need for an expanded vision of sustainable seafood that embraces social, environmental, and economic considerations and hoping to meet consumer demands while gaining positive press and visibility for their brand and product ([Boyle, 2014](#); [FishWise, 2016](#)). Many are voluntarily investing in traceability and monitoring technology (e.g., Bumble Bee), committing to respect human rights (e.g., Nestlé), and working in partnership with governments, international organizations, and civil society initiatives to promote sustainable seafood (Safeway and Fair Trade Seafood). Still others struggle with new concerns about monitoring and enforcing working conditions and labor standards throughout the complex supply chains of multinational companies around the world. Clearly, opportunities exist for regulators and private industry to work together to address human rights abuses as neither can solve the problem alone. For example, Issara Institute, a public–private–social partnership, brings together a wide range of global brands, retailers, nongovernmental organizations, academics, and technical experts to investigate and resolve labor issues in export-oriented seafood supply chains and progressive companies have joined

the Seafood Task Force to precompetitively address issues of collective concern and communicate with local government. Whether through regulations like the UK Modern Slavery Act and the Trade Facilitation and Trade Enforcement Act of 2015 (H.R. 644) or through voluntary measures, industry initiatives must incorporate greater transparency and traceability within seafood supply chains, genuine worker feedback and representation, and remedies for victims.

DISCUSSION AND CONCLUSION

There is progress, represented by the adoption of policies, the rise of voluntary initiatives, and the expansion of legal and voluntary frameworks steering the international community toward social responsibility. However, even with the growing number of government and industry initiatives, workers remain vulnerable, documentation of significant concerns continue, and additional mechanisms for accountability are still urgently needed. In addition to working with businesses, national and international policy makers need to work on mainstreaming human rights into environmental and trade considerations. Dalal-Clayton and Bass (2009, p. 11), writing in the context of development, describe environmental mainstreaming as the “informed inclusion of relevant environmental concerns into the decisions of institutions that drive national, local and sectorial development policy, rules, plans, investment and action.” In the long-term, management of human rights abuses in seafood will benefit from environmental mainstreaming in human rights law and treaties and human rights mainstreaming in environmental and trade law and treaties (Sylwester, 2014).

Given the international nature of fisheries supply chains, trade law could become another crucial tool for combatting human trafficking and labor abuse. The WTO has focused on promoting free trade for many years, but in almost five decades there was barely a reference to the notion of human rights in the General Agreement on Tariffs and Trade (GATT, 1947) system. Although the WTO has recently collaborated on several documents relevant to human rights with UN organizations, each body has a unique mandate that can lead them to prioritize issues differently and to prefer different policy approaches (Bartels, 2009). Indeed, human rights and labor protections may conflict with trade liberalization policies (Bartels, 2009, p. 593). Human rights institutions (e.g., the ILO and other UN agencies) have recognized that trade liberalization may lead to human rights violations (Bartels, 2009), and in 2002 and 2003 the UN Commission on Human Rights produced two reports (UN, 2002, 2003) on globalization and human rights. Reflecting on these reports, Bartels (2009) notes that trade liberalization and human rights—much like environmental policy and human rights—share the common goal of bettering the human condition by improving understanding between nations and improving human welfare. Thus although the WTO is a less obvious source of human rights policy than the ILO, human rights protections may yet emerge through trade liberalization.

There are also opportunities to link international environmental law with the laws of human and labor rights and human trafficking. Historically, if humans were considered at all in international and domestic environmental law the focus was solely on protections for health, children, standard of living, cultural dignity, safety, and the pursuit of social and economic development (Birnie et al., 2009, pp. 271–272; Sands et al., 2012, p. 780), and not explicitly on ensuring free labor or preventing trafficking. For many years some have claimed that degraded environments could be seen as a violation of both individual and collective human rights (Birnie et al., 2009, p. 271, also see Fitzmaurice, 2010, p. 623ff). Our bioeconomic model also implies that human rights violations and their affiliated drivers could lead to environmental degradation, and thus a purely environmental approach to fishery policy—one that does not account for human rights protection—may not be enough to ensure the sustainability of fishery resources.

There is much to be done and indeed not a minute to be lost.

APPENDIX: A GLOSSARY OF HUMAN RIGHTS TERMS

Bonded labor or Debt bondage The use of a bond, debt, or other threats of financial harm as a form of coercion for the purpose of forced labor or services or practices similar to slavery or servitude. Some workers inherit debt; others fall victim to traffickers or recruiters who unlawfully exploit an initial debt assumed as a term of employment (USDOS, 2014).

Child labor The International Labor Organization’s (ILO) Website defines “child labor” as “work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development.” This includes work that is “mentally, physically, socially or morally dangerous and harmful to children; and interferes with their schooling by depriving them the opportunity to attend school.” The ILO’s Worst Forms of Child Labor Convention (No. 182) considers a “child” to be any person under the age of 18 (ILO, 1999b).

Forced labor Forced labor, sometimes also referred to as labor trafficking, encompasses the range of activities—recruiting, harboring, transporting, providing, or obtaining—involved when a person uses force or physical threats, psychological coercion, abuse of the legal process, deception, or other coercive means to compel someone to work. Once a person’s labor is exploited by such means, the person’s prior consent to work for an employer is legally irrelevant: the employer is a trafficker and the employee a trafficking victim (USDOS, 2016).

Human rights The rights people are entitled to simply because they are human beings, irrespective of their citizenship, nationality, race, ethnicity, language, gender, etc. This term refers to the UN Universal Declaration of Human Rights which lists 30 articles defining those rights, including that “all humans are born free and equal...have a right to life, liberty and security of person...shall not be held in slavery or servitude...everyone has a right to leave any country...everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment” (UN, 1948).

Human trafficking (trafficking in persons) The act of recruiting, harboring, transporting, providing or obtaining a person for compelled labor or commercial sex through the use

of force, fraud, or coercion (USDOS, 2014). Trafficking victims can include individuals born into servitude, exploited in their hometown, or smuggled to the exploitative situation as well as individuals who previously agreed to work for a trafficker or participated in a crime as a result of being trafficked (USDOS, 2013b). At the core of this issue is the traffickers' intention to exploit or enslave another human being, and the coercive, underhanded practices they engage in to do so (USDOS, 2013b). The international definition set forth by the United Nations (UN) Office on Drugs and Crime (ODC) defines Trafficking in Persons as "the recruitment, transportation, transfer, harboring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation" (UNODC, 2013).

Labor rights Labor rights refer to a broader category of issues than trafficking or modern slavery. The International Labor Organization's (ILO) "Declaration of the Fundamental Principles and Rights at Work" places these rights into core standards: freedom of association, right to collective bargaining, prohibition of forced labor, elimination of the worst forms of child labor, and nondiscrimination in employment (ILO, 1999a,b). ILO has adopted 184 Conventions that establish standards for a range of workplace issues including (but not limited to) Weekly Rest, Forced Labor, Hours of Work, Minimum Wage, Safety and Health, Rights of Rural Workers, Migrant Labor Protections, and Workers' Compensation.

Modern slavery This is a general term often used when referring to holding a person in compelled service, including trafficking, forced labor, involuntary servitude, and bonded labor (USDOS, 2013b).

Smuggling of migrants The United Nations Convention against Transnational Organized Crime defines "smuggling of migrants" as "the procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a State Party of which the person is not a national or a permanent resident" (UN, 2001).

UN Guiding Principles on Business and Human Rights (Ruggie Principles) The United Nations Human Rights Council endorsed a set of Guiding Principles for Business and Human Rights designed to provide a global standard for preventing and addressing the risk of adverse impacts on human rights linked to business activity. They set out, in three pillars, principles concerning the State duty to protect human rights, the corporate responsibility to respect human rights, and access to remedy for victims of human rights abuse. The "corporate responsibility to respect" exists independently of States' abilities or willingness to fulfill their own human rights obligations. The Guiding Principles require that companies have a policy commitment to respect human rights, and proactively take steps to prevent, mitigate and, where appropriate, remediate, their adverse human rights impacts. These Guiding Principles apply to all States and to all business enterprises, both transnational and others, regardless of their size, sector, location, ownership, and structure.

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