

# THE OUTLAW OCEAN REPORT

FALL 2020

## Appendices

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





# APPENDICES

## Appendix A.

### Acronyms and Abbreviations

<b>ACTIP</b>	Convention Against Trafficking in Persons, Especially Women and Children
<b>ADR</b>	Alternative dispute resolution
<b>AIS</b>	Automatic Identification System
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>ASIPEs</b>	Association of Industrial Fisheries (Chile)
<b>BSCT</b>	Business Supply Chain Transparency on Trafficking and Slavery Act of 2015
<b>C188</b>	ILO Work in Fishing Convention
<b>CCSBT</b>	Commission for the Conservation of Southern Bluefin Tuna
<b>CDS</b>	Catch Documentation Scheme
<b>COS</b>	Stanford Center for Ocean Solutions
<b>COVID-19</b>	Coronavirus Disease 2019
<b>CSR</b>	Corporate social responsibility
<b>EDF</b>	Environmental Defense Fund
<b>EEZ</b>	Exclusive economic zone
<b>EJF</b>	Environmental Justice Foundation
<b>EU</b>	European Union
<b>FAD</b>	Fish aggregating device
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FIP</b>	Fisheries Improvement Projects
<b>FLOAT</b>	Fisheries Labor Open Accountability Tool
<b>FOC</b>	Flags of Convenience
<b>GDST</b>	Global Dialogue on Seafood Traceability
<b>GFI</b>	Global Fishing Index (Minderoo)
<b>GFW</b>	Global Fishing Watch
<b>GTA</b>	Global Tuna Alliance
<b>HR</b>	Human resources
<b>IATTC</b>	Inter-American Tropical Tuna Commission
<b>ICCAT</b>	International Commission for the Conservation of Atlantic Tunas
<b>ILO</b>	International Labour Organization

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<b>IMO</b>	International Maritime Organization (often used to refer to IMO number)
<b>IOTC</b>	Indian Ocean Tuna Commission
<b>ISSA</b>	International Seafood Sustainable Association
<b>ISSF</b>	International Seafood Sustainability Foundation
<b>ITF</b>	International Transport Workers' Federation
<b>ITQ</b>	Individual transferable quota
<b>IUCN</b>	International Union of Conservation of Nature
<b>IUU</b>	Illegal, unreported, and unregulated (fishing)
<b>KYR</b>	Know Your Rights (campaign)
<b>MCDP</b>	Marine Catch Purchasing Document
<b>MSC</b>	Marine Stewardship Council
<b>NGO</b>	Non-governmental organization
<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>ODC</b>	United Nations Office on Drugs and Crime
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PAS</b>	Publicly Available Specification (1550)
<b>PSMA</b>	Port State Measures Agreement
<b>PVR</b>	ProActive Vessel Register
<b>QR</b>	Quick response
<b>RFID</b>	Radio-frequency identification
<b>RFMO</b>	Regional Fisheries Management Organization
<b>SAMSA</b>	South African Maritime Safety Authority
<b>SeaBOS</b>	Seafood Business for Ocean Stewardship
<b>SLS</b>	Stanford Law School
<b>STF</b>	Seafood Task Force
<b>TTD</b>	Tuna 2020 Traceability Declaration (World Economic Forum)
<b>UN</b>	United Nations
<b>UNCLOS</b>	United Nations Convention on the Law of the Sea
<b>VDS</b>	Vessel day scheme
<b>VHF</b>	Very high frequency (radio)
<b>VMS</b>	Vessel Monitoring System
<b>VOSI</b>	Vessels in Other Sustainability Initiatives (ISSF)
<b>WCPFC</b>	Western and Central Pacific Fisheries Commission
<b>WEF</b>	World Economic Forum
<b>WWF</b>	World Wildlife Fund

## Appendix B.

### Interviewees

**Austin Brush**

C4ADS, Senior Analyst

**Beth Van Schaack**

Stanford Law School,  
Leah Kaplan Visiting Professor in Human Rights and faculty affiliate with Stanford Center for Human Rights & International Justice

**Dyhia Belhabib**

Spyglass and Ecotrust Canada,  
Founder and Principle Investigator, Fisheries

**Elizabeth Selig**

Stanford Center for Ocean Solutions,  
Deputy Director

**Emily Kelly**

Stanford Center for Ocean Solutions,  
André Hoffmann Fellow

**George Triantis**

Stanford Law School,  
Charles J. Meyers Professor of Law and Business

**Guillain Koko**

African Coalition for Corporate Accountability, Project Officer

**Jessie Brunner**

Stanford Center for Human Rights & International Justice, Senior Program Manager and Director, Human Trafficking Research

**Jessica Sparks**

University of Nottingham, Rights Lab  
Associate Director (Ecosystems and the Environment Programme), Assistant Professor of Antislavery Ecosystems

**Kevin McClain**

Bumble Bee, Vice President of Resourcing

**Kendra Travaille**

Minderoo, Research Manager, Sustainable Fisheries

**Martin Exel**

SeaBOS, Managing Director

**Mike Kraft**

Bumble Bee, Director, Sustainability

**Oleg Martins**

MRAG, Senior Manager

**Shalini Iyengar**

Stanford Woods Institute for the Environment and Stanford Law School, Stanford Program in International Legal Studies, Fellow

**Susan Jackson**

International Seafood Sustainability Foundation (ISSF), President

**Tom Pickerell**

Global Tuna Alliance, Executive Director

**Tony Long**

Global Fishing Watch, Chief Executive Officer

## Appendix C.

### Appendices: IUU Fishing Risk Assessment Tool

**Table 1. Risk Indicators and Corresponding Risk Metrics**

Risk Indicator	Risk Metric	Data source
Species Risk	Species IUU index	Sea Around Us
Supply Chain Transparency	RFMO IUU Risk index	GFW
Regulatory Authority	RFMO ability to enforce regulations	Experts
Fishing in High-Risk Regions	Fisheries Improvement	FIP
Fishing in High-Risk Regions	Country IUU risk index	IUU Fishing Index
Regulatory Authority	The PSMA ratification	The PSMA
Vessel History and Status	EU carding status	EU
Regulatory Authority	World Governance Indicator	Minderoo Global Fishing Index
Regulatory Authority	Corruption Index	Transparency International
Regulatory Authority	RFMO compliance	ISSF
Regulatory Authority	The PSMA standing	The PSMA
Ports of Convenience	Port Risk index	Selig & Pew port risk tools
Flags of Convenience	Flags of convenience	ITF
Vessel History and Status	Average IUU fleet risk	GFW and Trygg Mat Tracking
Complexity of Vessel Ownership	Ownership complexity	Triton (C4ADS platform)
Flags of Convenience	Flags of convenience	ITF
Vessel History and Status	Participation in PVR program	ISSF
Vessel History and Status	History of IUU records and most recent status	ISSF (VOSI, PVR); Trygg Mat Tracking
Vessel History and Status	History of national violations	ISSF (VOSI, PVR)
Complexity of Vessel Ownership	Ownership complexity	Triton (C4ADS platform)
Vessel Track	Continuous track (e.g., no obscure zones)	GFW
Fishing in High-Risk Areas	Fishing in high-risk areas	COS risk assessment
Fishing in High-Risk Areas	Fishing inside MPAs	GFW
Transshipment	Transshipment record and IUU potential	GFW
Species Risk	Bycatch risk	ISSF PVR (Shark and turtle best practices)
Vessel History and Status	IUU gear risk index	ISSF PVR (LS drift net); SeaAroundUs
Supply Chain Transparency	Certification score	User Data
Supply Chain Transparency	IUU certification score	Certification

**Table 2. Risk Indicators and Relevant Data Sources (cont. on next page)**

Risk Indicator	Sources
Transshipment	Global Fishing Watch: Transshipment
	Global Fishing Watch: Fishing Effort at 100th Degree
	IUU Fishing Index
	PEW Oversea Ocean Monitor
	NOAA Fisheries (US Seafood Import Monitoring Program)
Ports of convenience	NOAA Fisheries (US Seafood Import Monitoring Program)
	Factors Influencing the Choice of a Safe Haven for Offloading Illegally Caught Fish: A Comparative Analysis of Developed and Developing Economies *
	IUU Watch
	PEW Port Activity Report
	IUU Risk Intelligence
	FishWise White Papers
	The Illegal, Unreported, and Unregulated Fishing Index
	Sea Around Us
	Catapult Satellite Applications
	PEW Oversea Ocean Monitor
Deactivating location	Global Fishing Watch: Transshipment
	ICEYE Radar Satellite
	DigitalGlobe Skylight
	Global Fishing Watch: Fishing Vessels
	Spyglass
	PEW Oversea Ocean Monitor
	Catapult Satellite Applications
	NOAA Fisheries (US Seafood Import Monitoring Program)
Complexity of ownership	C4ADS Triton Portal
	Who Fishes Far
	PEW Oversea Ocean Monitor
	Trygg Mat Tracking Combined IUU List
	VOSI
	NOAA Fisheries (US Seafood Import Monitoring Program)

Risk Indicator	Sources
Stock assessment	NOAA Fisheries (US Seafood Import Monitoring Program)
	Sea Around Us
	Spyglass
	VOSI
	NOAA Identification of IUU Fishing Activities Estimating the Worldwide Extent of Illegal Fishing High Risk Species - Petrossian List (Table 1- Risk Scores for 58 Species)
	FIP
	FIP FisheryProgress
	IUU Fishing Index
	Minderoo GFI
	ISSF stock status reports
	CCSBT, IATTC, ICCAT, IOTC, and WCPFC stock assessments
	RAM Fishery Stock Status
Flags of convenience	ITF
	NOAA Fisheries (US Seafood Import Monitoring Program)
	PEW Oversea Ocean Monitor
	PEW Port Activity Report
	IUU Risk Intelligence
	FishWise White Papers
	Global Fishing Watch: Fishing Vessels
	Spyglass
	ISSF UVI (includes IMO)
	Trygg Mat Tracking Combined IUU List
	VOSI
	IUU Fishing Index
	Party to Port State Measures Agreement
	Global Fishing Watch: Fishing Effort at 100th Degree
	Global Fishing Watch: Transshipment

Risk Indicator	Sources
Vessel history	NOAA Fisheries (US Seafood Import Monitoring Program)
	Global list of authorized tuna fishing vessels
	ISSF PVR
	FIP FisheryProgress
	FIP
	IUU Fishing Index
	Trygg Mat Tracking Combined IUU List
	VOSI
	FishWise White Papers
	Spyglass
	PEW Oversea Ocean Monitor
High-risk fishing area	NOAA Fisheries (US Seafood Import Monitoring Program)
	PEW Oversea Ocean Monitor
	Sea Around Us
	IUU Risk Intelligence
	ICEYE Radar Satellite
	Digital Globe
	Skylight
	Global Fishing Watch: Fishing Vessels
	Spyglass
	Trygg Mat Tracking Combined IUU List
	Minderoo GFI
	FIP FisheryProgress
	FIP
	IUU Fishing Index
	Estimates of illegal and unreported fish in seafood imports to the USA
	ISSF PVR
	Global Fishing Watch: Fishing Effort at 100th Degree
	Global Fishing Watch: Transshipment



Risk Indicator	Sources
Transparency in supply chain	NOAA Fisheries (US Seafood Import Monitoring Program)
	Catapult Satellite Applications
	FishWise White Papers
	GTA Transparency Toolkit
	VOSI
	ISSF PVR
	ISSF UVI (includes IMO)
	GTA company traceability reports
	DETECT-IT
Regulatory authority	NOAA Fisheries (US Seafood Import Monitoring Program)
	PEW Oversea Ocean Monitor
	FAO global record of fishing, refrigerated transport vessels, and supply vessels
	Transparency International (country corruption index)
	ISSF PVR
	Party to Port State Measures Agreement
	ISSF stock status reports
	Minderoo GFI
	FIP FisheryProgress
	IUU Fishing Index
	Who Fishes Far
	ISSF UVI (includes IMO)
	Trygg Mat Tracking Combined IUU List
	VOSI
	Global Fishing Watch: Fishing Vessels
	Spyglass
	IUU Watch
	PEW Port Activity Report
	IUU Risk Intelligence

\* N. Marteache, J. Viollaz & G.A. Petrossian. "Factors influencing the choice of a safe haven for offloading illegally caught fish: a comparative analysis of developed and developing economies." *Crime Sci* 4, 32 (2015). <https://doi.org/10.1186/s40163-015-0045-2>

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## Appendix D.

### Appendices: Labor Abuses in Seafood Supply Chains

#### *Examples of Comic Contracts in Use:*

##### Comic Contracts

- Founded by South African attorney Robert de Rooy, comic contracts are legally binding contracts that bind parties through illustrated characters. The agreement is captured in pictures and the comic is signed as the contract.<sup>1</sup>

##### Aurecon

- Australian engineering company Aurecon became the first company in Australia to use visual-based contracts. Eliminating more than 4,000 words from their previous contract, Aurecon's new contracts use plain language and illustrations to promote the understanding of legal information.<sup>2</sup>

##### Creative Contracts

- Creative Contracts is a South African firm focused on creating audio- and visual-based contracts for their clients. Partnering with designers, lawyers, legal professors, and copywriters, Creative Contracts hopes to popularize the implementation of non-text-based contracts.<sup>3</sup>

##### University of Western Australia

- A collaborative team of researchers at the University of Western Australia led by Camila Anderson have created Comic Book Contracts, which, like other comic contracts discussed above, aim to resolve future disputes and increase access to legal information by omitting as much text as possible from legal contracts and replacing words with pictures and other illustrations.<sup>4</sup>

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1 Supra, note 34.

2 "Comic Book Contracts," Legal Heritage Centre, accessed December 6, 2020, <https://legalheritage.sclqld.org.au/comic-book-contracts>.

3 Ibid.

4 "Comic Book Contracts," University of Western Australia, published October 26, 2020, accessed December 6, 2020, <https://researchimpact.uwa.edu.au/research-impact-stories/comic-book-contracts>.

## *Initiatives to Empower Fishing Workers:*

### Know Your Rights (KYR) Campaign (Indonesia)

- Indonesian governments and an Indonesian think tank, Ocean Justice Initiative, published a KYR handbook to protect Indonesian fishers working overseas.<sup>5</sup>

### ISSARA Campaign (Thailand)

- ISSARA is an NGO based in Southeast Asia and the US tackling human trafficking and forced labor through worker voice, partnership, and innovation. It launched worker voice-driven ethical labour recruitment whereby the costs of recruitment are not borne by jobseekers and workers, but instead the costs are borne by the employer.<sup>6</sup> In ethical recruitment arrangements, both employers and employment agencies share the responsibility to respect all relevant laws; ensure ethical and professional conduct toward workers and each other; uphold decent health, safety, working, and living conditions for workers; and ensure access to functioning, credible grievance mechanisms. ISSARA tries to walk the line between representing the interests of workers while also building constructive relationships with industry. It serves a collaborative mediation type of role.<sup>7</sup>

### FAO/ILO/IMO guidance on training and certification of fishing vessel personnel

- The joint working group of FAO, ILO, and IMO published the guidance with particular reference to the IMO convention.<sup>8</sup> The guidance is mainly focused on the seafarer's safety at ocean, and it may be possible to incorporate KYR contents by revision of the guidance. But there is considerable discrepancy when fishers are seafarers and when they are not.

### Free, Prior and Informed Consent (FPIC) Campaign (Africa)

- FPIC is a broad legal construct that refers to a substantive right under international-, statute-, and customary law. There is no universal definition of FPIC, but "Oxfam defines it as the principle that indigenous peoples and local communities must be adequately informed about projects in a timely manner and given the opportunity to approve (or reject) a project before operations begin."<sup>9</sup> FPIC is relevant in the case of local fisheries management because it provides the legal structure that can enable communities to make decisions about their own resources free from any obligation, duty, force, or coercion.

<sup>5</sup> Ocean Justice Initiative, <https://oceanjusticeinitiative.org>

<sup>6</sup> ISSARA Initiative, <https://www.issarainstitute.org/ethical-recruitment>.

<sup>7</sup> Beth Van Schaack, personal communication, October 21, 2020

<sup>8</sup> Food and Agriculture Organization of the United Nations, International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, <http://www.fao.org/fishery/safety-for-fishermen/51553/en>.

<sup>9</sup> Wilmien Wicomb, "Free Prior and Informed Consent in Africa: Challenges and Opportunities", (February 21, 2015), [https://www.accahuman-rights.org/images/reports/LRC/2015\\_02\\_21\\_Article\\_for\\_Heinrich\\_Boll\\_Stiftung\\_Wilmien\\_Wicomb.pdf](https://www.accahuman-rights.org/images/reports/LRC/2015_02_21_Article_for_Heinrich_Boll_Stiftung_Wilmien_Wicomb.pdf)

### *Initiatives to create more business accountability:*

KnowTheChain (partnership of Humanity United, the Business & Human Rights Resource Centre, Sustainalytics, Verité, and Thomson Reuters)

- KnowTheChain provides benchmarks and resources for businesses and investors on forced-labor abuses within their supply chain. KnowTheChain's benchmark methodology comprises seven themes: commitment and governance, traceability and risk assessment, purchasing practices, recruitment, worker voice, monitoring, and remedy. The benchmark report shows the ranking scores of how hundreds of companies have performed over time.<sup>10</sup>

### Industry Charter of Commitment to Stop Illegal Fishing (Africa)

- An African NGO, Stop Illegal Fishing has developed an industry charter in consultation with the industry to limit the trade of illegally caught fish in the supply chain. The charter has provisions such as "(8) we commit to transparency regarding sourcing practices" and "(10) we will communicate any infringements to relevant authorities."<sup>11</sup>

### FishCoin Project (Singapore)

- FishCoin is a blockchain-based data ecosystem for the global seafood industry. The system incentivizes supply chain stakeholders to share data from the point of harvest to the point of consumption. Utilizing blockchain technology, FishCoin gives fishermen tokens for topping up their mobile phone data plans in exchange for collecting and submitting information on their catch.<sup>12</sup>

### SourceTrace Project (US)

- A private company, ST develops tools to help manage and sell crops and trace products back to the farms where they were made. ST aims to enable farmers to access the best markets wherever globally available, help them optimize their inputs, make procurement processes more reliable, and minimize the risk.<sup>13</sup>

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<sup>10</sup> KnowTheChain Initiative, <https://knowthechain.org>.

<sup>11</sup> Stop Illegal Fishing Initiative, <https://stopillegalfishing.com/initiatives/industry-charter>.

<sup>12</sup> Fishcoin Project, <https://fishcoin.co>.

<sup>13</sup> Zach Winn, "Digitizing Supply Chains to Lift Farmers Out of Poverty," Slice of MIT (September 20, 2020), <https://alum.mit.edu/slice/digitizing-supply-chains-lift-farmers-out-poverty>.



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