# C4ADS
innovation for peace

# SAFE HARBOR

## Port Prevalence in Cases of Forced Labor in Fishing

## ABOUT C4ADS

C4ADS (www.c4ads.org) is a 501(c)(3) nonprofit organization dedicated to data-driven analysis and evidence-based reporting of conflict and security issues worldwide. Our approach leverages nontraditional investigative techniques and emerging analytical technologies. We recognize the value of working on the ground in the field, capturing local knowledge, and collecting original data to inform our analysis. At the same time, we employ cutting edge technology to manage and analyze that data. The result is an innovative analytical approach to conflict prevention and mitigation.

© C4ADS 2020

## ABOUT THE AUTHOR

Irina Bukharin is a Senior Analyst at C4ADS on the Organized Crime and Grand Corruption Cell, where she specializes in human trafficking and forced labor.

## ACKNOWLEDGEMENTS

C4ADS would like to thank all those who provided data, insights, and guidance during this project. The author extends special gratitude to Sally Yozell, Senior Fellow and Director of the Environmental Security Program at the Stimson Center; Jack Stuart, Research Associate with the Environmental Security Program at the Stimson Center; Milko Schvartzman, Marine Conservation Expert; Serikat Buruh Migran Indonesia (SBMI), Pergerakan Pelaut Indonesia (PPI), and the many others whose efforts supported this work. Finally, the author would like to thank her fellow team members Amanda Shaver, Austin Brush, and Anna Wheeler, without whom this report would not have been possible.

C4ADS would also like to thank its technology partners, whose software and systems were integral to the project's success.

ANALYSIS POWERED BY

Palantir          WINDWARD°          aws

## LEGAL DISCLAIMER

The mention of any individual, company, organization, or other entity in this report does not imply the violation of any law or international agreement, and should not be construed to so imply.

# EXECUTIVE SUMMARY

Using 59 cases from the C4ADS Forced Labor Case Database, this analysis finds that between 2015 and 2020, Taiwan, Singapore, China, and South Africa were the most common port states visited by fishing vessels using forced labor, while Kaohsiung, Singapore, and Cape Town were the individual ports most frequently visited by fishing vessels using forced labor. Port states, and stakeholders around the world, have the opportunity to maximize anti-trafficking resources by identifying and disrupting forced labor and its supporting mechanisms at these key ports.

# TABLE OF CONTENTS

# BACKGROUND: FORCED LABOR IN FISHING

According to the International Labor Organization, forced labor is "work that is performed involuntarily and under the menace of any penalty."[1] It can span many forms and includes sex trafficking, child labor, and forced labor in a range of industries around the world. One such industry is the fishing sector, in which fishers can suffer poor working conditions, physical and sexual violence, and nonpayment of wages. They are especially vulnerable when they are at sea, unable to leave and less likely to have access to functioning means of communication with the outside world. Fishers working on distant-water fishing vessels, which harvest fish on the high seas or in other nations' coastal waters, exist outside of the jurisdiction and oversight available closer to shore and are particularly vulnerable to this exploitation.[2]

Forced labor in the fishing industry functions by cutting fishers off from the rest of the world. It is the brief interludes during which vessels are at port and subject to greater regulatory oversight that provide the best opportunity for the identification and disruption of ongoing cases of forced labor. As such, understanding which ports and port states are most often frequented by vessels using forced labor is critical for optimally allocating resources to identify victims and pursue perpetrators. This analysis uses C4ADS case data to identify the most common port states and individual ports that are visited by vessels known to be employing forced labor.

Port states play a unique role in the governance of maritime affairs. Flag states exercise authority over vessels that are registered to them and are flying their flag, but port states can also exercise authority over vessels that are within their ports and internal waters.[3] For example, the Port State Measures Agreement (PSMA) requires port state parties to implement certain port measures, already permitted by international law, to prevent and deter illegal, unreported, and unregulated (IUU) fishing.[4] These measures include increased collection of information from vessels, greater sharing of information among parties, inspections at port, and the right to deny vessels use of ports.[5] While the PSMA is structured around preventing and detecting IUU fishing, port states can enact similar measures to combat forced labor.

A range of non-port state parties also have a role to play in preventing forced labor at ports. Flag state officials, private entities such as port agents, and port-based fisher support organizations such as Apostleship of the Sea or the International Transport Workers' Federation (ITF) can all act to identify, prevent, and disrupt forced labor in fishing.[6] [7]

# DATA & METHODOLOGY: C4ADS' FORCED LABOR DATABASE

**Methodology**

This analysis identifies the ports and port states that are most frequented by fishing vessels using forced labor, according to C4ADS' data holdings. Data was derived from the C4ADS Forced Labor in Fishing Case Database. C4ADS compiles this database through victim interviews, information shared by C4ADS partners, and open source reporting. The Database houses information about the entities and circumstances involved in cases of forced labor, including but not limited to information about the vessel, associated companies, relevant jurisdictions, and identified indicators of forced labor.  In this context, C4ADS defines a case of forced labor as an incident, in alignment with the standards for forced labor set by the International Labor Organization, that occurs on a vessel involving one or more fishers and occurring within a discrete time period.[8]

This analysis focuses on those cases that touch on an identifiable port – for these purposes, we use the subset of cases in the database that have identifiable vessels, time periods or partial time periods, and identified port calls. Fifty-nine of the 129 initial cases in the database met these standards. For cases that only contained information about the beginning or end date of the fisher's time on the vessel, the missing date was placed one year prior to or after the known date.[9] In cases in which the beginning or ending date was only associated with a month and year, the first of that month was used as the date.

Port calls were identified through vessel transmission data (AIS data), fisher narratives, and information available in the open source. Port calls include those made when fishers reported boarding or disembarking from the vessel, as well as those during the fisher's time onboard the vessel. C4ADS analysts relied on AIS data provided by Windward Intelligence, a premier maritime domain awareness platform, to identify port calls or extended visits in port waiting areas.[10] This data was supplemented by testimonies from fishers or information derived from public reporting, particularly for cases in which AIS transmission data was not available.

**Summary of Data**

We used fifty-nine cases of forced labor in this analysis. These cases involved 58 unique vessels, as one vessel was associated with two separate cases. The cases almost entirely occurred on distant water fishing vessels, the majority of which are longliners crewed by fishers from Indonesia or the Philippines. The top four flag states of these vessels, followed by their respective number of vessels, are Taiwan (25), China (23), Japan (2), and Vanuatu (2). All other flag states (Sierra Leone, Dominica, Somalia, Panama, Lithuania, and Nauru) are represented by one vessel each. The distribution of flag states in this subset of cases is slightly skewed compared to the distribution in the wider C4ADS Forced Labor in Fishing Case Database, with the primary difference being that Taiwanese vessels make up approximately 40% of the vessels in this dataset and 30% of
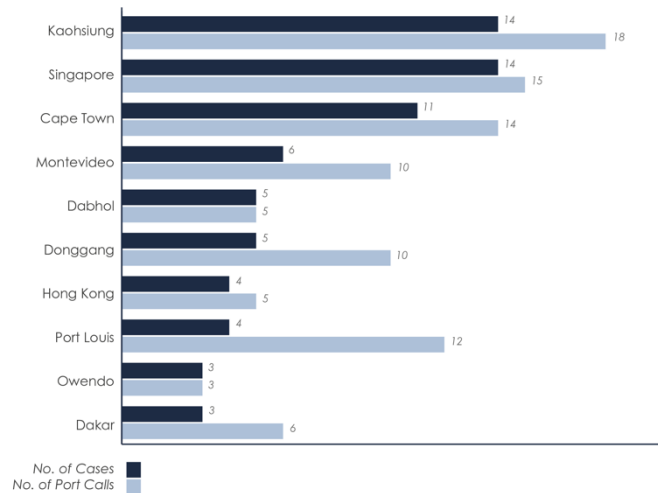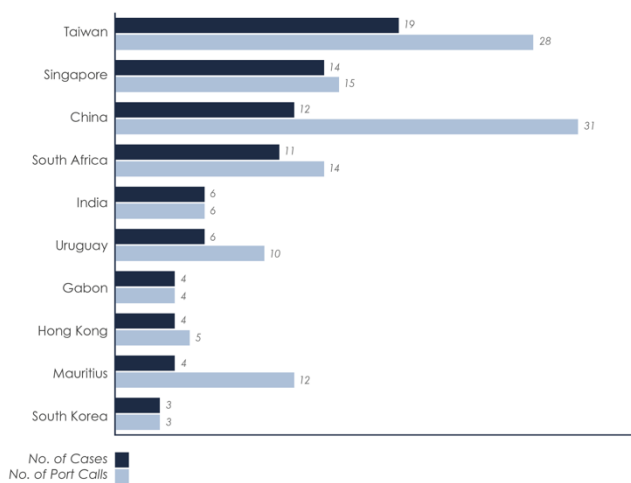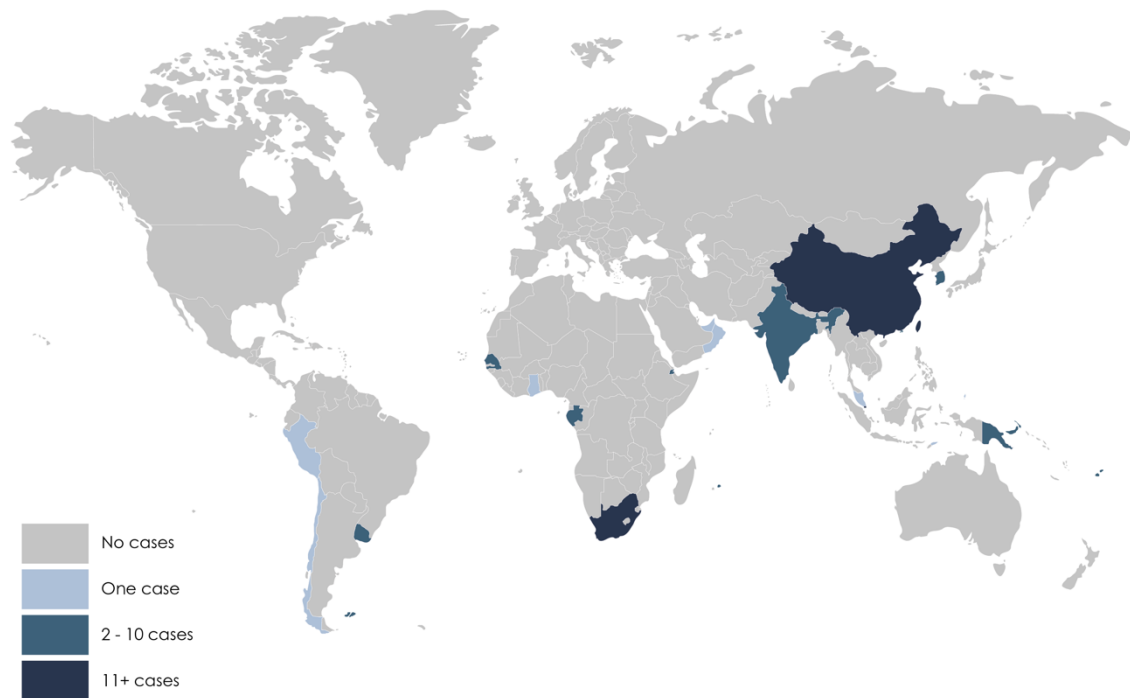
vessels in the C4ADS Forced Labor in Fishing Case Database as a whole. All cases used in this analysis took place between May 2015 and April 2020.
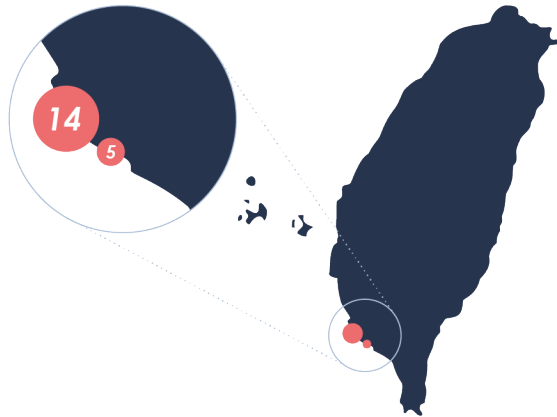
## Limitations

This methodology and the insights that can be gained from it are limited by a number of factors. The analysis is restricted to the cases in the C4ADS Forced Labor in Fishing Case Database, which only contains forced labor cases that C4ADS and its partners are aware of and have documented. As such, certain typologies of forced labor in fishing may be over- or underrepresented, though C4ADS attempted to counter this effect by including cases which have been the subject of public reporting.[11] Additionally, many of the cases in the database did not have available port call data, either because the vessel did not make a port call during the time that the victim was on board or because the vessel was not transmitting AIS data and analysts were not able to use other data sources to identify port calls. Therefore, this analysis is not fully representative of the activity of all fishing vessels using forced labor.

# FORCED LABOR BY PORT STATE

According to the dataset, twenty-three port states and 34 individual ports were visited by fishing vessels using forced labor. Taiwan, Singapore, China, and South Africa were port states for the greatest number of cases and had the greatest total number of individual port calls by vessels using forced labor. While cases involving Taiwan, Singapore, and South Africa primarily occurred at a single port – Kaohsiung, Singapore, and Cape Town, respectively – port calls in China were more evenly distributed across 10 ports.



Legend:
- No cases
- One case
- 2 - 10 cases
- 11+ cases



| Port State | No. of Cases | No. of Port Calls |
|---|---|---|
| Taiwan | 19 | 28 |
| Singapore | 14 | 15 |
| China | 12 | 31 |
| South Africa | 11 | 14 |
| India | 6 | 6 |
| Uruguay | 6 | 10 |
| Gabon | 4 | 4 |
| Hong Kong | 4 | 5 |
| Mauritius | 4 | 12 |
| South Korea | 3 | 3 |



| Port | No. of Cases | No. of Port Calls |
|---|---|---|
| Kaohsiung | 14 | 18 |
| Singapore | 14 | 15 |
| Cape Town | 11 | 14 |
| Montevideo | 6 | 10 |
| Dabhol | 5 | 5 |
| Donggang | 5 | 10 |
| Hong Kong | 4 | 5 |
| Port Louis | 4 | 12 |
| Owendo | 3 | 3 |
| Dakar | 3 | 6 |

## Taiwan

Taiwan is a port state for the greatest number of cases of forced labor (19) in our dataset, though there were fewer individual port calls in Taiwan than in China (28 versus 31).[12] [13] Taiwan is a leading flag state in the dataset, which may account for the high number of cases with Taiwanese port calls – 18 of 19 cases with port calls in Taiwan involved Taiwan-flagged vessels or foreign-flagged vessels ultimately beneficially owned by entities in Taiwan. Cases and individual port calls associated with Taiwanese ports were primarily centered around the port of Kaohsiung, though approximately one quarter of cases with port calls to Taiwan involved port calls to Donggang, a port relatively close to Kaohsiung. In addition to Taiwan's role as a port state and flag state, previous analysis by C4ADS also highlights Taiwan's role as a transit jurisdiction for fishers traveling to and from fishing vessels.[14]

## Singapore

Singapore was visited by fishing vessels using forced labor in 14 cases, even though it is not a flag state for any vessels in the dataset. This points to its unique role within distant-water fishing. Singapore, like Taiwan, is a prominent transit jurisdiction for fishers and may be used by Asian-flagged vessels to refuel and restock prior to departing for months-long fishing trips.[15] Singapore appears to play a greater role for the Chinese fishing fleet: 85% of cases with port calls in Singapore involved China-flagged vessels or foreign-flagged vessels ultimately beneficially owned by Chinese entities.

## China

Vessels using forced labor made 31 port calls in China across 12 cases of forced labor, though none of its ports are in the top three ports frequented by vessels using forced labor. Instead, port calls in China are distributed across 10 ports. This may reflect the fact that China is a prominent flag state with a fishing industry that is dispersed along its expansive coastline, while other countries in this dataset, such as Singapore or South Africa, are not major flag states yet have one port that is highly trafficked.[16] All of the cases with port calls in China occurred on China-flagged vessels or on a foreign-flagged vessel ultimately beneficially owned by entities in China.
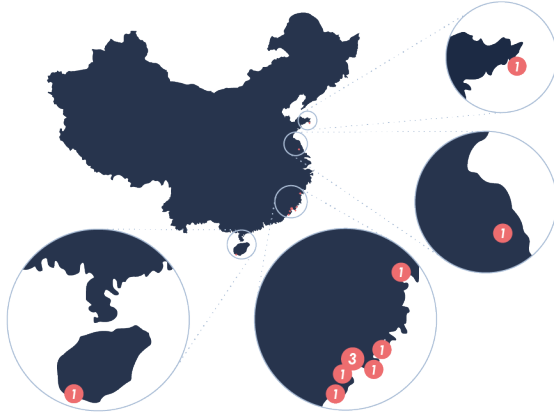
## South Africa

Eleven cases of forced labor involved port calls to Cape Town, South Africa, even though South Africa is not a flag state for any vessels in the dataset. Cape Town is the only South African port that appears in the dataset, which may reflect Cape Town's function as a logistical hub for fleets based in the Atlantic and Indian Oceans. Cape Town seems to play a more significant role for the Taiwanese fleet, as over 60% of cases with port calls to Cape Town involved Taiwanese vessels.

# CONCLUSION

This analysis finds that Taiwan, Singapore, China, and South Africa are the most common port states visited by fishing vessels employing forced labor. For Taiwan, Singapore, and South Africa, these port calls involve one primary port – Kaohsiung, Singapore, and Cape Town – while in China, port calls are dispersed across 10 ports (reference **Appendix 1: Ports by Country, Cases, and Number of Port Calls**). The majority of cases in the C4ADS dataset involved port calls at one of these four jurisdictions, illustrating the heightened potential for impact that can be realized through focusing on the most at-risk ports and port states.

This analysis also demonstrates the need to better understand why these ports are more frequently visited by vessels using forced labor than other ports and port states. Initial evidence does not support the theory that these ports are simply the ones most commonly used by distant water fishing vessels. The top five ports frequented by major distant water fishing fleets, as identified by the Stimson Center, do not overlap with the top ports identified in this analysis.[17] [18] High numbers of port calls in Taiwan and China by Taiwan-flagged and China-flagged vessels, respectively, illustrate the impact of flag state in determining ports used, as does the difference in distributions of Taiwan- and China-flagged vessels visiting Singapore and South Africa. However, more research is necessary to understand these and other factors that lead to higher numbers of visits at certain ports by vessels using forced labor.

In order to disrupt systems of forced labor in the fishing industry, a data-driven approach is needed. As with ports, further research and analysis is necessary to understand the typologies of other components of forced labor in fishing, as well as the interactions among them. Through the insights derived from this research, governments, intergovernmental organizations, industry, civil society, and other stakeholders can engage in targeted, effective action against forced labor in the fishing sector, or otherwise be held accountable for misdirected or absent efforts.

# GLOSSARY

**Automatic Identification System (AIS):** AIS transponders provide information about a vessel, such as identity, position, course, and speed to other ships and to coastal authorities automatically. In 2000, the International Maritime Organization (IMO) adopted a requirement for all ships of 300 gross tonnage and upwards engaged on international voyages to carry AIS, effective December 2004.[19]

**Case of Forced Labor:** For the purposes of this analysis, C4ADS defines a case of forced labor as an incident on a vessel involving one or more fishers that aligns with the standards for forced labor set by the International Labor Organization.[20]

**Flag State:** The flag state of a vessel is the jurisdiction to which the vessel is registered. Vessels must fly the flag of the that state and follow its laws and regulations, even when the vessel is outside of the state's territory.[21]

**Forced Labor:** According to the International Labor Organization (ILO) Forced Labor Convention, 1930 (No. 29), forced or compulsory labor is "all work or service which is exacted from any person under the threat of a penalty and for which the person has not offered himself or herself voluntarily."[22]

**Port Call:** A vessel makes a port call when its AIS transmission data or other case data reflects its presence in the close vicinity of a port, as defined by Windward, for an extended period of time, enough to indicate possible interaction with the port or port's authorities.[23]

**Port State:** Port states are jurisdictions that vessels visit through port calls. International law allows port states to exercise jurisdiction over vessels within its ports.[24]

**Port State Measures Agreement (PSMA):** The PSMA is a binding international agreement that prescribes "a minimum set of standard measures for Parties to apply when foreign vessels seek entry into their ports or while they are in their ports" for the purpose of preventing and detecting illegal, unreported, and unregulated (IUU) fishing.[25]

# APPENDIX 1: PORTS BY COUNTRY, CASES, AND NUMBER OF PORT CALLS[26]

| Port | Port State | Number of Cases | Number of Port Calls |
|------|-----------|-----------------|----------------------|
| Kaohsiung | Taiwan | 14 | 18 |
| Singapore | Singapore | 14 | 15 |
| Cape Town | South Africa | 11 | 14 |
| Montevideo | Uruguay | 6 | 10 |
| Dabhol | India | 5 | 5 |
| Donggang | Taiwan | 5 | 10 |
| Hong Kong | China | 4 | 5 |
| Port Louis | Mauritius | 4 | 12 |
| Owendo | Gabon | 3 | 3 |
| Dakar | Senegal | 3 | 6 |
| Busan | South Korea | 3 | 3 |
| Xiamen | China | 3 | 10 |
| Stanley Harbour | Falkland Islands | 2 | 2 |
| Djibouti | Djibouti | 2 | 7 |
| Suva | Fiji | 2 | 6 |
| Port Moreseby | Papua New Guinea | 1 | 2 |
| Shidao | China | 1 | 1 |
| Quanzhou | China | 1 | 1 |
| Alotau | Papua New Guinea | 1 | 5 |
| Baogang | China | 1 | 1 |
| Jaigarh | India | 1 | 1 |
| Punta Arenas | Chile | 1 | 2 |
| Ningde | China | 1 | 1 |
| Shenhuzhen | China | 1 | 8 |
| Dili | Ghana | 1 | 1 |
| Duqm | Oman | 1 | 1 |
| Taizhou | China | 1 | 1 |
| Hamriyah | United Arab Emirates | 1 | 1 |
| Callao | Peru | 1 | 1 |
| Tema | Ghana | 1 | 1 |
| Penang | Malaysia | 1 | 1 |
| Dongshan | China | 1 | 6 |
| Longhai | China | 1 | 1 |
| Luoyuan | China | 1 | 1 |

# END NOTES

1        "What is forced labour, modern slavery and human trafficking." International Labour Organization, 2020, www.ilo.org/global/topics/forced-labour/definition/lang--en/index.htm.

2        "Maritime Zones and Boundaries." Office of General Counsel, National Oceanic and Atmospheric Administration, 1 March 2019, https://www.gc.noaa.gov/gcil_maritime.html.

3        "Jurisdiction Over Vessels." Office of General Counsel, National Oceanic and Atmospheric Administration, 20 September 2019, www.gc.noaa.gov/gcil_jurisdiction.html.

4        *AGREEMENT ON PORT STATE MEASURES TO PREVENT, DETER AND ELIMINATE ILLEGAL, UNREPORTED AND UNREGULATED FISHING.* Food and Agriculture Organization of the United Nations, 2016, www.fao.org/3/i5469t/I5469T.pdf.

5        Ibid.

6        *Apostleship of the Sea.* Apostleship of the Sea, 2020, www.apostleshipofthesea.org.uk/.

7        "Fisheries." International Transport Workers' Federation, www.itfseafarers.org/en/issues/fisheries.

8        "Hard to see, harder to count - Survey guidelines to estimate forced labour of adults and children". International Labour Office, International Labour Organization, 2012, www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_182096.pdf.

This document defines forced labor as "all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily" and presents indicators for identifying forced labor. C4ADS applied this definition and the associated indicators of forced labor to identify the cases of forced labor used in this analysis.

9        A year was chosen as the default case timeframe given that many fishers' contracts stipulate a one-year working period. This decision is bolstered by the finding that the average case length in this dataset for forced labor cases with a known beginning date and a known ending date is 11 months.

10      AIS transmission is susceptible to manipulation through identity tampering, location falsification, and non-transmission, creating challenges in identifying illicit behavior in the maritime space. As this study only examines vessel behavior by vessels that are identifiable and conduct port calls, non-transmission and identity tampering are likely to have decreased the number of vessels analyzed and may skew the results if excluded vessels engage in unique patterns of behavior. C4ADS attempted to address this issue by including vessels that made port calls as identified through victim testimony or public reporting.

11      One notable bias in the data is that a large majority of cases involve Indonesian fishers, beyond what may be expected in a random sample.

12      In several cases, vessels visited multiple Chinese ports or a single Chinese port with a relatively high frequency, which occurred less frequently in cases that had a port call in Taiwan.

13      Taiwanese vessels are overrepresented in this dataset compared with the greater C4ADS Forced Labor in Fishing Case Database, which may increase the prevalence of port calls in Taiwan.

14      Bukharin, Irina. "Who Can Combat Forced Labor at Sea?" C4ADS, February 2020, https://c4ads.org/blogposts/forced-labor-at-sea.

15      Ibid.

16      "The People's Republic of China." *Fishery and Aquaculture Country Profiles*, Food and Agriculture Organization of the United Nations, December 2017, www.fao.org/fishery/facp/CHN/en.

17      Shaver, Amanda and Yozell, Sally. "Shining a Light: The Need for Transparency across Distant Water Fishing." The Stimson Center, 2019, www.stimson.org/2019/shining-light-need-transparency-across-distant-water-fishing/.

18      The Stimson Center reported that the ports most used by major distant water fishing fleets from 2016 to 2017 were Dakar, Senegal; Conakry, Guinea; Majuro, Marshall Islands; Suva, Fiji; and Nouadhibou, Mauritania, none of which are in the top five ports identified in this analysis. Furthermore, the top ports used by these fleets after fishing activities were Suva, Fiji; Majuro, Marshall Islands; Dakar, Senegal; Port Louis, Mauritius; and Yaizu, Japan, none of which are in the top five ports identified in this analysis.

19      "AIS Transponders." International Maritime Organization, 2020, www.imo.org/en/OurWork/Safety/Navigation/Pages/AIS.aspx. Accessed 16 June 2020.

20      "Hard to see, harder to count - Survey guidelines to estimate forced labour of adults and children". International Labour Office, International Labour Organization, 2012, www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_182096.pdf. Accessed 16 June 2020.

21      "Jurisdiction Over Vessels." Office of General Counsel, National Oceanic and Atmospheric Administration, 20 September 2019, www.gc.noaa.gov/gcil_jurisdiction.html. Accessed June 16, 2020.

22      "What is forced labour, modern slavery and human trafficking." International Labour Organization, 2020, www.ilo.org/global/topics/forced-labour/definition/lang--en/index.htm. Accessed 16 June 2020.

23      Windward.

24      "Jurisdiction Over Vessels." Office of General Counsel, National Oceanic and Atmospheric Administration, 20 September 2019, www.gc.noaa.gov/gcil_jurisdiction.html.

25      "Background." *Agreement on Port State Measures*, Food and Agriculture Organization of the United Nations, www.fao.org/port-state-measures/background/en/.

26      Ranked by number of cases.