



CHAPTER TWENTY

SEA SLAVERY:

IMPLEMENTING AN INTEGRATED DISSUASION STRATEGY

Anny Barlow

The change makers [people making social change in the world] are variable, and making sure you know that there are multiple targets [change makers] that can be accessed, then collectively, you can get that boulder rolling.

— Ian Urbina, September 13, 2022

Abstract

Forced labor, often termed “sea slavery,” lurks beneath the surface of the global fishing industry, inflicting widespread harm on human rights, environmental sustainability, and global food security. This chapter introduces an innovative *Integrated Dissuasion Strategy* inspired by the teamwork of Marvel’s Avengers, which unites experts across disciplines to tackle the crisis. By using economic, legal, technological, diplomatic, and community-based tools, this strategy aims to disrupt the financial incentives for forced labor, enhance accountability through technology, and empower local communities to take an active role in enforcement. The chapter explores the global impact of forced labor in fishing, its root causes and enabling systems, and proposes a transdisciplinary task force to deliver real change. Through this collaborative and comprehensive approach, the strategy charts a course toward a more just and sustainable maritime future—one that respects human rights and protects the oceans.

Introduction

The vastness of our oceans, once teeming with life and promise, now harbors a dark secret: the pervasive and brutal exploitation of forced

labor, often termed “sea slavery.” This hidden crisis inflicts devastating consequences on human rights, environmental sustainability, and food security—ranging from abuse and degradation to economic instability and the undermining of global food systems. The plight of sea slaves, hidden from view on distant vessels, underscores the urgent need for innovative solutions to combat this complex problem.

To address this multifaceted problem, this chapter proposes a novel approach akin to the collaborative power of Marvel Comics’ Avengers Team: an *integrated dissuasion strategy*. Just as the Avengers unite their unique superpowers to confront threats beyond the capabilities of any single hero, the integrated dissuasion strategy harnesses the collective competencies of diverse stakeholders and tools to dismantle the systems that enable sea slavery. Conceptually inspired by integrated deterrence principles commonly used in defense strategies, this approach emphasizes using all available tools—economic, legal, technological, diplomatic, and community-based—to discourage and prevent unwanted behavior. Specifically tailored to the unique challenges of the fishing industry, the strategy focuses on disrupting the economic incentives for forced labor, enhancing accountability through technology, fostering international collaboration, and empowering local communities to play an active role in enforcement and self-determination.

This chapter will first explore the global impact of forced labor in fishing, investigating its economic, environmental, and social consequences. It will then analyze the root causes and enabling systems of this exploitation, examining both micro-level and macro-level factors that contribute to the problem. By critically examining diverse perspectives from various professional backgrounds—from food security and economic stability to environmental sustainability and social justice—this research aims to illuminate novel opportunities for combating this issue.¹ Key findings from this research emphasize the importance of strategic collaboration and

interdisciplinary problem characterization for effective governance, increased awareness, and enhanced capacity building.²

Finally, this chapter will unveil the core of the integrated dissuasion strategy: the proposed formation of transdisciplinary task forces mirroring the Avengers' collaborative model. These task forces, comprised of diverse professionals—our “superheroes”—will leverage their unique skills and expertise—their “superpowers” to bridge knowledge gaps, address systemic barriers, and implement innovative solutions. Through examples of successful integrated efforts and a proposed global network of these task forces, we will demonstrate the potential to overcome barriers, drive impactful change, and contribute to a future where our oceans are characterized by security, equity, and sustainability.³

The Global Impact of Forced Labor in Fishing

The fishing industry is not merely an economic sector; it is a lifeline. Providing livelihoods for millions worldwide and contributing significantly to global food security, this industry employs nearly 60 million people and generates an estimated \$164 billion annually.⁴ Seafood represents a vital source of protein for a significant portion of the global population, accounting for roughly 17% of animal protein consumed globally.⁵ In some communities, it constitutes over 50% of their dietary protein intake.⁶ This makes the industry a cornerstone of global food systems, providing essential nutrition and driving economic growth, particularly in coastal communities and developing nations.

A Crisis of Exploitation:

The Dark Underbelly of the Fishing Industry

Beneath the surface of this vital industry lies a sinister reality: forced labor, or “sea slavery,” where the International Labour Organization (ILO) estimates that a staggering 128,000 fishers are trapped in abhorrent conditions, enduring abuse, violence, and exploitation.⁷

Lured by false promises of decent work and wages, individuals—often from marginalized and vulnerable communities—find themselves imprisoned on fishing vessels, stripped of their freedom and fundamental human rights.

This practice casts a long shadow, with devastating consequences for global supply chains, food security, economic stability, environmental sustainability, and human well-being. Forced labor in fishing is not just a moral outrage; it is a systemic problem with far-reaching repercussions. The exploitation of fishers through forced labor and its often-associated counterpart—illegal, unreported, and unregulated (IUU) fishing—inflict significant damage, with IUU fishing alone estimated to steal up to an astounding \$23 billion annually from the global economy.⁸ This illicit activity undercuts legitimate fishing operations, deprives governments of revenue, and jeopardizes the livelihoods of millions dependent on healthy and sustainable fisheries.

Coastal communities, where fishing is often a primary source of income and food, bear the brunt of this economic devastation. Forced labor and IUU fishing deplete fish stocks, disrupt markets, and siphon off revenue, exploiting impoverished communities and fueling social injustice. This situation is especially devastating in places like Southeast Asia, where more than 200 million people depend on the fishing industry, as it further deepens existing inequalities and social vulnerabilities.

The environmental consequences are equally dire. Unsustainable fishing practices exploit marine resources and cause habitat degradation, imperiling entire ecosystems and threatening the delicate balance of the ocean's biodiversity—intricately connected to its role as a carbon sink. Climate change exacerbates this environmental degradation, jeopardizing the livelihoods of coastal communities and the planet's health.

*The Case of Supriyanto:
A Human Tragedy Unveiled*

The domino effects of forced labor in offshore commercial fisheries are difficult to fully grasp without understanding the lived experiences of those trapped within the system.⁹ The tragic story of Supriyanto, an Indonesian fisherman, is a harrowing illustration of the human cost of these exploitative practices.¹⁰

Supriyanto, like many others, was lured to the sea by the promise of a better life for himself and his family. Following the success of one fishing stint, he accepted a second opportunity to continue providing for his loved ones. However, his dream swiftly turned into a nightmare. This second contract promised a monthly wage of \$350, but upon boarding a Taiwanese longliner, Supriyanto learned that \$100 would be withheld each month, ostensibly as a security deposit against absconding. This was in addition to a series of unfounded fees gradually levied upon him. In his first two months of grueling labor, he received a mere \$100 in total.

The exploitation did not end there. Photographic and video evidence revealed horrific physical abuse inflicted upon Supriyanto by the captain and crew. These abuses ultimately led to his tragic death onboard the vessel a mere four months into his employment. His withheld wages never reached his family, who were left grieving for their loved ones while grappling with the financial hardships that followed.

Supriyanto's story is not unique. Many fishers are subjected to similar cycles of deception, exploitation, and abuse. The promises of decent wages and steady employment turn out to be empty, replaced by a grim reality of forced labor, violence, and deprivation.¹¹ Fishers are forced to work grueling hours under hazardous conditions, often with little to no rest or compensation.¹² They endure physical and verbal abuse and deprivation of food and water and are sometimes even coerced into taking drugs to enhance

productivity.¹³ In the worst cases, as in Supriyanto's, they may lose their lives.

The consequences of sea slavery extend far beyond the individual victims. Families are left without their primary breadwinners, communities are deprived of vital economic contributions, and the psychological trauma inflicted on survivors can have lasting effects. The ripple effects of this exploitation reach far beyond the fishing vessel, impacting entire communities and contributing to cycles of poverty and inequality.

Supriyanto's story tragically reminds us of the urgent need for a multifaceted approach to combating forced labor in the fishing industry. It is a call to action for governments, industry stakeholders, and civil society to work together to dismantle the systems perpetuating this human rights abuse.

Blurred Lines and Interconnected Challenges

The challenges of forced labor in fishing are not isolated; they are intricately linked to other transnational crimes. Forced labor operations often rely on organized criminal networks involved in human trafficking, drug smuggling, small arms trafficking, and other illicit activities.¹⁴ These networks exploit the vulnerabilities of marginalized populations, perpetuate human rights abuses, and undermine the rule of law.

Moreover, the lines between forced labor and IUU fishing are often blurred. While legally distinct, these two issues are frequently conflated due to their intertwined nature, operating within the same shadowy operational environment and exacerbating each other's harmful impacts. This interconnectedness presents a significant challenge for governance and enforcement efforts, as each issue is governed by separate legal definitions, regulations, and policies.

For instance, as Greg Poling, Director of the Southeast Asia Program and Asia Maritime Transparency Initiative at the Center

for Strategic and International Studies, aptly pointed out, “You get fined for illegally fishing; you get arrested for modern-day slavery.”¹⁵ This highlights the disparity in how these issues are addressed despite their frequent co-occurrence. While the U.S. Congress recently updated the legal definition of IUU fishing to include forced labor,¹⁶ this change is not universally recognized and does not alter existing international laws.

Therefore, a collaborative, multidisciplinary approach is crucial to effectively address these interconnected challenges. By recognizing the complex interplay between forced labor, IUU fishing, and broader socioeconomic factors, we can develop integrated solutions that target the root causes and enabling systems of exploitation and promote a more just and sustainable fishing industry. Fragmented efforts must be replaced with a holistic strategy that leverages all available tools—economic, legal, technological, and social—to effectively combat forced labor in fishing. The integrated dissuasion approach, which we will explore in depth in the following sections, offers a promising framework for achieving this goal.

Strategic Economic Pressure: Disrupting the Profitability of Forced Labor

The persistence of forced labor in the commercial fishing industry is rooted in a complex web of economic factors that create fertile ground for exploitation. We must first understand the economic forces at play to unravel this web and dismantle the systems that perpetuate it.

Micro-Level Factors: A Race to the Bottom

At the heart of the issue are the harsh realities individual fishing vessels face. The “race to the bottom” drives overfishing and a decline in fish stocks exacerbated by the instability of our climate.¹⁷

To maintain their catch, vessels must venture farther, confront harsher conditions, and stay out longer, resulting in soaring operational costs and squeezed profit margins. Labor rights are compromised to cut costs, including slashed wages, neglected safety measures, and inhumane working conditions.¹⁸

The relentless climb in fuel prices intensifies this downward spiral. As the lifeblood of fishing vessels becomes increasingly expensive, profit margins dwindle, and the temptation to exploit labor intensifies. The need to pay for fuel becomes a perverse justification for underpaying or even enslaving workers, perpetuating a vicious cycle where human suffering fuels the industry's unsustainable practices.

Labor shortages further compound these pressures. The demanding and often dangerous nature of fishing work has made attracting and retaining skilled crew members increasingly tricky. This scarcity of labor creates an environment where unscrupulous recruiters can prey on vulnerable individuals, luring them with false promises of decent wages and working conditions, only to trap them in a cycle of debt bondage and exploitation.¹⁹

*Macro-Level Forces:
A Global Hunger for Seafood*

While these micro-level pressures create a breeding ground for exploitation at the vessel level, they are amplified and perpetuated by larger economic forces that operate on a global scale. While sustaining the industry and providing livelihoods for millions, the world's insatiable appetite for seafood also looms large.²⁰ This ever-growing demand puts immense pressure on the industry to increase production, often at the expense of ethical labor practices. As companies compete to meet this demand, labor costs are frequently the first casualty. Companies undercut each other on price by slashing wages, ignoring safety regulations, and turning a blind eye to forced labor.

The intricate and often opaque nature of global seafood supply chains further exacerbates the problem. Fish caught in one corner of the world can be processed, packaged, and sold thousands of miles away, obscuring their origins and making it difficult to trace their journey from sea to plate. This lack of transparency allows forced labor to thrive in the shadows, hidden from consumers' and regulators' scrutiny, leading to a lack of accountability. Fish become commodities, detached from the human cost of their production.

Furthermore, the high potential for profit in the fishing industry and the low risk of accountability for labor violations create a perverse incentive structure that rewards exploitation. In many parts of the world, weak enforcement and lax regulations mean that the cost of doing business ethically can seem prohibitively high compared to the potential profits from forced labor. This creates a moral hazard, incentivizing companies to cut corners on labor standards to maximize their bottom line. The risk to perpetrators' profitability must be increased by making it bad for businesses to engage in bad behavior.

Tools for Disrupting Business Continuity

To break the cycle of exploitation, the integrated dissuasion strategy deploys a range of economic tools aimed at disrupting the low-risk, high-reward financial incentives that drive forced labor. One potent lever is the imposition of sanctions and market restrictions. Governments and international bodies can wield this tool to target vessels and companies implicated in forced labor, barring them from accessing lucrative markets and inflicting significant financial penalties. A prime example of this approach is the European Union's (EU) 2015 threat to Thailand, a major seafood exporter. Facing the prospect of a "red card," which would effectively halt their seafood exports to the EU market, Thai authorities were compelled to enact sweeping reforms to their fishery laws, showcasing the power of economic leverage to effect change at the national level.²¹

Legal and compliance pressures can also create significant financial disincentives for bad actors. Utilizing existing legal frameworks, such as the U.S. Tariff Act's Withhold Release Orders (WROs), can block the importation of goods suspected of being produced with forced labor while an investigation is launched, effectively shutting down revenue streams for exploitative companies. In addition, investigations by financial authorities into illicit financial flows associated with forced labor expose and disrupt the intricate networks that sustain these practices, making it harder for bad actors to profit from their crimes. However, legal and compliance pressure hinges on the increased capacity of security personnel to hold bad actors accountable.

Finally, we would be remiss not to address the ineffective economic lever that misguides consumers into believing they have power through their wallets. Research indicates that this approach undermines efforts to end exploitative labor practices, creating opportunities for greenwashing and providing a false sense of consumer empowerment. So-called "eco-labels" and sustainable certifications often serve as better marketing tools than labor protection tools, obscuring exploitation and allowing it to persist.²²

Challenges and Solutions:

Navigating the Complexities of Economic Dissuasion

While strategic economic pressure offers a potent weapon against forced labor in the fishing industry, its effective implementation is far from straightforward. It demands careful navigation through a complex landscape of political, economic, and social realities. From securing the political will necessary for enforcement to ensuring that sanctions do not inadvertently harm vulnerable communities, the path to a just and sustainable fishing industry is paved with challenges. However, by understanding these hurdles and proactively seeking solutions, we can harness the power of economic pressure to dismantle the systems that perpetuate sea slavery.

One of the primary obstacles is the lack of political will to build enforcement capacity, particularly in developing nations where forced labor is most prevalent. Governments may be reluctant to act against powerful fishing interests or lack the resources and infrastructure to effectively monitor and enforce labor laws at sea. This gap between policy and practice can undermine the impact of economic measures and allow exploitative practices to persist.

Overcoming this challenge is two-fold. First, international cooperation and capacity-building efforts are crucial. By sharing best practices, providing technical assistance, and fostering collaboration between nations, we can strengthen the ability of governments to enforce labor standards and hold bad actors accountable. Second, public awareness campaigns are crucial in applying pressure on our governing leaders, ensuring they prioritize resource allocation and take concrete steps. As U.S. President Franklin D. Roosevelt said, “I agree with you, I want to do it, now make me do it.”²³ Even when leaders support reform, they often need public demand to act with urgency.

The global seafood industry poses another significant challenge with its intricate and often opaque supply chains. Fish caught in one part of the world can be processed, packaged, and sold thousands of miles away, making it difficult to trace their origins and verify that they were harvested ethically. This lack of transparency allows forced labor to thrive in the shadows, hidden from the scrutiny of consumers and regulators.

To tackle this issue, we need to invest in technological solutions that enhance transparency and traceability, thereby enhancing accountability. Blockchain technology, for example, can create immutable records of transactions that track the movement of fish from the point of capture to the point of sale. Once adopted as an industry norm, this technology will incentivize vessels and companies to engage in fair labor practices.

While economic pressure can be a powerful tool, it can also have unintended consequences. Sanctions and market restrictions, while targeting bad actors, can inadvertently harm small-scale fishers and communities who rely on the fishing industry for their livelihoods. These vulnerable groups may be caught in the crossfire, losing their income and facing economic hardship. To mitigate this uneven impact, targeted measures must be designed to focus on the actors and practices responsible for forced labor. Additionally, investing in alternative livelihood programs for coastal communities can help to reduce their dependence on the fishing industry and create more resilient local economies.

Lessons from Varied Efforts: The Need for Integration

Despite growing awareness and various efforts to combat forced labor in fishing, the problem persists. This is partly due to the fragmented nature of current approaches, which often operate in silos and lack coordination.

A multitude of stakeholders—including governments, nongovernmental organizations, academics, and industry actors—are working to address forced labor in fishing. However, these efforts are often isolated, with limited group collaboration and information sharing. This fragmentation hinders progress, as it prevents the development of comprehensive strategies that address the underlying causes of the problem.

Research has identified a lack of awareness among practitioners about the plethora of existing tools and other professional remits.²⁴ This lack of communication and coordination results in missed opportunities for collaboration and synergistic solutions. To overcome these challenges, a more integrated approach is needed to unite diverse actors and leverage their collective expertise to create a unified and effective strategy.

The integrated dissuasion approach recognizes that there is no one-size-fits-all solution to the complex problem of forced labor in fishing. It calls for a multifaceted strategy that addresses the underlying causes of the issue at multiple levels—from strengthening enforcement and enhancing accountability to empowering communities and promoting fair labor practices. By embracing this holistic approach, we can move closer to a future where forced labor is eradicated from the fishing industry and the oceans become a source of prosperity and well-being for all.

The Avengers Assembled: A Transdisciplinary Task Force

Addressing the complex and multifaceted challenge of forced labor in fishing requires a new paradigm of collaboration. The proposed solution draws inspiration from the collaborative power of Marvel Comics' Avengers Team, where diverse heroes unite their unique abilities—superpowers—to overcome threats no single hero could conquer alone. In forced labor, this translates into a *transdisciplinary task force* that brings experts from various fields to leverage their collective knowledge and skills. This task force would be a multifaceted team, each member playing a crucial role:

- *ECONOMIC STRATEGISTS*: Seasoned in trade policy, market access restrictions, and financial investigations, these experts would design and implement strategies that target the financial underpinnings of forced labor, making it less profitable and more risky for those who engage in it.
- *TECHNOLOGISTS*: Specialists in satellite monitoring, artificial intelligence and machine learning (AI/ML), blockchain, and other cutting-edge technologies at the forefront of innovation develop tools for surveillance, traceability, and enforcement. Their expertise is invaluable in creating systems that expose and deter illegal practices, incentivize

good practices, and bring much-needed transparency to the fishing industry.

- *LEGAL EXPERTS*: Well-versed in international fisheries, human rights, and labor laws, these experts would play a critical role in identifying legal standards, advocating for and writing policy reforms, and pursuing legal action against perpetrators. Their expertise would ensure that the fight against forced labor is grounded in a robust legal framework.
- *COMMUNITY LIAISONS*: With a deep understanding of local fishing communities and their unique cultural contexts, these individuals would build trust, foster collaboration, and empower communities to participate actively in designing solutions. Their work would be essential, ensuring that strategies are grounded in the realities of the lived experience of the victims of forced labor.

By integrating these diverse perspectives and skill sets, the task force can develop a comprehensive and effective strategy to combat forced labor from multiple angles, working in tandem toward the same goals. The research reveals that a practical pathway forward necessitates working across disciplines, sectors, jurisdictions, and professional responsibilities. This transdisciplinary approach is crucial for identifying gaps in knowledge and coverage, realizing novel solutions and innovative tools, and effectively addressing the complex and multifaceted nature of forced labor in fishing.

Each individual in this field possesses a unique skill set, a core competency akin to a superpower. By uniting these diverse “superpowers,” the task force can create a synergistic effect where the whole is greater than the sum of its parts. Just as the Avengers combine their strengths to overcome formidable foes, this transdisciplinary team can also leverage its collective expertise to dismantle the intricate web enabling forced labor and forge a path toward a more just and sustainable maritime future.

Technological Solutions and Community Empowerment: Enhancing Transparency and Strengthening Enforcement

Technological innovation and community empowerment are key pillars of the integrated dissuasion strategy. These tools complement economic and legal measures, offering powerful mechanisms for enhancing transparency, strengthening enforcement, and disrupting the systems that enable forced labor.

Technological Solutions: Illuminating the Shadows

Technology is crucial in combating forced labor and IUU fishing by providing the tools needed to monitor vast ocean spaces, track vessel activity, expose illicit practices, and incentivize sustainable practices. Satellites equipped with optical imaging capabilities can scan the seas for suspicious activity. At the same time, AI and machine learning algorithms can analyze vast amounts of data, identifying patterns and anomalies indicative of forced labor.²⁵ On-board cameras and acoustic sensors can provide real-time monitoring of vessel activities, while drones offer aerial surveillance. Even simple tools like smartphones and applications can be used by fishers to document abuses and report them to authorities anonymously.

Blockchain technology holds immense potential for enhancing transparency in seafood supply chains “from hook to plate.” By creating immutable records of transactions that track the movement of fish from the point of capture to the point of sale, blockchain can help to verify the origin and legality of seafood products, ensuring that they are not tainted by forced labor.

However, despite the promise of these technologies, their widespread adoption faces significant challenges. Lack of funding and resources, particularly in developing nations, limits access to basic and advanced technologies. Inadequate internet connectivity in coastal areas hinders real-time information sharing and

collaboration among enforcement agencies. Outdated data management systems and the lack of standardized platforms and international cooperation agreements further complicate global data-sharing efforts.

To overcome these obstacles, it is crucial to prioritize investment in foundational infrastructure, such as internet connectivity and digital information systems. Establishing real-time digital information-sharing platforms and fostering international collaboration around data sovereignty and privacy concerns are also essential. Moreover, continuous capacity-building initiatives are needed to empower coastal communities and enforcement agencies to effectively utilize these rapidly evolving technologies. Streamlining data sharing between regional and global efforts is key to maximizing the impact of technology while alleviating the burden on resource-stretched agencies.

The Power of Local Community Support

Technology alone is not enough to combat forced labor effectively. Local fishing communities have an intimate understanding of how forced labor manifests in their areas—the factors that attract victims to false opportunities, the methods used to lure them, and potential points for proactive intervention. Collaborating with these communities in designing solutions is crucial for effectively addressing this issue.

Empowering local communities to act as stewards of their resources is equally important. With their intimate knowledge of their marine environment and fishing practices, local fishers can be invaluable partners in monitoring and reporting suspicious activity. Initiatives like the Philippines' Bantay Dagat program have demonstrated the effectiveness of empowering fishers to act as watchdogs.²⁶ While success stories vary based on how each location implements the program, some areas have seen positive outcomes, including successful apprehensions of illegal fishers and an

enhanced sense of ownership and responsibility for marine resources.

Alongside knowledge sharing and community-based monitoring, creating market alternatives that connect ethical fishers directly with retailers and consumers can incentivize sustainable and fair labor practices. By increasing the income of fishers who adhere to ethical standards and ensuring transparency in the supply chain, we can create a powerful market-driven incentive for reform.

Investing in youth education, workforce training, and diversifying income sources for coastal communities is another crucial aspect of community empowerment. By creating access to livelihood alternatives, we can reduce reliance on fishing and form resilient communities less vulnerable to exploitation.

By combining technological innovation with community empowerment, we can create a synergistic effect that strengthens the fight against forced labor in the fishing industry. These two pillars of the integrated dissuasion strategy add to a powerful and comprehensive approach to safeguarding human rights, protecting the environment, and ensuring the long-term sustainability of our oceans.

Potential Intervention Points: Disrupting Exploitation at its Source

While addressing the economic and legal drivers of forced labor is essential, the integrated dissuasion strategy goes further by seeking unconventional intervention points throughout the system. These targeted interventions aim to disrupt the exploitation cycle before it begins, protecting vulnerable workers and preventing them from falling prey to predatory practices.

One promising approach is to mandate pre-departure briefings to fishers before they embark on their voyages and check-in debriefings while employed. These briefings, led by labor union

representatives or fish worker groups, would educate fishers about their rights, the potential risks of exploitation, and the red flags that might signal a deceptive recruitment process. This proactive intervention could empower fishers with knowledge and tools to make informed decisions and avoid falling victim to traffickers and unscrupulous employers.

Another potential intervention point lies in the digital realm. Social media platforms, like Facebook, are often used by migrant workers to seek employment opportunities. Unfortunately, these platforms can also be exploited by traffickers to lure unsuspected victims to forced labor. By partnering with social media companies, we can develop algorithms that flag suspicious job advertisements and promote awareness about the warning signs of exploitation. This could help to empower migrant workers to distinguish between legitimate job offers and those that lead to debt bondage and forced labor.

These are just a few examples of the potential intervention points that a transdisciplinary task force could explore. By bringing together diverse perspectives and expertise, the task force can identify and implement innovative solutions that disrupt the exploitation cycle at its source, protect vulnerable workers, and create a more just and equitable fishing industry.

There are numerous possibilities for intervention, and a transdisciplinary task force is uniquely positioned to identify and implement the most effective strategies. By thinking outside the box and exploring unconventional approaches, we can create a multi-layered defense against forced labor that protects workers at every stage.

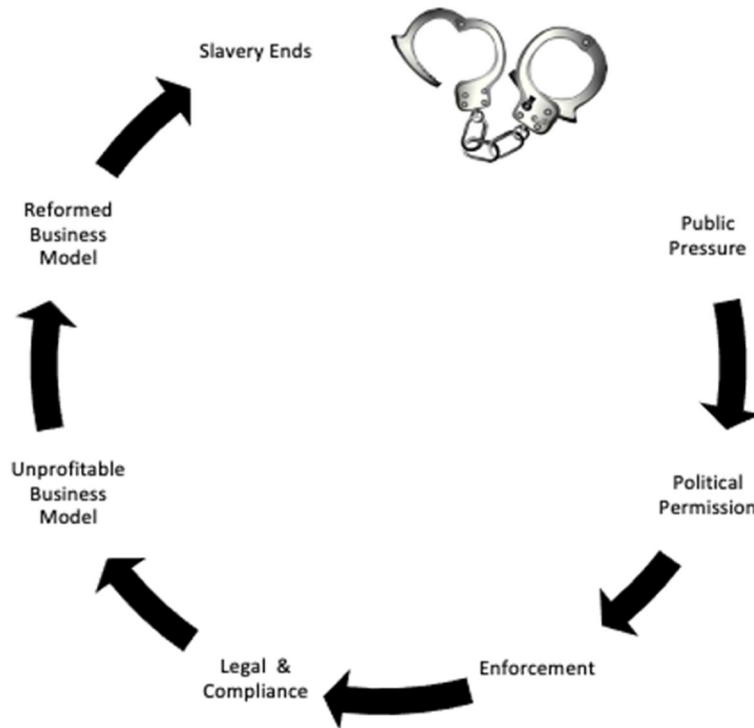


FIGURE 20.1: A PATHWAY FOR COMBATING FORCED LABOR IN THE OFFSHORE COMMERCIAL FISHING INDUSTRY

Source: Anny Barlow

The Transdisciplinary Task Force: A Unified Approach

To eradicate forced labor in the fishing industry, a paradigm shift is required—one that moves beyond fragmented efforts and embraces a unified, multi-pronged approach. This approach recognizes that accountability is key to driving the necessary business reform. International treaties already identify businesses as “duty bearers,” responsible for upholding social and environmental well-being. However, to motivate genuine change, the risk of unethical practices must outweigh the profitability.

Existing legal and compliance frameworks, such as anti-money laundering regulations and import controls, offer promising tools to achieve this. However, their full potential can only be realized through consistent enforcement at both national and international levels, supported by increased political will, resource allocation, and focused implementation both on water and land. Figure 20.1 illustrates a clear pathway to combating forced labor in the offshore commercial fishing industry. By holding bad actors accountable and increasing non-compliance risks, businesses will be incentivized to reform their practices.

However, the challenge lies in the hidden nature of forced labor at sea. Unlike land-based slavery of the past, sea slavery is often out of sight and out of mind, perpetuating indifference among the general public. To overcome this, a collaborative and comprehensive approach is essential.

Building on the earlier introduction of the transdisciplinary task force, this model—akin to Marvel’s Avengers—illustrates how diverse experts can combine their core competencies—superpowers—to combat forced labor from multiple angles. As shown in Figure 20.2, this task force facilitates collaboration across institutions with diverse professional mandates, aligning efforts to synchronize actions, raise awareness, build capacity, better characterize the problem, and improve governance structures, all while considering unintended consequences.

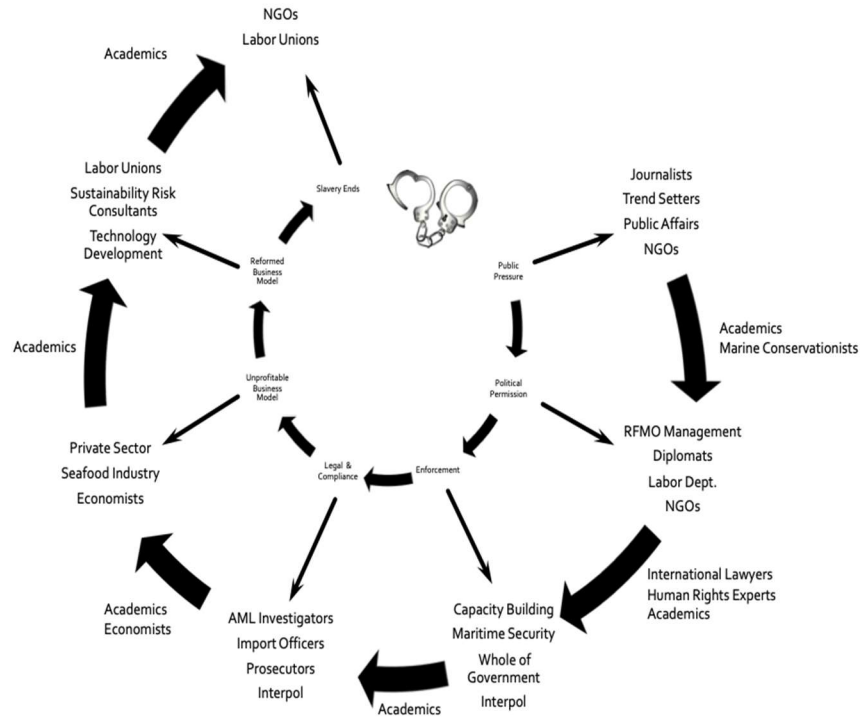


FIGURE 20.2: AN EXTENDED VERSION OF FIGURE 20.1 INCORPORATING PROFESSIONAL MANDATES CAPABLE OF CONTRIBUTING EFFORT TO EACH SEGMENT OF THE DEPICTED PATHWAY

Note: (a) those positioned adjacent to the outer arrows facilitate transitions between stages outlined in the pathway, and (b) “academics” encompass researchers from various institutions who help at every stage of the pathway.

Source: Anny Barlow

Examples of Successful Integrated Efforts

Successful integration of efforts has been demonstrated on both small and large scales. One superhero interviewed for this study shared an anecdote of the successful integration of applied effort in Indonesia—the harbormaster at Manado Port invited labor inspectors to establish a desk at the harbor to audit labor conditions

on incoming and outgoing vessels during joint inspections.²⁷ This collaboration between the Ministry of Maritime Affairs and Fisheries and the Ministry of Manpower has led to more effective enforcement measures.

On a national level, the U.S. government's recent presidential memorandum emphasizes the importance of government messaging with non-governmental voices to combat forced labor.²⁸ This led to the Collaborative Accelerator for Lawful Maritime Conditions in Seafood (CALM-CS) initiative, exemplifying a coordinated effort involving civil society and the private sector.²⁹

Global Network Proposed

Given the transnational nature of forced labor in fishing, a global network of transdisciplinary task forces—modeled after the aforementioned Avenger's Team—is proposed. This network would operate at four governance levels: international, regional, national, and local. Such a structure ensures international coordination while allowing localized, on-the-ground focus for tailored intervention. Figure 20.3 illustrates this structure, which creates alignment across these governance levels, ensuring that the integrated dissuasion strategy is applied effectively at all scales.

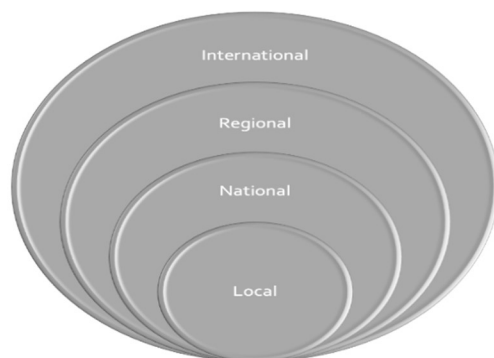


FIGURE 20.3: PROPOSED GOVERNANCE LEVELS OF A TRANSDISCIPLINARY TASK FORCE NETWORK WORKING IN STRATEGIC ALIGNMENT

Source: Anny Barlow

By creating alignment across these governance levels, the proposed network can effectively address the complexities of forced labor at multiple scales and improve collaboration among diverse stakeholders.

1. *INTERNATIONAL TASK FORCE*: This overarching body would strategize transnational objectives, set global standards, and facilitate coordination between regional task forces. It would also play a crucial role in advocating for international agreements and policies to combat forced labor, as well as mobilizing resources and support for initiatives at lower levels.
2. *REGIONAL TASK FORCES*: These teams would focus on specific geographic areas, addressing the unique challenges and dynamics of forced labor in their respective regions. They would work closely with national task forces to implement regional strategies, share information, and coordinate enforcement efforts across borders while working with the international task force to provide regional feedback.
3. *NATIONAL TASK FORCES*: These bodies would develop, implement, and enforce national laws and regulations related to forced labor in fishing. They would play a vital role in coordinating with local task forces, incorporating local concerns while providing them with support and resources, and ensuring that local initiatives align with national priorities.
4. *LOCAL TASK FORCES*: These grassroots teams, often comprising fishers, community leaders, and local NGOs, would be at the forefront of the fight against forced labor. They would possess intimate knowledge of local fishing practices, vulnerabilities, and potential intervention points.

Their role would be crucial in monitoring and reporting suspicious activity, raising awareness within their communities, and providing support to victims of exploitation while informing the national task force of local concerns.

The SAFE Seas project, implemented in Indonesia and the Philippines, serves as a model for this approach, demonstrating the positive impact of top-down coordination and bottom-up information sharing.³⁰ By scaling this approach through a global network, we can leverage the collective power of diverse stakeholders to address forced labor across multiple levels. This unified, multi-level effort ensures the transdisciplinary approach reaches all areas, promising a secure, equitable, and sustainable maritime future.

Key Pillars for the Integrated Dissuasion Strategy

The integrated dissuasion strategy encompasses three key pillars designed to dismantle the economic incentives for forced labor, increase transparency, and empower those most affected:

1. *STRATEGIC ECONOMIC PRESSURE*. Economic incentives are crucial in driving forced labor. By disrupting the profitability of these practices, we can create powerful disincentives for those involved in exploitation. This can be achieved through:
 - *Targeted Sanctions and Market Restrictions*: Governments and international bodies can impose these measures on vessels and companies implicated in forced labor, restricting their access to lucrative markets and imposing significant financial penalties. The EU's 2015 threat of a "red card" to Thailand, which successfully prompted fishery reforms, illustrates the effectiveness of this approach.

- *Legal Compliance and Enforcement*: Existing legal frameworks, such as the U.S. Tariff Act's Withhold Release Orders (WROs), can be utilized to detain goods suspected of being produced with forced labor and launch an investigation. Financial investigations can expose illicit financial flows, further disrupting the operations of bad actors.
 - *Consumer Awareness and Action*: Targeted campaigns can generate public pressure about the prevalence of forced labor in the seafood industry, enhancing the political will to allocate resources effectively. Thus, holding more offenders accountable increases their risks and disincentivizes their behavior.
2. *TECHNOLOGICAL SOLUTIONS*. Technological innovation is critical to enhancing transparency and traceability within the fishing industry, making it harder for forced labor to remain hidden. The following technologies can be leveraged:
- *Vessel Monitoring Systems (VMS)*: By expanding the use of VMS to track vessel movements, monitor fishing activities, and detect suspicious behavior, we can improve surveillance and identify potential cases of forced labor.
 - *Blockchain Traceability*: Implement blockchain-based traceability systems to create transparent and tamper-proof records of the seafood supply chain, from catch to consumer. This can help identify products not associated with forced labor and incentivize companies to comply with regulations.
 - *AI/ML Powered Risk Assessments*: Use artificial intelligence and machine learning to analyze data and identify patterns that could indicate high-risk vessels or

companies. This can help target enforcement efforts and prioritize interventions.

3. *COMMUNITY EMPOWERMENT*: Empowering local communities is crucial to combating forced labor in fishing. By leveraging the knowledge and expertise of local fishers and their communities, we can create a powerful network of advocates and watchdogs:

- *Local Monitoring and Enforcement*: Empower local fishing communities to actively participate in monitoring and reporting concerning events. This can be achieved through training programs, establishing community watch groups, and creating safe channels for reporting abuse. Ensuring internet connectivity in these communities is paramount to this end.
- *Build Trusted Relationships*: Engaging in open, respectful dialogue and listening to communities' experiences is essential. Establishing partnerships that prioritize their input and involvement in solution development fosters trust and encourages stakeholders to share their experiences, fostering better problem characterization.
- *Alternative Livelihoods*: Invest in programs that diversify income sources for coastal communities, reducing their reliance on fishing and creating more resilient livelihoods. This can reduce the vulnerability of individuals to forced labor and strengthen the economic well-being of communities.

The integrated dissuasion strategy employs these three pillars—strategic economic pressure, technological solutions, and community empowerment—to dismantle the complex systems that perpetuate forced labor in the fishing industry. This multi-pronged approach recognizes that no single tool can solve this problem alone.

It is about creating a powerful synergy where empowered communities become trusted resources, technology enhances transparency and accountability, and increased accountability and economic pressure create incentives for change. By working together, we can create a safer, more equitable, and sustainable future for the fishing industry.

Conclusion: Charting a Course Toward a Just and Sustainable Maritime Future

Forced labor in commercial fishing is a transboundary crisis with profound implications for human rights, environmental sustainability, and global food security. Its devastating consequences extend far beyond the individual victims, affecting entire communities, economies, and ecosystems.

The integrated dissuasion strategy presented in this chapter offers a holistic and promising framework for effectively combating this insidious practice. This strategy leverages a multi-pronged approach by recognizing the interconnected nature of forced labor, illegal fishing, and broader socioeconomic factors. It combines:

- Strategic economic pressure to disrupt the financial incentives driving exploitation.
- Technological innovation to enhance transparency and traceability, making it harder for forced labor to remain hidden.
- Community empowerment to engage local stakeholders as active participants in monitoring, reporting, and preventing abuse.

The proposed global network of transdisciplinary task forces serves as a model for unifying efforts across governance levels and professions, ensuring that local realities inform international actions and vice versa. This approach not only builds capacity and

strengthens enforcement but also fosters collaboration among stakeholders who share responsibility for eradicating forced labor.

Achieving a maritime future characterized by security, equity, and sustainability is not merely a lofty aspiration; it is an urgent imperative. Governments, industry leaders, non-governmental organizations, researchers, and consumers must all play an active role in this collective endeavor. By working together, we can break the chains of forced labor, protect the rights and dignity of fishers, and ensure that our oceans remain a source of sustenance and prosperity for generations to come.

The fight against forced labor in fishing is not just a legal or economic obligation but a moral imperative. We have a shared responsibility to ensure that the blood, sweat, and tears of exploited workers do not taint the seafood we consume. By embracing the integrated dissuasion strategy and fostering a spirit of collaboration and innovation, we can forge a brighter future for the fishing industry—one that respects human rights, protects the environment, and upholds the principles of justice and equity.

Endnotes

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