

Human rights in a sea of market-based approaches: Evaluation of market-based tools integrating social responsibility in the Sustainable Seafood Movement

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ABSTRACT

Social responsibility in the Sustainable Seafood Movement has accelerated in the past several years, as human rights and labor issues are increasingly being integrated into market-based approaches such as certifications, fishery improvement projects (FIPs), and buyer sourcing commitments. There is skepticism around the ability to adequately address human rights within the context of market-based approaches originally designed for environmental sustainability. Experts have raised concerns about the voluntary nature, reliance on social audits, poor enforcement mechanisms, and limited worker representation of these interventions. Using desk-based research and key informant interviews, this study presents a critical evaluation of the market-based interventions integrating elements of human and labor rights. The overarching purpose of this study is to characterize how various initiatives in the Sustainable Seafood Movement are embedding human rights and social issues, in addition to challenges in doing so, and specific areas for improvement. Results suggest that while certifications can be a useful intervention in establishing a minimum level of compliance for the sector, they require improved accountability systems and continuous, internal monitoring led by workers. The FIP model, requiring continuous reporting of progress over time, could potentially be an alternative to the certification model contingent on the adoption of strong enforcement mechanisms. Finally, buyer sourcing commitments have the potential to hold businesses accountable, but voluntary commitments often lack tangible action, like embedding comprehensive processes of human rights due diligence, to protect fishers and workers. It is critical to address the current limitations of voluntary, market-based approaches and move towards mandatory human rights due diligence, better practices for worker engagement, and stricter mechanisms to ensure accountability.

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1. Introduction

Embedding social responsibility in the Sustainable Seafood Movement has accelerated in the past several years, as elements of human rights and labor issues are increasingly being integrated into market-based approaches such as certifications, fishery improvement projects (FIPs), and buyer sourcing commitments. Social responsibility a term that encompasses a broad spectrum of social issues relevant to global seafood production, including human rights, labor rights, and economic development (Conservation Alliance for Seafood Solutions, 2021a). In practice, it includes diverse initiatives in which fundamental rights are respected, labor rights are protected, benefits are equitably distributed, and safe and decent working conditions are provided for both men and women (Kittinger et al., 2017; Opal, 2018; Teh et al., 2019). The Sustainable

Seafood Movement, initially focused on environmental sustainability, began by conservation non-governmental organizations (NGOs) in response to government inability to regulate and address overfishing in valuable fisheries (Gutiérrez and Morgan, 2015; Konefal, 2013; Roheim et al., 2018). The acceleration of social responsibility in the Sustainable Seafood Movement was primarily precipitated by investigative journalism and media reports commencing in 2014 uncovering widespread labor rights violations, human trafficking, forced labor, and other abuses, even in fisheries and supply chains that were considered sustainable (EJF, 2014; Mason et al., 2015; McDowell et al., 2015). Since 2014, there has been increasing evidence of systemic human rights abuses and labor concerns in the seafood sector. For example, Thailand was known as a hotbed for exploitative labor practices, involving some of the world's leading seafood companies like Thai Union Group PCL (Marschke and Vandergest, 2016). At the time, Thai Union was listed on the Dow Jones Sustainability Indices, a highly regarded metric that evaluates the sustainability of companies (McDowell et al., 2015). In 2019, there were

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allegations of human rights violations occurring in a FIP that was reporting on FisheryProgress (Hogan and Ish, 2021). Then, in 2020, the Marine Stewardship Council (MSC) came under scrutiny following the death and suspected murder of a fisheries observer on a Taiwanese vessel in a certified fishery (Human Rights at Sea, 2020). These events shed light on the shortcomings within the Sustainable Seafood Movement to address the full suite of “sustainability” issues facing fisheries, and further created the impetus to adapt existing approaches to effectively safeguard fishers and workers.

The increasing evidence of abuses and exploitative labor practices led to a shift in the Sustainable Seafood Movement’s objectives from solely focusing on environmental sustainability to addressing social responsibility in seafood supply chains around the world, particularly with market-based approaches. Since the late 1990s, market-based approaches for environmental sustainability have increasingly been embraced by conservation NGOs (Gutiérrez and Morgan, 2015; Konefal, 2013; Roheim et al., 2018). Conservation NGOs and industry actors began developing and implementing a wide array of market-based interventions based on the theory that shifting market demand could generate incentives for more sustainable practices down the supply chain (Jacquet et al., 2010; Kittinger et al., 2021; Murphy et al., 2021). One of the first notable market-based interventions that emerged was the MSC certification that assesses and certifies fisheries against strict environmental criteria. To date, market-based approaches in seafood have multiplied and include certification and rating systems, benchmarking, and verification systems, ecolabels and seafood guides (Jacquet et al., 2010; Roheim et al., 2018; Ross Strategic et al., 2020). Furthermore, the FIP, a multistakeholder initiative to address environmental challenges in fisheries, emerged as a valuable approach, incentivizing producers to work towards certification by awarding access to preferential markets (Barr et al., 2019; Roheim et al., 2018; Sampson et al., 2015). Additionally, large retailers and other major buyers, especially in North America and Europe, are committing to sustainability, and referring to seafood standards to guide their sourcing and purchasing (Kittinger et al., 2021).

As a result of mounting evidence around human and labor rights issues in the seafood sector, in the past several years, social responsibility has become an increasing focus of the Sustainable Seafood Movement and is now being integrated into existing interventions like certifications, FIPs, and buyer sourcing commitments, resulting in the proliferation of new tools (Ross Strategic et al., 2020). In 2017, the Monterey Framework for Social Responsibility was developed to define social responsibility in the sector and align efforts (Kittinger et al., 2017). This framework has since garnered voluntary commitments from over two dozen businesses and is now recognized by the Conservation Alliance for Seafood Solutions in their Common Vision (Conservation Alliance for Seafood Solutions, 2021a).

The Social Responsibility Assessment Tool (SRA), a human rights risk-assessment tool based on the Monterey Framework, was subsequently co-developed by Conservation International and other stakeholders (Conservation International, 2021). Similarly, the Roadmap for Improving Seafood Ethics (RISE), a free online resource to assist companies in their due diligence activities, was recently developed by FishWise to support industry efforts (Roadmap, n.d.). In 2021, FisheryProgress, the hub for verified information on global FIPs, including tracking and monitoring progress, launched its first Human Rights and Social Responsibility Policy, with the objective to reduce the risk and increase transparency of human and labor rights abuses in FIPs reporting on FisheryProgress (FisheryProgress, 2021). The policy requires FIPs to demonstrate several requirements like a self-evaluation of risk criteria and in some cases requires certain FIPs to evaluate human rights risk using the SRA.

Existing and new certification schemes are also increasingly incorporating human rights and other social elements informed by international instruments like International Labor Organization (ILO) Core Conventions and Work in Fishing Convention (C188), the 1946

Universal Declaration of Human Rights (UDHR), the 1966 International Covenant on Civil and Political Rights (ICCPR), and the International Covenant on Economic, Social, and Cultural Rights (ICESCR). Notably, the Fair Trade USA Capture Fisheries Standard was one of the first certifications to support social responsibility, having provisions for the fundamental human rights of fishers and workers involved in the fishery including criteria for discrimination, protection of children, and occupational safety and health (Bailey et al., 2016; Fair Trade USA, 2018; Teh et al., 2019). In 2018, the Seafood Task Force (STF) Code of Conduct was introduced as a voluntary standard applied to entire supply chains of Task Force members. The industry-led STF Code of Conduct has criteria such as child labor, forced labor, employment contracts, freedom of movement, workplace equality, grievance procedures, wages and benefits, working hours, worker training, and health and safety (Seafood Task Force, 2018). In 2020, the NGO-led Responsible Fishing Vessel Standard (RFVS) was launched as the next iteration of SeaFish’s Responsible Fishing Scheme (RFS). The voluntary vessel-based certification “enables commercial fishing operations to provide assurance of decent working conditions and operational best practice through independent, third-party auditing” (Global Seafood Assurances, 2020). The RFVS has been commended for its collaborative and transparent engagement process that included input from industry and NGOs (Kearns, 2020). Another recent example is the industry-led Fairness, Integrity, Safety and Health (FISH) Standard for Crew. The FISH Standard, introduced in 2021, is a voluntary labor certification adapted from C188 for commercial fishing vessels or fleets, to identify and distinguish vessel owners or companies that operate with fair and socially responsible labor practices (FISH SC, 2021).

While the momentum around social responsibility efforts is positive, there is skepticism around the ability and appropriateness of market-based approaches, originally designed for environmental sustainability, to address the full suite of human rights. In particular, human rights experts have criticized current market-based approaches for their over-reliance on ineffective verification and accountability mechanisms in identifying abuses. For example, social audits, specifically third party audits, have emerged as the preferred approach to verify compliance or non-compliance, and to assess and monitor supply chains despite evidence of their failure to identify violations, and ineffectiveness to prevent and remedy violations in other sectors (Outhwaite and Martin-Ortega, 2019). Furthermore, the limited visibility of supply chains (particularly in seafood), lack of transparency, and limited incentives for suppliers, present challenges to fully understand and address the risks and issues present in supply chains (Shift, 2013). Third-party auditors may lack knowledge of the specific industry or local context and conduct audits without adequate protection for workers facing potential retaliation after disclosing information (Decker Sparks et al., 2022; Sinkovics et al., 2016).

Other emerging concerns around market-based approaches include the limited scope and framing of human rights issues in seafood. First, some interventions only address the most visible and severe human rights abuses and labor violations such as human trafficking, forced labor, and child labor with less attention to decent working conditions, living wages, food security, and gender equity (Garcia Lozano et al., 2022). In March 2019, MSC released new requirements for their Chain of Custody (CoC) certification, with criteria for forced labor and child labor in onshore operations (MSC, n.d.). However, the MSC CoC program has been critiqued for its required application only in the case of high country-level risk, failing to identify human rights violations and protect seafood workers working in “lower risk” geographies (Human Rights Watch, 2019).

Critics have also called for greater alignment with human rights due diligence processes as set forward in the United Nations Guiding Principles on Businesses and Human Rights (UNGPs) and for a greater role for seafood workers and their representatives in these processes (Decker Sparks et al., 2022). For example, NGOs, such as Greenpeace, have expressed concern that other interventions like the STF Code of

Conduct, do not meet international labor standards and urged for more comprehensive human rights due diligence processes at the vessel level (Godfrey, 2017). Human rights experts have voiced concerns that voluntary tools prioritize reputational management and lack tangible action towards change such as worker-centric process and remedy for workers (Decker Sparks et al., 2022). In 2021, the Seafood Working Group, a coalition of human rights, labor, and environmental organizations have cautioned buyers and retailers about the FISH Standard indicating it would not be effective in identifying labor abuse onboard vessels as the standard lacks a meaningful role for workers and/or their representatives, represents only a selective application of international standards, and fails to recognize the power imbalance between employers and workers (Seafood Working Group, 2021). Finally, the jurisdictional complexities of seafood supply chains and use of transshipment present key challenges for the effectiveness of market-based approaches like certifications that rely on adequate transparency and traceability (Ridings, 2021).

Social responsibility has become a priority focus within the Sustainable Seafood Movement and there continues to be significant investment and resources being applied to advance market-based approaches. As efforts continue and new market-based interventions emerge, it is imperative to evaluate the potential of approaches to address human rights and labor issues and create meaningful change on the ground. To date, there has been limited scientific research on current social responsibility efforts in the Sustainable Seafood Movement, specifically on how human rights and labor issues are being integrated in the variety of recognized market-based approaches. The overarching purpose of this study is to characterize how various initiatives in the Sustainable Seafood Movement are embedding human rights and social issues, in addition to challenges in doing so, and specific areas for improvement. First, it provides an evaluation of recognized market-based interventions that include criteria for human rights, labor rights, and/or social issues, illustrating the diversity of tools, as well as their alignment with human rights instruments, and other elements like worker representation. Second, a critique of three approaches – certifications, FIPs, and buyer commitments – including their potential and limitations to address human and labor rights concerns in the seafood sector is presented. Finally, shared challenges to advance social responsibility and actions to improve the efficacy of efforts in the Sustainable Seafood Movement are identified.

2. Methods

A desk-based review was conducted to identify the landscape of market-based interventions being used to advance social responsibility in the seafood industry. Publicly available information was reviewed to compile a comprehensive list of interventions. To narrow the scope of inquiry, interventions had to 1) be characterized by generating incentives for supply chain improvements or mobilizing market-focused policy changes, 2) have defined criteria or elements focused on social issues, human rights, labor rights, and/or working conditions, and 3) have information on program, methodology, or protocol that is publicly available. Next, each intervention and its associated protocol was reviewed to determine the type of intervention, scope, referenced human rights instruments and guidance, criteria for worker engagement, processes for grievance reporting and remediation, and compliance and verification (Table 1).

Interventions were categorized by their characteristics which included 1) type of intervention (third-party certification; risk assessment tool; benchmarking tool; online platform; or code of conduct/practice); 2) whether they were NGO-led, industry-led, or both; and 3) scope of the intervention such as small- or medium-scale or industrial fisheries, certain aspects of the supply chain, or subsectors such as processing. The human rights instruments and guidance for each intervention was examined with specific attention to ILO Core Conventions (Freedom of Association and Protection of the Right to Organize Convention, 1948 (C87); Right to Organize and Collective Bargaining

Convention, 1949 (C 98); Forced Labor Convention, 1930 (C29); Abolition of Forced Labor Convention, 1957 (C 105); Minimum Wage Convention, 1973 (C138); Worst Forms of Child Labor Convention, 1999 (C182); Equal Remuneration Convention, 1951 (C100); and Discrimination (Employment and Occupation) Convention, 1958 (C111) (ILO, 1998)); ILO C188; ILO Maritime Labor Convention; UDHR; ICCPR; ICESCR; UN treaties, conventions, and declarations; UNGPs; International Maritime Organization (IMO) Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F) and the Torremolinos International Convention for the Safety of Fishing Vessels; and additional guidance from the FAO. Grievance reporting and remediation processes included 1) mechanisms or procedures to report grievances and 2) any guidance or policies to address reported grievances or any identified human or labor rights violations. Lastly, the stated method or mechanism to verify compliance with standards for interventions was examined, including how regular audits, self-assessments, and other accountability systems are conducted, or whether the intervention was completely voluntary.

Next, semi-structured interviews were conducted with key informants engaged in social responsibility in the Sustainable Seafood Movement. Twenty-four interviews were conducted remotely to accommodate safety and travel concerns of the COVID-19 pandemic. Key informants interviewed included representatives from environmental NGOs, human rights organizations, philanthropic organizations, certification bodies, benchmarking organizations, seafood businesses, trade associations, and consultancies in the United States, Latin America, and Europe. An initial sample of informants was selected and recruited based on existing contacts. This initial sample included individuals from each of the implementing organizations of the interventions identified in the desk-based review. Snowball sampling was then used to identify additional interviewees (Key informant demographics can be found in Supplementary Information). While the demographic composition of our sample shows a significant number of interviewees from environmental NGOs, it should be noted that several of the interviewees from these organizations are human rights or social responsibility experts with formal social science training and experience addressing social issues in seafood. Interviews were conducted until saturation was reached or no new data were found. Interview questions focused on 1) perceptions around current social responsibility efforts, 2) progress and challenges to social responsibility in general, and 3) areas of improvement to advance social responsibility specifically using the most common market-based approaches – certifications, FIPs, and buyer commitments (Interview questions can be found in Supplementary Information). Interviews typically lasted for 60–90 min. IRB approval was obtained from Arizona State University. Interview responses were analyzed using MAXQDA, a qualitative data analysis software. Data was analyzed using grounded theory approach, in which themes and concepts emerge inductively (Corbin and Strauss, 2015).

3. Results

3.1. Market-based interventions for social responsibility

The recent increase in interventions that have incorporated elements of social responsibility in seafood is evident in Table 1. This compilation is comprehensive, although not exhaustive. The variety of interventions are inclusive of small-scale and industrial fleets and post-harvest and onshore operations. There are examples that address specific commodities, like the APR certification (i.e. tuna), and those that are linked to specific suppliers like the Thai Union Vessel Code of Conduct and the STF Vessel Code of Conduct and Auditable Standard.

A review of the human rights instruments and guidance that underpins each tool shows that there is consistency across the tools. ILO C188 has become the primary standard for working conditions in fisheries, and is referenced most widely across interventions, in the criteria of

Table 1
Market-based interventions and their elements related to social responsibility.

Market-based intervention	Characteristics	Referenced human rights instruments & guidance	Worker engagement	Grievance reporting & remediation processes	Compliance & verification
NGO-led <i>Fair Trade USA Capture Fisheries Standard Marine Stewardship Council (MSC) Chain of Custody Standard</i>	Third-party certification program from Fair Trade USA; for small and medium-scale fisheries.	ILO Core Conventions and C188; UN Palermo Protocol.	Limited during audits. Workers are involved in the identification and selection of community issues to address with premium.	Required grievances mechanism; Remediation policy for zero tolerance issues.	Annual third-party audit.
<i>Naturland Sustainable Capture Fishery Standard Responsible Fishing Vessel Standard (RFVS)</i>	Third-party certification program from MSC; applies to companies operating in the supply chain of the certified fishery.	ILO C188, C105, C182, C29; UN Palermo Protocol; UN Slavery Convention; Port State Measures Agreement (PSMA); SA8000; ITUC Global Rights Index; ILAB's List of Goods.	No specific requirements.	No remediation guidance or policy.	Annual audit or self-assessment depending on determined country-level risk.
<i>Friend of the Sea Wild Sustainable Fisheries Standard</i>	Third-party certification program from Naturland; for small-scale producers.	ILO C105 and C182; UN Convention on the Rights of a Child; UN Declaration on the Rights of Indigenous Peoples.	Limited during audits.	No remediation guidance or policy.	Annual third-party audit.
<i>Social Responsibility Assessment Tool (SRA)</i>	Third-party certification program from Global Seafood Assurances (GSA); for any single commercially licensed fishing vessel or fleet.	International Bill of Human Rights; ILO Core Conventions and C188; IMO International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F); Cape Town Agreement; IMO/-ILO/FAO Code of Safety for Fishermen and Fishing Vessels; ISO/IEC 17065:2012 Conformity Assessment; and UK Fishing Safety Management Code; PSMA.	Limited during audits.	Worker voice and grievance processes.	Annual third-party audit.
<i>Seafood Social Risk Tool (SSRT)</i>	Third-party certification program from Friend of the Sea; applies to operations engaged in the wild capture fisheries, regardless of scale or vessel size. Excludes enhanced fisheries.	ILO C138, C95, C155, C154, C29, C111, and the Maritime Labor Convention.	Auditors seek stakeholder input during the certification process, including fisher representatives or fishing associations.	No grievance mechanism requirements or remediation policy.	Annual third-party audit.
<i>On-board Social Accountability (OSA) Technical Framework</i>	Risk assessment tool from Conservation International (CI); for small-scale to industrial fisheries and fleets, and onshore operations if applicable.	Monterey Framework; ILO Core Conventions and C188; UN Convention of the Rights of the Child; UN Declaration on the Rights of Indigenous Peoples; UNGPs; UN Palermo Protocol; UDHR; FAO & WHO Rome Declaration on Nutrition, FAO An Introduction to the Basic Concepts of Food Security.	Recommends worker-driven approach to assessing labor conditions—workers/fishers/farmers and their representative organizations should be involved in the evaluation and in the design of the FIP workplan.	Grievance mechanisms are assessed; All high-risk indicators require immediate attention and remediation channels should be activated if criminal activity is found; In FIPs, remediation processes should be enabled through effective grievance mechanisms.	Does not apply as assessments are voluntary.
<i>Roadmap for Improving Seafood Ethics (RISE)</i>	Risk assessment tool from Monterey Bay Aquarium Seafood Watch, SFP, Liberty Shared; tool covers the full seafood system including fishing and processing.	ILO Core Conventions and C188; UN Palermo Protocol; PSMA.	Does not apply.	Provides a qualified opinion on the risks in the seafood system.	Does not apply.
<i>FisheryProgress Human Rights Code of Conduct (part of the Human Rights and Social Responsibility Policy)</i>	Risk assessment & benchmarking tool from OSA International; applies to commercial vessels.	ILO Core Conventions, C188, C138, C182, and Maritime Labor Convention; SA8000; UNCLOS; FAO Code of Conduct.	No specific requirements.	Grievance mechanism and associated policies assessed.	OSA tracks improvements in social accountability over time.
<i>PAS 1550:2017</i>	Online platform & resource repository from FishWise; intended for companies initiating or continuing human rights due diligence.	UNGPs; ILO Core Conventions and C188; Monterey Framework Pillar 1; Guidance from organizations such as ETI, International Labor Rights Forum (ILRF), SHIFT, and VERITE.	Specific guidance to support worker engagement such as encouraging freedom of association and collective bargaining for workers.	Remediation follows guidance from the UNGPs, ILO General Principles and Operational Guidelines for Fair Recruitment; Migration for Employment Recommendation (R86), C188.	RISE supports mandatory or voluntary due diligence. There is currently no mechanism for compliance.
	Code of conduct from FisheryProgress; applies to all FIPs reporting on FisheryProgress.	ILO C105, C182, and C188; ICCPR, ICESCR; UDHR; UNGPs.	Assessment is conducted in consultation with fisher and their trade unions or organizations, where these exist. If these do not exist, the FIP lead must confirm that fishers or representatives are consulted.	FIPs are required to have a publicly available grievance mechanism. FisheryProgress uses an appeal process to address allegations of forced labor, human trafficking, or child labor.	Annual or 3-year reporting dependent on risk; Risk assessment reports must be publicly available.
	Code of practice from the British Standards Institution (BSI); applies to EU importers, processors, and buyers.	ILO Core Conventions, C188, C81, C122, C129, C144; UNGPs; Modern Slavery Act; PSMA; FAO International Plan of Action to	Guidance for engagement with workers or those affected by working conditions.	Companies should have remediation policies and procedures in place (UNGPs)	Does not apply as the code is voluntary.

Table 1 (continued)

Market-based intervention	Characteristics	Referenced human rights instruments & guidance	Worker engagement	Grievance reporting & remediation processes	Compliance & verification
Industry-led <i>Fairness, Integrity, Safety and Health (FISH) Standard for Crew</i>	Third-party certification program by FISH SC.; applies to all workers onboard a) small vessels (<24 m and/or voyage <3d) or b) large vessels (>24 m and/or voyage >3d).	Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. ILO C188 and guidance R199; UDHR; IMO Torremolinos International Convention for the Safety of Fishing Vessels; IMO International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F).	No specific requirements.	Required grievance mechanism; policies for identified child labor.	Regular third-party audits.
<i>Atun de Pesca Responsable (APR)</i>	Third-party certification program by AENOR; applies only to freezer purse seine tuna vessels.	UNE-195006 standard; ILO C188; RFMO Trade and Catch Documentation Schemes.	No specific requirements.	Corrective action taken by the company to correct violations.	Annual third-party audit.
<i>SSCI At-Sea Operations (ASO) Framework</i>	Benchmarking tool by GSSI, with Consumer Goods Forum (CGF) and Sustainable Supply Chain Initiative (SSCI); covers all wild-capture activities that take place at sea including harvesting, processing, transshipment, and small-scale operations.	ILO Core Conventions and C188; UNGPs; UDHR; FAO Guidance on Social Responsibility in Fisheries and Aquaculture Value Chains; CGF Priority Industry Principles on Forced Labor.	Evaluate mechanism for worker engagement.	Required grievance mechanism.	Does not apply.
<i>Thai Union Vessel Code of Conduct</i>	Code of conduct by Thai Union; applies to all vessels that supply to Thai Union.	ILO Core Conventions, C188, and Maritime Labor Convention; UNGPs; UDHR; RFMO Trade and Catch Documentation Schemes (for Atlantic Tuna).	No specific requirements.	Required grievance procedure; suspension or discontinued purchasing for critical violations.	Annual third-party audit.
Industry & NGO-led <i>Seafood Task Force (STF) Vessel Code of Conduct and Auditable Standard</i>	Code of conduct by STF; applies to the entire supply chain of STF members.	ILO C105, C182, and C188; applicable national labor laws.	No specific requirements.	Required grievance procedure.	Regular third-party audits.

14 of 16 tools excluding Naturland Sustainable Capture Fishery Standard and Friend of the Sea Wild Sustainable Fisheries Standard. ILO Core Conventions are also referenced often in nine of the tools, establishing basic labor rights and protections for workers. In the absence of reference to the full suite of ILO Core Conventions, in tools such as the STF Vessel Code of Conduct and Auditable Standard, there are still specific references to forced labor and child labor conventions – C105 and C182. A very limited number of tools (six) include guidance from the UNGPs, indicating that there may be critical gaps in preventing and addressing human rights risks in business activities across supply chains. Furthermore, there are two certifications that make specific considerations for fisher and vessel safety, the RFVS and the FISH certifications, citing several IMO conventions for safety of vessels and fishers including the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F) and the Torremolinos International Convention for the Safety of Fishing Vessels. Finally, there is very limited reference to instruments related to indigenous rights, food security, or gender. The SRA is one example that includes guidance from the UN Declaration on the Rights of Indigenous Peoples, the FAO & WHO Rome Declaration on Nutrition, and the FAO An Introduction to the Basic Concepts of Food Security.

The involvement and leadership of workers or workers' organizations during the design, implementation, monitoring, and enforcement of social responsibility initiatives, or referred to broadly here as worker engagement, is widely lacking from interventions. For many certifications, which rely on third-party audits, there is limited engagement with workers beyond worker interviews, if any. One exception is the Fair Trade USA Capture Fisheries Standard in which workers are involved in the identification and selection of social improvements to

be addressed with the received premium. The SRA includes specific recommendations for assessors to involve workers throughout the assessment process, as well as the subsequent development of the social workplan if engaged in a FIP. Similarly, FisheryProgress includes guidance in the Human Rights Code of Conduct for fisher engagement in the FIP.

In addition, each instrument's requirements for workers' access to grievance mechanisms was examined. Required grievance mechanisms or procedures were included in the compliance criteria or as part of the assessment indicators for all but three tools – MSC Chain of Custody Standard, Naturland Sustainable Capture Fishery Standard, and Friend of the Sea Wild Sustainable Fisheries Standard. However, fewer tools have requirements for remediation policies if violations are found. These policies would aim to provide remedy to individuals or groups that have been harmed because of business operations or related activities. According to the UNGPs, remedy can include: “apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well the prevention of harm through, for example, injunctions or guarantees of non-repetition” (United Nations, 2011). Thai Union, APR, FISH, and Fair Trade have policies for violations like forced labor or child labor. Roadmap for Improvement Seafood Ethics (RISE) and PAS 1550:2017 refer to the UNGPs for guidance on remediation.

Lastly, compliance or verification is primarily addressed by annual or regular audits. All third-party certifications utilize regular audits to assess whether certificate holders are meeting the program or scheme's criteria. Beyond audits there is limited information available on additional procedures for verification or accountability such as policies related to discontinuation of purchasing if compliance is not met. For

specific interventions such as benchmarking or assessment tools like the SSRT or guidance like RISE, this category didn't apply as they are voluntary and do not include any established agreements.

3.2. Certifications

Certifications constitute the most commonly implemented market-based tool addressing social responsibility in seafood. However, many interviewees emphasized concerns related to certification programs and their ability to effectively address human and labor rights. The primary concern was the audit-based approach that certifications utilize. Audits are conducted by private, accredited certification bodies, in which an auditor determines whether the company, vessels(s), fleet, etc. meets the minimum requirements for certification. One interviewee referred to this approach as “really dangerous from a human rights and labor perspective” (Environmental NGO). Interviewees suggested that audits are not always effective at identifying violations and potential risk. In the audit-based approach, workers often lack the agency and the safeguards to voice their concerns and raise issues in a timely manner, as audits provide information only via a snapshot in time. More so, auditors often lack the specific skills and local expertise to identify risk, particularly within the complexities of work in the seafood sector. In addition, worker representation, or meaningful engagement and consultation with workers in all phases of a project or program, is largely missing in audits. An interviewee emphasized the lack of worker representation and how this contributes to a power imbalance for workers, stating:

An auditor is never going to replace effective worker representation. A lot of the reasons labor abuses occur is because there's an improper power balance between business owners and then the people that they employ. Unless you rectify that, auditing doesn't do that, then you're going to continue to have these issues (Environmental NGO).

While many interviewees referred to criticism around the shortcoming of the audit-based approach to engage workers and enable improvement for workers, a few interviewees offered a different perspective, illuminating the effectiveness of audits as a potential tool. At a minimum, social audits provide a framework for a company to voluntarily set aside resources to address risks in their supply chains, as audits are often used to assess human rights risks and/or compliance with established standards. One interviewee described this saying, “An audit, in my mind, provides the framework for a company to take the time out of their very busy schedule and to set aside dedicated resources to say, “Let's do the due diligence, let's make sure that we are going through the checklist to be the best that we can be in every aspect that we know how to be” (Environmental NGO). Some interviewees expressed, that when done effectively, audits do provide an opportunity to uncover violations. One interviewee provided an example in which it was not until an audit that risks, and violations were identified such as debt bondage and the illegal use of recruiters. In short, problems are likely to be uncovered and more likely to be addressed with an audit versus no audit.

Additional findings from interviews suggest that the certification approach for environmental sustainability is not fit for purpose for social issues such as human rights and labor rights. Unlike environmental sustainability that is measured by defined performance levels, labor violations are not always observable in the same way, particularly on fishing vessels with little oversight. For example, forced labor is not always “visible” via inspections and observation because it nuanced and characterized by the relationship and dynamics between workers and employers (ILO, 2012). An interviewee made a point of this critical difference saying, “It's problematic to try to apply those same approaches in a situation where indicators are simply not observable or measurable in the same way that environmental metrics are. How

do you measure the absence of slavery?” (Philanthropic Organization). More so, situations related to human rights are constantly changing over time on a vessel or in a facility, like workplace dynamics and employees.

Interviewees emphasized the need for seafood businesses to demonstrate a system of accountability, rather than rating operations based on certain levels or standards of performance. Without legally binding agreements and verifiable ways to account for impacts to fishers, workers, observers, or crew, it is difficult to evaluate whether certifications are actually improving working conditions, well-being, or livelihoods.

However, some interviewees also considered certifications to have utility in creating pressure on local governments to improve compliance across their sector. Furthermore, interviews suggested that certifications can institutionalize better sustainability systems within a company. As one interviewee notes, “Certifications can be a tool to institutionalize the sustainability systems and procedures, and mindsets in businesses. That, to me, would be their real claim to fame because that's actually a difficult thing to do,” (Consultant). In a similar way, an interviewee noted that certifications can also lead to the formalization of operations and organization of fishers and workers, which are factors that affect sustainability outcomes.

3.3. Fishery improvement projects (FIPs)

When discussing FIPs, interviewees emphasized a few of the same shortcomings shared with certifications - poor enforcement mechanisms to ensure compliance, a need for more worker representation, and a lack of effective approaches to evaluate social improvement. Even so, FIPs were considered to be a potential innovation space within market-based approaches. FIPs are a multistakeholder initiative that utilize the power of the private sector to address sustainability challenges in the fishery (Conservation Alliance for Seafood Solutions, 2021b). FIPs are designed to drive improvements over time, and at diverse geographic scales or institutional levels - policy, national and international legislative, NGOs, business, fisher associations, and individuals. FIPs are broadly applicable, feasible for a wider range of fisheries like small-scale and medium-scale fisheries, and they are flexible enough to incorporate multiple objectives including the improvement of social issues and human and labor rights. Interviewees indicated that topics related to social responsibility have been a part of FIPs historically, “I think for fishery improvement projects, at least for the smaller scale ones, they have been perhaps thinking about these topics longer, especially in terms of the community aspect, because some of these are community fishery level projects” (Seafood Consortium). Social responsibility in FIPs, however, is a nascent space as requirements to identify potential human rights and labor rights abuses and reduce risk have only recently been established in the new FisheryProgress Human Rights and Social Policy. The new policy is an important signal to the seafood sector, although its effectiveness in addressing human and labor rights will be clearer in time, as the policy is implemented and evaluated.

According to interviewees, the continuous improvement model of FIPs offers a good alternative to the compliance model of certifications, driving incremental and timebound improvements identified during risk assessments of the fishery. One interviewee described the potential of FIPs to improve well-being: “I think that's the crux of where an improvement process comes in, in that it's not a snapshot in time, it's going to be continuous. It's qualitative, it's more in-depth” (Environmental NGO). However, some interviewees did emphasize some concerns with the FIP model in addressing human rights. Currently, the FisheryProgress Human Rights and Social Policy only requires certain FIPs potentially experiencing a higher risk of forced labor and human trafficking to complete a human rights risk assessment. Any high-risk category (i.e., working conditions, child labor) uncovered during the assessment should be prioritized in improvement plans,

but no additional steps or penalties are taken beyond an annual follow-up assessment. Interviewees indicated that the FIP model needs to be better aligned with a mandatory and comprehensive human rights due diligence process to be effective, including ongoing and iterative risk management, and cost sharing across the supply chains or operations.

An additional obstacle identified by some of the interviewees, is that FIPs have been losing their effectiveness to drive improvements because of weakened market incentives. Previously, there was more pressure by market players to address deficiencies and work towards certification, and in cases of poor performance there were tangible penalties such as discontinuation of purchasing. Now, immediate access to preferential markets and lack of pressure to address deficiencies encourages fisheries to stay “forever in a FIP” achieving minimum performance improvement. One interviewee illustrated this challenge saying,

Especially if it's human rights and social, it needs to have some oversight in terms of appropriate actionable items that are time bound that aren't allowed to go on without someone saying, “If you don't do it by this date, I'm stopping. I'm not going to buy the product. When you get back on track, you can come and talk to me, but until then, you're delisted.” That's not happening. That's the main linchpin of all FIPs since the very beginning of FIP-dome and that has disappeared (Seafood Business).

In summary, key informant interviews suggest that the integration of social responsibility in FIPs can be improved by stronger enforcement mechanisms, alignment with comprehensive human rights due diligence, and improved oversight and monitoring progress.

3.4. Buyer sourcing commitments

Buyer sourcing commitments can vary by company or brand, but commonly include a public commitment to sustainable seafood, typically accompanied by comprehensive assessments and/or monitoring of the sustainability of their supply chains, and then put into action via purchasing decisions. Buyer sourcing commitments were overall considered by interviewees to be the least effective of the three approaches, primarily due to their voluntary nature and lack of accountability. However, interviewees emphasized that commitments play an important role in social responsibility efforts, ensuring there are proper market incentives for certifications and FIPs. Results from interviews suggested that buyer commitments can be a strategy to better integrate small-scale fisheries into global seafood markets which otherwise face certain challenges around market access such as production limitations (e.g., smaller volumes), high costs of certifications, and difficulty in meeting minimum requirements for certifications or FIPs. In small-scale fisheries, an end buyer can make long-term sourcing agreements with the fishery and provide the types of support and resources necessary to meet the demands of the retailer. One interviewee described how this strategy addresses the supply-demand challenges that small-scale fisheries face in the global seafood market stating,

I think there's potential for long-term sourcing agreements for some types of small-scale fisheries. I think there's always a little bit of a supply-demand problem. Depending on how much volume a retailer needs if they're willing to invest in some fishery or community for a special type of product and commit to that investment over a long term. I think that agreement can lead to essentially a fairer trading and fairer relationship between a retailer and supplier (Environmental NGO).

In the same way, commitments were proposed as a potential strategy to address particular social risks in supply chains such as responsible recruitment, a key driver of forced labor. An interviewee described

a hypothetical approach in which a company commits to addressing a defined issue such as recruitment and establishes clear time bound actions with a mechanism for tracking their progress. They further discussed how buyer commitments are currently used to address specific environmental issues like IUU fishing and traceability and have shown some success.

Buyer sourcing commitments hold an incredible amount of potential, and power, because buyers carry legal, reputational, and supply risk associated with human rights violations in their supply chains – and therefore, it is in their best interest to meet the expectations and responsibility to mitigate that risk. If a buyer can commit to using human rights due diligence to proactively identify and manage human rights impacts, financially support necessary changes, and reward more responsible products via higher premiums, commitments have significant potential. However, currently there is an overwhelming lack of reporting and accountability across commitments. One interviewee emphasized concerns associated with this saying,

...buyers make commitments all the time, and if they're not verifying it, it's good press but it doesn't make any changes down the supply chain. I think that's really concerning when we think about using this incentive model of market-based commitments. Because the commitment must be meaningful and there must be a level of accountability to that commitment in order for it to make changes. Commitment without tangible change is too common in the seafood industry and there is still a major need for accountability and reporting (Environmental NGO).

One interviewee suggested that, unless verifiable, commitments can be of little value. Interviews further emphasized that commitments must have two key elements: 1) the quality of the commitment or what a company aims to do, and 2) the accountability to make changes, including monitoring and verification, and transparent reporting.

Finally, commitments were cited as an integral market force for effective implementation of certifications and FIPs. Interviewees emphasized that need for commitments to play a larger role in sustainable seafood because change will not occur at scale without buyers committing to social responsibility.

3.5. Challenges to advancing social responsibility in seafood

Interviewees were asked to describe the most critical challenges (one or more) related to advancing social responsibility in seafood production (Fig. 1). Responses were diverse and for conciseness they have been coded and categorized into five overarching categories - implementation, markets, capacity and awareness, seafood sector-specific, and alignment. The full list of responses and their frequency can be found in Supplemental Information: Table SI.1.

The seafood sector faces unique challenges relative to other sectors, due to complexity of global supply chains (seafood is the most widely traded commodity), lack of oversight and transparency particularly for vessels at sea for long periods of time, and the demand for cheap labor as fish stocks and profit margins are squeezed. This category of challenges was the most widely cited by interviewees (35.8%). For example, one interviewee describes the array of factors contributing to complexity of seafood supply chains saying,

That is usually one of the things I see mentioned first and foremost as the reason why in fisheries, they haven't been able to address it because, well, first, you don't see it because it's out far. It's hard to see even what's wrong. It makes it more expensive to enforce it. Of course, you also have jurisdiction issues and a lack of responsibility. There's already a question. It's under that flag. It's in the open seas. The crew is from this country. I think that gives countries a very good

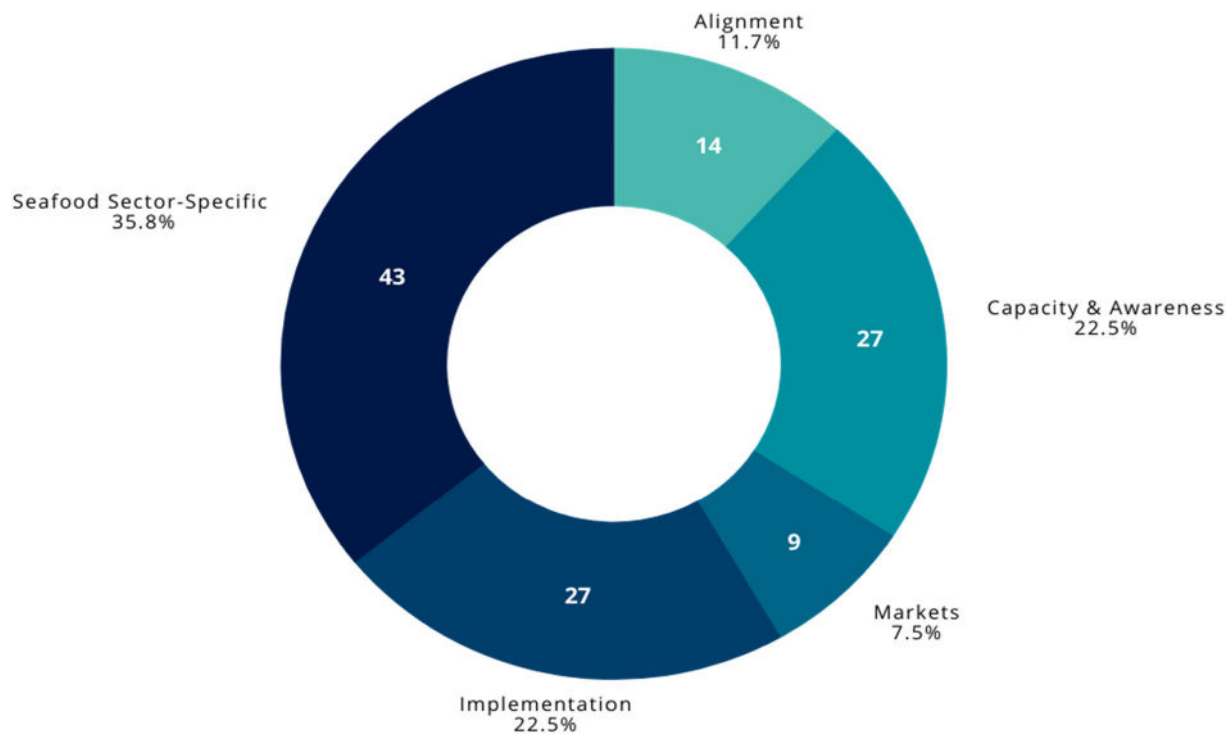


Fig. 1. Challenges to advance social responsibility based on interview responses. The frequency of each response is indicated as a value and a percentage.

excuse to just not meddle and don't bother (Multi-stakeholder Platform).

In addition to complexity, interviewees stressed the issue of transparency as a unique challenge in the seafood sector. "Transparency is still a huge, huge issue. It is not just transparency like traceability, but it's also corporate transparency. I still think that we're in the dark ages on this. Literally, we're in the dark on what's happening within the supply chain" (Environmental NGO). Another challenge, particularly relevant for labor issues, was the industry-wide demand for cheap labor. An interviewee identified this challenge as part of a larger, global issue stating, "...as long as there are people that are poor and starving, there's going to continue to be a pool of cheap labor if you are willing to exploit it" (Environmental NGO).

The second most frequently cited category by interviewees, was that of implementation challenges in social responsibility initiatives (22.5%). The implementation challenges that were of biggest concern to interviewees were the high costs of interventions and limited cost sharing. An interviewee indicated, "We haven't done a good job of really addressing the cost issue and it's the number one challenge" (Environmental NGO). The overall lack of adequate enforcement mechanisms, a necessary element ensuring the efficacy of implemented interventions over time, was also emphasized,

At the end of the day, there are good intentions, very nice people, and with good ideas getting involved. Once you come to the enforcement, it's left on a voluntary basis in order not to push the big businesses so hard. I'm saying that even if we're also champions of human rights due diligence, self-declaration of social responsibility lacks the mechanism and enforcement to enforce the breaches (Trade Union Federation).

Capacity and awareness challenges were also commonly cited (22.5%), including lack of knowledge, skills, competencies, and experience of actors (industry and non-profit) necessary to perform and address social responsibility. Limited or no social expertise, training,

and capacity related to human rights and labor at organizations and businesses was a frequently stated concern during interviews. One interviewee described this challenge in relation to implementing the new Human Rights and Social policy for FIPs saying, "It has been tricky. First, we don't have the profile or the social capacities to implement that tool. We are an environmental NGO, and actually until now, we have just focused on environmental issues" (Environmental NGO). Another pointed out the concerns with limited human rights expertise in the seafood space saying, "It's critical for environmental organizations to partner with labor and human rights organizations when entering the social space, and vice versa. Forging ahead without the necessary consultations and knowledge will undoubtedly lead to negative unintended consequences" (Philanthropic Organization).

Many interviewees cited a lack of alignment within and across NGOs and industry as a major challenge stalling uptake of social responsibility initiatives, including a lack of shared vision, goals, objectives, and collaboration (11.7%). Likewise, the proliferation of tools and duplicative efforts was also regarded as a clear signal of the need for greater alignment. One described this challenge particularly in the NGO space saying,

To what you said at the beginning about the NGOs struggling to come together and do that because of the way they've been pitted against each other for the same funding sources, now fishing in the same pool, and now they all have their own tools, and they need to promote them. It's created a place where that is really challenging (Consultant).

Finally, interviewees cited market challenges related to global markets in general, including supply, demand, and purchasing dynamics, and specific issues related to businesses, buyers, and retailers (7.5%). Industry fatigue was the most frequently stated reason for market challenges:

The only thing I would say is that I think companies are tired of talking. It's like they've been trying to figure out this social

responsibility issue for a while now, and although some progress has been made, not enough, and NGOs, they keep banging the drum. I think companies are just tired of not having the right answer and struggling. I do worry about industry fatigue, and I don't have an answer for how to fix that (Environmental NGO).

In addition, issues around the profit-driven purchasing model were raised as it exacerbates human rights issues. This challenge was described simply by one interviewee, “the whole business model is built around this drive for short-term profits, at the expense of all other concerns, and this both encourages and ensures labor and environmental abuses” (Philanthropic Organization).

3.6. Improving the efficacy of social responsibility efforts

Following a discussion on challenges to advance social responsibility, interviewees were asked to describe specific actions or enabling conditions to improve the efficacy of social responsibility initiatives in seafood (Fig. 2). Responses again were coded and categorized into five overarching categories – effective implementation, industry leadership, developing capacity and awareness, addressing seafood supply-chain dynamics, and driving alignment. The full list of responses and their frequency can be found in Supplemental Information: Table SI.2.

More stringent requirements for effective implementation was the most commonly stated priority (46.3 %). Interviewees cited the need for more stringent requirements related to policy and regulation, guidance and tools, and approaches such as worker-driven approaches. Embracing a multi stakeholder approach was the most often cited in this category, and one that works alongside law enforcement and government. One interviewee describes this potential approach:

I would love to see a multi-stakeholder approach working with law enforcement, governments, and businesses. A multi-stakeholder group to come up and say what are we doing here? We need businesses to weigh in because they are the actors that– and is it a law enforcement approach? You know what, we just need to make an example of somebody, send them to jail for 20 years and all of a

sudden everybody's going to wake up and be like, “Wow, they're taking this seriously.” Maybe that's the approach (Environmental NGO).

Many also identified trade-related restrictions or import policies as effective strategies. One interviewee gave an example for Mexico and the United States saying:

I think one of the more effective, at least from what I see in Mexico, one of the more effective ones are import rules. Buyers or traders will respond to whatever, the EU or the US or Japan, the countries that pay high top dollar for seafood, what their requirements are. These laws make it illegal to import into the US products with human rights violations (Environmental NGO).

Addressing supply chain dynamics was the second most cited category (19.5 %) to improve the integration of social responsibility, including conditions of labor and employment, enforcement, standards, and transparency. Improving worker voice, or workers' access and ability to voice concerns or issues in the workplace, including reporting mechanisms and worker empowerment tools, was most discussed as a constructive way of addressing supply chain dynamics. One interviewee stated, “If you want to know what's happening with workers, you have to ask the workers themselves and not in an extractive way where you're just getting information, and not doing anything about it” (Consultant). Similarly, empowering workers as a means to address power imbalances between employers and workers was also emphasized although there is uncertainty around what this practice should entail. One participant stated, “I think there should probably be more emphasis on empowering workers. I think in practice, people don't really even know what that means or how to do it.

Developing capacity and awareness, specifically improving the knowledge, skills, and competencies, and experience of actors to implement social responsibility received slightly less attention (12.2 %) even though interviewees cited limited or no social expertise, training, and capacity as a major challenge in the former question (22.5 %). Interviewees stated that both NGOs and businesses needed to improve

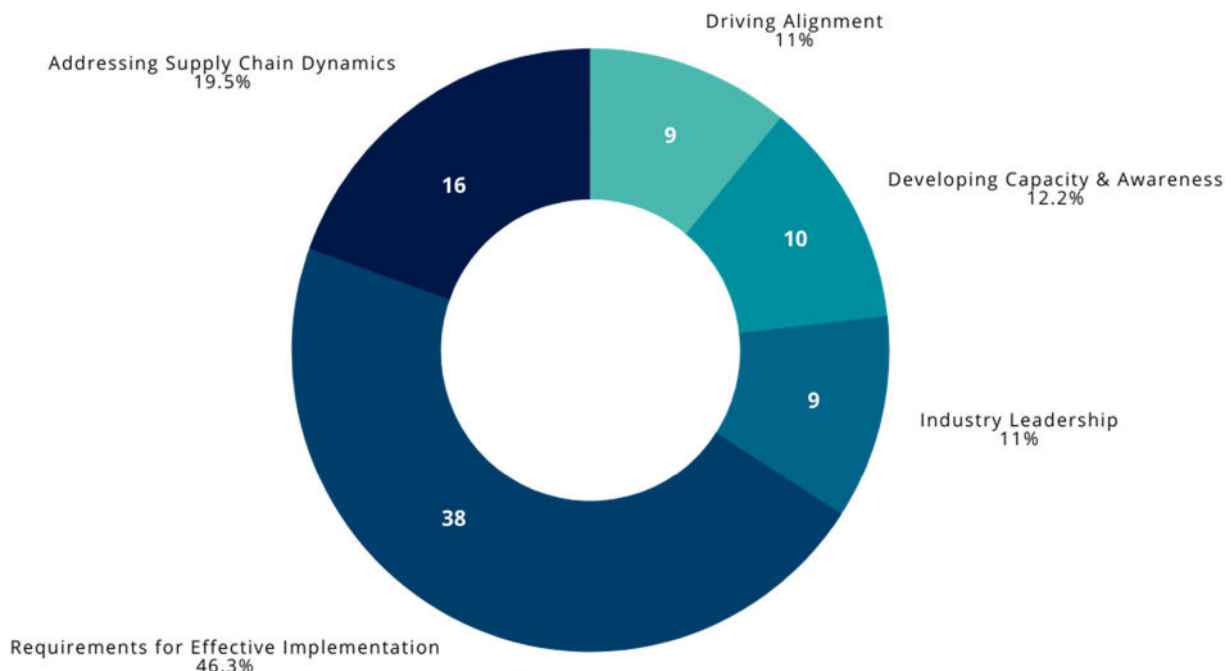


Fig. 2. Actions or enabling conditions to improve the efficacy of social responsibility based on interviewee responses. The frequency of each response is indicated as a value and a percentage.

their understanding of each other's practices. In addition, there needs to be more efforts to educate fishers and workers on their rights. One interviewee stated, "if we just start with fishers, for example, "These are your rights, you must demand this" (Environmental NGO). Another pointed out how critical this was regarding being heard and making demands saying, "Just like you or I, we need to know our rights in order to claim them and we want to be listened to through a democratic process" (Environmental NGO).

Interviewees discussed the importance of strong industry leadership (11 %) to overcome challenges, with a focus on seafood companies, buyers, and retailers specifically. Interviewees discussed the need for a "safe space" for leadership and innovation. They also mentioned the need for new leaders driving forward social responsibility in the seafood industry. One described the need for new blood saying, "I feel like it's that way, we've got this old guard and we need some new blood" (Seafood Business). Another interviewee reiterated this need saying, "A lot of the CEOs, a lot of the senior people have been in the business 30 years, and they do things the same way they have...the industry needs to move being dragged into the 21st century" (Environmental NGO).

Finally, driving alignment across the space was offered as a tangible way forward by interviewees (11 %), included improvements related to collective action, shared vision and goals, and collaboration. Increasing dialogue between actors was considered a priority. One simply stated, "I think some dialogue is certainly taking place, but I think there needs to be more" (Environmental NGO). Another interviewee called for more than just dialogue, emphasizing the need for more trust and support, particularly between environmental NGOs and human rights organizations. They said, "There's a lot of work to do to build trust, I think, between those two different communities. I think there is even more work to do to demonstrate that environmental NGOs need that support. They need that consultation" (Consultant).

4. Discussion

Social responsibility in the Sustainable Seafood Movement is nascent, yet increasingly becoming a core element of market-based initiatives. However, market-based interventions are being developed and implemented without evaluation of their effectiveness and suitability to address these complex issues. As social responsibility efforts advance it is critical to understand the adequacy of existing approaches, the limitations, and the areas in need of improvement to ensure that the rights of fishers and workers are upheld and protected. This study provides a timely examination of market-based approaches as an increasingly adopted strategy to address human rights. Our analysis shows that market-based interventions for social responsibility are diverse, and abundant, but are only *one* strategy of addressing human rights and labor rights in the seafood sector, alongside policy and legislation or community development. Market-based interventions are only one tool in the toolbox yet may increasingly play a critical role in advancing social responsibility at scale and at pace. Our review of existing initiatives in addition to interviews with key informants suggests that market-based approaches such as certifications, FIPs, and buyer sourcing commitments should continue to evolve and improve. Based on our high-level findings, we discuss specific opportunities for improvement including, the need to increase the scope of existing initiatives to consider the full suite of human rights issues diverse fisheries face; meaningful involvement of fishers and workers in social responsibility initiatives; legally binding and mandatory enforcement and accountability mechanisms; and greater alignment across environmental and human rights NGOs, and with industry, thus enhancing capacity.

The proliferation of interventions and efforts around social responsibility is evident in Table 1. While the interventions analyzed here are by no means exhaustive, the interventions identified can be applied to the majority of fisheries operations at-sea and onshore in small-scale and industrial fisheries. It is critical that there are options to address the

latitude of fisheries operations, given the diversity and complexity of the seafood sector. Even so, with existing approaches, there tends to be a stronger focus on fishers and workers on vessels, potentially leaving gaps in protections for onshore workers, particularly women (Finkbeiner et al., 2021). In the same way, there is disproportionate attention to the most visible and severe human rights violations onboard vessels such as forced labor and child labor (Teh et al., 2019). Few tools include criteria for economic, social, and cultural (ESC) rights such as food and livelihood security. While it is important to address the most salient human rights risks, there is limited criteria and guidance to address all risks and even root causes of abuses and exploitative work practices (Garcia Lozano et al., 2022; Lout et al., 2022). While there is ambition within the movement to better address these issues, there is poor consensus on how to address ESC rights and there is a need to improve the sectors' understanding of and how they align with broader sustainability objectives. Future research should focus specifically on how ESC rights are being integrated into broader seafood sustainability objectives and how they can be more adequately addressed.

The importance of meaningful worker representation in social responsibility efforts has received increasing attention in the past few years with experts drawing attention to the lack of representation in current initiatives (ILRF, 2018). Certifications have been central to criticisms related to worker representation due to their reliance on audits as the main approach to assess and mitigate human rights violations in supply chains (Nakamura et al., 2022). These concerns, which were reiterated in this study, have led to new approaches and models that place workers at the forefront of social responsibility activities. One notable example is the Worker-Driven Social Responsibility (WSR) in which worker organizations lead the design, monitoring, and enforcement of interventions that impact their conditions at work (Decker Sparks et al., 2022; Worker-Driven Social Responsibility Network, 2022). In 2011, the Fair Food Program (FFP) was launched across the Florida tomato industry, becoming the first fully operational WSR model (The Fair Food Program, 2022; Worker-Driven Social Responsibility Network, 2022). The FFP utilizes the purchasing power of retailers to enforce compliance with "the most progressive labor standards" in the US agriculture industry (Worker-Driven Social Responsibility Network, 2022). The FFP model also includes worker-to-worker education on labor rights, a worker-driven complaint resolution mechanism or grievance mechanism, and a health and safety committee for each farm ensuring workers have a voice in improving their conditions at work.

In the seafood sector, the International Labor Rights Forum (ILRF) developed the four "Essential Elements of Effective Social Responsibility" built on the WSR model and lessons learned (ILRF, 2018). Elements for effective human rights compliance are 1) genuine worker representation, 2) comprehensive and transparent risk assessment and verification of workplace compliance, 3) legally binding enforceable agreements, and 4) changes to brand purchasing practices. In 2016, ILRF launched the Independent Monitoring at Sea project, or IM@Sea, integrating the Essential Elements in the project's design and implementation (ILRF, 2018). The IM@Sea project utilized technology systems to enable effective worker-driven monitoring at sea onboard Thai fishing vessels. This project was pivotal demonstrating how worker-driven monitoring and worker-driven grievance mechanisms can operate on vessels. The WSR model or the Essential Elements are just two examples of approaches for worker representation, and it was emphasized that this can come in many different forms. Adopting WSR can contribute to more effective human rights due diligence and multistakeholder initiatives - two key solutions identified by interviewees to advance social responsibility, by empowering workers, or rights holders, as central actors (McCorquodale and Nolan, 2021; MSI Integrity, 2020). Regardless of how worker representation is approached, there needs to be stronger demand for meaningful representation to improve the efficacy of current approaches, and meaningfully improve the living and working conditions of fishers and workers

on the ground. More so, if audits continue to be a widely utilized tool, how can they be effectively paired with true worker-driven approaches? It is important to point out that workers and/or their representative organizations were not interviewed in this study as it was focused primarily on implementors, however, workers play a crucial role in our understanding of supply chains, working conditions, and the effectiveness of approaches and therefore, should be the focus on future research.

In WSR and similar approaches, buyers must sign legally binding agreements with worker organizations, establishing standards for business compliance and penalties for violations (ILRF, 2018; *Worker-Driven Social Responsibility Network*, 2022). However, this practice is still lacking in the seafood sector. Interviewees were outspoken about the dangers of poor enforcement mechanisms, or none at all. Without strong disincentives or penalties to comply, there is no way to address bad actors and poor compliance. This critical requirement was emphasized as a need across certifications, FIPs, and buyer commitments. Self-declaration of social responsibility or voluntary measures are not sufficient without consistent reporting, monitoring, and enforcement. This year's Social Transformation Baseline Assessment by the World Benchmark Alliance had stark findings on global companies' tangible progress to protect and respect human rights. The assessment evaluates 1000 of the world's most influential companies on 18 social indicators including living wage and gender equality. The assessment, which included some of the largest seafood companies in the world such as Mowi and Thai Union Group, found that more than three quarters (78 %) of the 1000 companies evaluated scored zero on indicators for human rights due diligence (*World Benchmark Alliance*, 2022). Furthermore, more than half (55 %) of the companies have made public commitments to respect human rights, with few making tangible steps, such as due diligence, to protect workers. Mowi, for example, has made a public commitment to respect human rights of workers, but has not met any further human rights due diligence requirements. Thai Union Group scored 14 out of 20, making progress identifying and addressing human rights issues. However, they did not meet criteria for disclosing results of human rights assessments or actions taken to address identified human rights issues. These findings emphasized the limitations of market-based, voluntary approaches and the need to move towards mandatory requirements and improved accountability systems.

Moving towards a more *responsible* seafood movement that is inclusive of social elements such as human and labor rights and broader social objectives such as economic development will require collective action and continued commitment from all actors. Building the capacity, knowledge, and skills related to human and labor rights at organizations and businesses is paramount, as it is one of the biggest challenges to advance social responsibility. Training and education on human and labor rights, their relationship with environmental sustainability, and tools and resources available to the sector is a key first step. There is opportunity for cross-organization or cross-sector engagement in learning exchanges or workshops to improve awareness of how human rights are currently addressed by various actors. More so, human rights organizations' expertise can not only play a fundamental role in building capacity within conservation NGOs and industry, but also lead efforts including the development of effective tools. There has already been a growing demand for consultants with human rights expertise indicating a recognition of the need for more specific knowledge and specialized skills. Finally, there needs to be space for new leaders and innovation; the movement should make space for diverse experts, novel collaborations, and new approaches learning from other sectors or commodities that are more established in their social responsibility journey. Especially within industry, there needs to be more space for leadership and innovation, as well as room for trial and error and lessons learned. Refining what social responsibility is and how it should be approached in the seafood sector to transition from a reactive approach to transformational change is a long-term process and

one that will continue to require humility and the willingness to adapt and evolve.

5. Conclusion

As social responsibility efforts accelerate in the Sustainable Seafood Movement it is imperative to ensure that interventions are effective, as human rights experts have voiced their concerns of the limitations and shortcomings of market-based approaches. This evaluation of market-based approaches seeking to embed social responsibility identified areas of improvement for certifications, FIPs, and buyer sourcing commitments, especially proper enforcement mechanisms and worker representation. Even so, market-based approaches can play an important, necessary role to identify and prevent human rights violations. We are transitioning to a more responsible seafood movement, but it is urgent to address the current limitations of voluntary, market-based approaches and move towards mandatory human rights due diligence, better practices for worker engagement, and stricter mechanisms to ensure accountability. The movement has taken important steps towards addressing human rights in the seafood sector, but there has yet to be a champion for responsible seafood, establishing a standard for the entire seafood industry to reach. Looking forward, the movement must build the capacity to effectively address human and labor rights, continue to evaluate, and adapt approaches and create a safe space for leadership to advance social responsibility, protecting the rights of fishers and workers globally.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

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