Can Tech Tame the Outlaw Ocean?

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*The Outlaw Ocean: Crime and Survival in the Last Untamed Frontier.*
Random House, 2019

*Ghost Fleet,* a film directed by Shannon Service and Jeffrey Waldron. Vulcan Productions, 2019

Thanks to a series of media and human rights reports, many of us are now aware that vast numbers of young men and boys are lured onto fishing boats and held in slavery at sea—sometimes for years without touching land. Attention to the dramatic extent of crimes at sea spiked a few years ago with incredible journalistic investigations by reporters at the Associated Press, New York Times, and The Guardian as well as continued human rights exposes by Human Rights Watch, Greenpeace and others.

Now with the launch of Ian Urbina of the New York Times’ new book, *The Outlaw Ocean,* and the release in mid-2019 of an important new film on slavery at sea, *Ghost Fleet,* it’s time not only for renewed attention but a close review of what has been learned through an early round of interventions intended to end slavery at sea.¹ Results from these investments are promising. We appear to have the right technical tools. Now we need key stakeholders to develop the political will to use these tools.

¹ I am grateful to Urbina and to the Vulcan Productions team, represented by Ted Richane and Johan Bergenas, who generously shared their research and recommendations with my colleagues and me at meetings and events at USAID in 2016 and 2018.

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The problem

Urbina is a particularly intrepid reporter who spent many years literally at sea to track stories of what happens where there are no laws. The book is a compelling overview of everything from cruise ships’ environmental crimes (dumping toxic waste) to the activist Women on Waves ship, providing abortions to women in countries where the procedure is illegal. One of the book’s most fascinating and little-known stories is of a private “sovereign nation” set up on an abandoned anti-aircraft platform and dubbed Sealand. Sealand’s story is the book’s running theme: “A country’s ability to enforce its laws extends only so far as its borders.” And when it comes to the ocean, no one is entirely certain where those borders are. As the book notes again and again, this creates a near-lawlessness on the high seas. But the lawlessness eventually comes back to land, as well.

The most gripping passages of the book are those that detail the stories of the men and boys who are forced to work on the boats. Indeed, Urbina admits in his preface that it was the story of slavery at sea that first convinced his editor to allow him to begin this lengthy set of investigations. From its introductory pages, the book forces the reader to see these invisible workers. On the very first page Urbina describes boys with missing fingers and open sores on their hands. “The boys had stitched closed the deeper cuts themselves. Infections were constant. Captains never lacked for amphetamines to help the crews work longer, but they rarely stocked antibiotics for infected wounds.”

Crew are all too often abandoned when vessels no longer need them, and sometimes thousands of miles from home. This is the problem the film Ghost Fleet seeks to highlight. While the statistics are shocking, the filmmakers recognize that it is human stories that galvanize action. The film captures the compelling narrative of a human rights activist, Thailand’s Patima Tunguchayakul, who advocates for justice for a fishing crew abandoned on a remote Indonesian island.

Tunguchayakul’s courage in the face of corruption and intimidation is inspiring. So too is the commitment of the production company, Vulcan Productions, to engaging with activists worldwide and using the film to ensure that Tunguchayakul’s organization and others have the attention and support to make greater inroads on this abuse.

In my own work as a labor specialist I knew the problem was significant. The International Labour Organization (ILO) believes that a “substantial proportion of the estimated 29 million forced laborers worldwide” are trapped on board fishing vessels or in the wider fish and seafood industry. Crews on fishing vessels work under conditions of forced labor, including excessive working hours (sometimes 18-20 hours per day), physical abuse, lack of food and water, and...
coerced indebtedness. On the lawless oceans, murder is commonplace. Both the film and the book cite a UN investigation that surveyed fifty men and boys who had been trafficked onto Thai fishing boats. Of the fifty interviewed by UN personnel, 29 said they witnessed their captain or other officers kill a worker. One reason these extreme abuses thrive out at sea is the ‘invisibility’ of the crew, who are beyond the reach of traditional labor inspection regimes. This was the challenge that kept me awake at nights during my time at USAID. How could we even see these trafficked workers, let alone intervene and end the abuses they were facing?

**The technical fix**

At USAID, my colleagues and I converged from different vantage points—preserving ocean biodiversity and protecting labor rights—to integrate investments on both the labor and environmental sides of the problem set. We knew there was a strong relationship between food security, a USAID priority, and ocean biodiversity. Around 3.2 billion people in developing countries rely on fish for more than 20 percent of their animal protein. Rapid depletion of the resource could precipitate a global food security crisis—possibly leading to increased conflict. This is why the Obama Administration declared addressing Illegal, unreported, and unregulated (IUU) fishing as a top foreign policy priority.

IUU fishing accounts for an estimated 20 percent of all catch—representing a loss to economies of between $10 and $30 billion annually—and plays a major role in the rapid depletion of fish stocks worldwide. Because IUU fishing vessels inherently operate for illicit financial gain, and seek to avoid costs—such as those associated with license fees, ship maintenance, and the cost of labor—they frequently take part in labor trafficking.

Advocates for better governance at sea have been frustrated by the practical and policy hurdles involved with getting eyes and ears onto boats. Yet many of us felt technology could be an important part of the approach needed to rein in crimes at sea. We believed that where human observers were scarce, surveillance technologies could contribute in a positive way. We were, after all, already supporting systems to strengthen electronic catch documentation and traceability (eCDT). Therefore we sought ideas that would harness satellite imaging, mine the ‘deep dark web’ and deploy other digital and data mining approaches to pinpoint areas where trafficking and/or illegal fishing might occur. The theory was that we

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2 I am particularly grateful to Marina Colby, USAID Counter Trafficking in Persons Specialist, and Heidi Schuttenberg, USAID Coastal Resources and Biodiversity Advisor for the insights reflected in this article. The analysis was developed through years of work with both of them and benefitted tremendously from Dr. Schuttenberg’s environmental lens on the problems.

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could ultimately cull from the existing data sets the signals that would enable law enforcement to better target their efforts to find all forms of crime at sea.

A number of very promising initiatives have been launched in recent years tackling specific pieces of this puzzle. The Center for Advanced Defense Studies (C4ADS) had been supported by USAID to conduct research on financial networks enabling wildlife trafficking. They applied this approach, which includes mining a wide variety of data sources, to develop dossiers on financial enablers of fisheries crimes and provide the information to law enforcement. Issara Institute drew on our support to develop a social media tool for migrant workers, Golden Dreams. The theory of change here was that workers would use the platform to share information about risks with one another—and that researchers would be able to cull patterns from these individual data points. Another initiative, the Independent Monitoring at Sea (IM@Sea) project sought to make workers at sea visible and keep them connected with on-shore advocates through use of satellite-based, vessel-tracking technology. With narrowband satellite devices, video cameras, data collection tools, and a risk assessment system, IM@Sea partners tested ways to generate labor and environmental risk profiles of fishing vessels. And as pressure on the Thai government has mounted, it has agreed to work with iRespond, a group that creates digital identities, to create electronic identities for every fisher leaving from or returning to a Thai port. The combination of these initiatives should, at least in the relevant Southeast Asian geographies, make it possible to continuously track workers on vessels, enable them to communicate with trusted advocates before, after and during their voyages, and begin to amass a large enough data pool to begin to predict risks and enable more effective and targeted legal interventions, where needed.

This is not to say tech alone is the answer. There is no doubt that without much stronger and much more coordinated stakeholder response, better data will be of little avail. However, there is promise in doing more to combine approaches to tracking fish and addressing slavery to build better data sets. By encouraging the collection, sharing, and analysis of verifiable data related to seafood products as they move through the supply chain, we can significantly limit the market for illegal fish and reduce revenues to illegal operators, while strengthening market access for harvesters who operate legally. USAID’s Oceans and Fisheries Partnership used electronic monitoring and traceability to counter illegal fishing and create transparency for workers on fishing vessels, ultimately helping partner companies strengthen their supply chain visibility and management. And while this particular partnership focused on fisheries, partners recognized the potential to incorporate labor rights monitoring into this effort.

While we were encouraged by the results of these specific initiatives, and in the increase in attention and resources to overfishing and to labor trafficking at sea,
we continued to observe a siloed approach to the two problem sets, diminishing the potential impact of any new investments. This was predictable, given that many of the seed investments on both the labor and environmental sides were small and only intended to catalyze pilot approaches to the problems. At this point, however, enough has been learned from the pilots. We need to combine what’s been learned into more effective and scaleable programs.

Through 2018 and 2019 we convened stakeholders representing a number of the most promising investments on both sides of this problem set to generate recommendations for collaboration to drive more effective interventions. Here are two of the top line outcomes from these discussions:

*Technology-based systems to improve working conditions and document fish catch will be more efficient and effective if their development becomes more integrated.* Technology-based systems to address labor and environmental issues in fishing share many characteristics and requirements. For example, both may rely on Vessel Monitoring Systems (VMS), improved connectivity at sea, documentation of fishing activities, and information on vessel ownership and licensing. More integrated development will improve overall function and cost. Where different data elements are required by these systems, creating data sharing and interoperability protocols at the outset is likely to reduce costs and improve functioning over retrofitted solutions. Some good specific ideas include investing in systems for continuous connectivity on boats.

*To make solutions truly inter-operable, you need more than tech: you need people.* In particular, collaboration with strong, trusted worker organizations is essential to ensuring that tech tools and enhanced data collection actually result in improved labor and human rights protections. While technology can help reduce fisher isolation at sea, improve documentation of working conditions on fishing vessels, confirm appropriate wages are paid, and enable workers to act as eyes and ears to verify catch levels, these systems must be linked with trusted organizations that are able to bridge the power dynamics between workers and management to protect victims and achieve remediation when issues are identified.
The challenge of governance

But as noted earlier, good tech alone is not enough. These practical recommendations are only a piece of a systemic approach requiring government and multi-stakeholder action to establish, incentivize, implement, and enforce changes in norms and standards that address illegality and sustain an enabling environment for ecological management and labor protection.

Even with reliable data, governing the oceans is tough, even for well-intended governments. As Urbina noted, “Maritime law is opaque. Though it is not entirely accurate to describe the ocean as a lawless place, it is certainly a confounding knot of jurisdictions, treaties, and national laws litigated over centuries.” And there are practical hurdles as well. Vessels may be remote and isolated. And officials may be able to impound vessels and catch, but what do you do with the people? Even when coastal authorities identify trafficking victims, jurisdictional issues often get in the way of assisting them. Are authorities in the worker’s home country responsible for prosecuting the crime? What about authorities in the country where they boarded the vessel? And what about the country where officials ultimately find and rescue them?

There is no question we need greater inter-governmental collaboration to effectively enforce laws at sea. Investing in collaborative platforms is therefore critical. The ILO SEA Fisheries project holds great promise as a venue that can serve as an ongoing platform for multi-stakeholder collaboration to facilitate the development of integrated approaches. Funders and advocates should invest time and resources in supporting this and additional collaborative spaces.

The Indonesian IUU Fishing Task Force is a great example of how one government is tackling these issues in an integrated way. The Indonesian Government, recognizing that IUU cost the nation and coastal communities upwards of $3 billion per year, established this high-profile body, which coordinates 11 key Ministries and numerous government agencies, to tackle the interrelated issues of criminalities at sea, targeting IUU but also all forms of piracy and smuggling, including human trafficking. Indeed the Task Force identifies human rights violations more broadly, including all forms of labor exploitation, as a threat to maritime security.

However, few governments will be as proactive as Indonesia unless they are pushed to do so. To convince more governments to act, we need other stakeholders to come together and pave the way.
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**Industry: the weak link**

In a December 2019 report, two important donors on this topic, Freedom Fund and Humanity United, provided an assessment of the effect of collective efforts on this issue in an identified trafficking hot spot, Thailand. They noted a number of important efforts initiated by the Thai government, including new resource commitments to port inspections and enforcement. However, the report card on industry efforts was not as encouraging. The new report on the Thai seafood industry headlined this finding: “Despite publicly committing to change in Thailand, the business model remains unchanged. Few seafood buyers are building social and environmental compliance into the buying price of an order, which undermines efforts to promote labour rights.”

There have certainly been investments in collaborative and data-driven approaches. To cite just a few, Fishwise, Sustainability Incubator, and Seafish have all developed data management systems for industry to determine human rights risks. However, these initiatives are swimming against the greater tide of industry’s intense downward pressure on price. Fundamentally, the industry practices that drive overfishing, illegal fishing and labor exploitation in the first place remain unchanged, despite surface efforts at adding a layer of corporate social responsibility.

And this is where The Outlaw Ocean ends. “A company in any other industry that tolerated repeated disasters, saw withering public scrutiny, and yet was still able to continue its business largely uninterrupted would be an international scandal. In the fishing industry, it was par for the course,” Urbina states. And yet, he notes, “Technology exists to better track fish as it travels from bait to plate, and an emergent movement is pushing to make seafood more traceable.”

Humanity United and Freedom Fund suggest more companies sign onto the Ocean Disclosure Project and increase transparency by linking with vessel ID numbers, as an example of what might be done immediately. While this approach is only relevant for certain consumer markets, at least it serves to maintain pressure on governments that have a significant interest in global commercial markets and can help change the enabling environment there and elsewhere.

Correcting for the resource-depleting price pressures requires much more than this, however, and data has an important role to play—if the political will is in place. As fish stocks become depleted, scarcity will inevitably drive up price. Yet current sourcing practices continuously push for lowering, not raising prices. Global buyers, and ultimately consumers, must pay the price for fairly and sustainably caught fish.
Using data for true cost accounting: a way forward?

Here’s where existing data, better used, can play a critical role. We know enough to forecast what fish stocks will be from season-to-season. Not only that, by extrapolating from this data, we can predict how much labor will be needed for the catch. Rather than expecting individual companies, or even industry, to determine what a fair price is, stakeholders must collaborate with international bodies such as the Food and Agriculture Organization (FAO) and through it, invest in expanding FAO’s ability to conduct industry-wide forecasting on different stocks of catch marine capture. While establishing a floor price for fish as is done for other commodities may not be possible, this need not prevent affected governments and industry stakeholders from agreeing in principle on fair market value of each season’s catch. In short, we use data to drive the business practices that actually capture the true cost of fish. And let’s recognize that ensuring fair labor practices will inevitably drive up the cost of labor on the boats. We can factor this into the true cost of fish, and eliminate the existing slavery subsidy.

With the right enabling conditions, today’s technology offers the possibility to transform seafood supply chains. These kinds of approaches hold promise for other sectors as well. Stronger governance and increased transparency in the supply chain can help all of us design more efficient interventions to reduce human rights abuses, to conserve natural resources, and to identify and target criminal networks. We can create more and better partnerships across human rights and environmental actors to support and promote integrated traceability and due diligence systems, and tame the outlaw ocean.
About the Author

**Bama Athreya, PhD** has more than twenty years’ experience on international labor issues, gender and social inclusion, and business and human rights. She is currently a Fellow at Open Society Foundations and an advisor to C&A Foundation. Most recently she worked for the US Agency for International Development as Agency-wide global lead for Labor, and also led work on Gender and Social Inclusion, where she assisted field Missions around the world to develop new programming to address labor rights, counter human trafficking and promote women’s economic empowerment. She was also one of USAID’s principal points of contact on Business and Human Rights and led work to integrate efforts to counter trafficking in persons into food security and biodiversity programs. She has developed and led multi-country projects in Latin America, sub-Saharan Africa and Asia on the rights of working women, on forced and child labor, and on ethical business practices. She is a Member of the Council on Foreign Relations. She is a cultural anthropologist and obtained her M.A. and Ph.D. from the University of Michigan. She has authored numerous publications on labor rights issues.