The Illegal, Unreported and Unregulated Fishing Index

GLOBAL INITIATIVE
AGAINST TRANSNATIONAL
ORGANIZED CRIME

POSEIDON
AQUATIC RESOURCE MANAGEMENT

The Illegal, Unreported and Unregulated Fishing Index 2021

DECEMBER 2021

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Acronyms

AIS - Automatic identification systems

CMM - Conservation and management measure

EEZ - Exclusive economic zone

EU - European Union

FAO - Food and Agriculture Organization (of the UN)

FMC - Fisheries monitoring centre

FoC - Flag of convenience

HSVAR - High seas vessel authorization record

IPOA - International plan of action (to prevent, deter and eliminate illegal, unreported and unregulated fishing)

IUU - Illegal, unreported and unregulated (fishing)

MCS - Monitoring, control and surveillance

MSC - Marine Stewardship Council

NOAA - National Oceanic and Atmospheric Administration

NPOA-IUU - National plan of action (to prevent deter and eliminate illegal, unreported and unregulated fishing)

RAV - Record of authorized vessels

RFMO - Regional fisheries management organization

SDG - Sustainable Development Goal

TMT - Trygg Mat Tracking

UNCLOS - United Nations Convention on the Law of the Sea

UNFSA - United Nations Fish Stocks Agreement

VMS - Vessel monitoring system

Citation

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Executive summary

About the IUU Fishing Index

The IUU Fishing Index was launched in early 2019 as a way of benchmarking and ranking countries for their vulnerability to, prevalence of and response to illegal, unreported and unregulated (IUU) fishing. The dedicated IUU Fishing Index website (www.iuufishingindex.net) provides maps to visualize scores by indicator type and responsibility. Individual country profiles provide scores for each indicator for the country concerned and show how the country's scores compare with the average scores for the region and the ocean basin(s) in which the country is located.

Since its launch the Index has been widely used by:

- Donors to inform the allocation of spending on projects to combat IUU fishing.

- Seafood buyers seeking to ensure their purchases of seafood are from legal sources.

- Trade agencies looking to incorporate the risk of fish from IUU sources entering national markets.

- Aquaculture certification standards as part of risk assessment of the origin of raw material being used in aquaculture feed.

- Countries and regional fisheries organizations in assessing IUU risk, benchmarking country performance and tracking change in indicators used in the Index.

- Academics as part of research projects and as a data source for publications focusing on fisheries sustainability and IUU fishing, but also on wider issues such as human trafficking and security threats where risks of IUU fishing may also increase risks in these other areas.

- Civil society in advocacy work to highlight and combat IUU fishing.

The usefulness of the Index to its users is enhanced when indicator scores remain up to date. The Index has therefore been updated in 2021. This report provides the results of the 2021 update, and the Index website also provides 2021 indicator scores. Both this report and the website allow for a comparison of scores and performance between the 2019 and 2021 datasets.

The continued relevance of the Index is that:

- There continues to be a lack of reliable estimates of IUU fishing covering all countries and using a standardized methodology to generate comprehensive and reliable figures of volumes and values for IUU fish catches. While the Index scores do not provide a measure of the volume or value of the IUU fish catch, they do provide a standardized measure of the degree to which states are vulnerable to and effectively combat IUU fishing, thus providing a measure of the risk that IUU fishing may be occurring.

- Despite many recent actions that have been taken at international, regional and national levels to reduce IUU fishing, malpractice remains a serious concern. The target to eliminate IUU fishing by 2020, associated with indicator 14.6.1 of the Sustainable Development Goal (SDG) 14 'Life Below Water', has not been achieved. It is therefore important to have an up-to-date assessment that tracks the current risk of IUU, and how the level of risk has changed over time.

- Incentives for IUU fishing are considerable, given the financial benefits that can be generated by both large- and small-scale fishing operations in both developed and developing countries. The negative impacts of IUU fishing are manifold, including the depleting environmental impact on fish stocks; the impact on fisheries management through impaired scientific research; and the profound social and economic impacts on communities, the fisheries sector as a whole and consumers.

This IUU Fishing Index covers all 152 coastal countries of the world, and for each country a score is calculated based on a suite of 40 indicators. These relate to the prevalence of IUU fishing in each country and the country's vulnerability and response to it, as assessed according to the country's coastal, flag, port and general state responsibilities. The database underpinning the IUU fishing scores in 2021 contains 5 681 separate data entries, based on both publicly available data and expert opinion, with a high (98%) completion rate across all indicators and countries.

The methodology used for the 2021 version of the Index remains the same as for the 2019 version, with one exception. In the 2019 Index, indicator 7 assessed 'authorized vessel data provided to FAO HSVAR'. Given how few countries provide data to FAO under the FAO Compliance Agreement, this indicator had become of limited value by 2021. It also generated a semantic overlap with the provision of vessel data to the FAO's Global Record covered by indicator 8. The latter, which is now being afforded much more attention by flag states, diminished the justification to maintain the FAO HSVAR indicator as part of the Index. Concurrently, there has been growing recognition in recent years regarding the risks of IUU fishing generated by vessels flying flags of convenience (FoC) and the need for flag states to avoid flagging vessels whose beneficiary ownership falls outside of the flag state's jurisdiction. The 2019 edition of the Index did not include any indicators related to FoCs. It was thus decided in 2021 to switch indicator 7 to focus on the FoC issue, and to include an indicator covering 'Registered vessels with foreign or unknown ownership'. Like the FAO HSVAR indicator, this new indicator is a flag state response indicator as there are achievable and realistic steps that FoC states can take to reduce FoCs and increase transparency over ownership and re-flagging details of vessels on flag state registers.

Given that the change only affects one of 40 indicators and both the old and new indicator are weighted as 'low', the indicator switch does not significantly affect the comparability of scores between the 2019 and 2021 Index versions. The change does however serve to increase the robustness of the Index as a whole.

The 2021 Index scores and their implications

The global score across all state responsibilities and types of indicators is 2.24, down from 2.29 in 2019, representing a small improvement (scores closer to 1 indicate better performance). Individual country scores range from 3.86 for China (the worst) to 1.62 for both Estonia and Finland (the best). **Ninety-three countries improved their scores** between 2019 and 2021, two countries had the same score and 57 countries had a worse score. **Countries with the largest improvements in their scores were** Vietnam, Cambodia, Sudan, Cameroon and Sierra Leone. Those with the largest negative changes were Eritrea, South Korea, Mauritania, Costa Rica and Equatorial Guinea.

A key finding from comparing 2021 scores with those in 2019 is that countries can reduce the potential risk of IUU fishing by undertaking various steps. However, it is noted that while Index scores do improve for countries signing up to international agreements or adhering to best practice,[1] real-world reductions in the levels of IUU fishing also require the actual and practical implementation of such agreements and the fulfilment of obligations incumbent upon countries committing to them.

When considering the ranking of all countries in 2021 compared to 2019, **countries improving their ranking the most were** Guinea, Cameroon, Sri Lanka, Portugal and the Cook Islands. The **countries showing the greatest drop in overall rank** were Argentina, Mauritania, Guatemala, United Arab Emirates and Equatorial Guinea.

The tables below highlight the regions and ocean basins of most concern in terms of risks of IUU fishing, for different combinations of indicators related to state responsibilities and indicator types.

In terms of regions, in 2019 Asia was of special concern with the highest/worst scores for all four types of state responsibility indicators, and the worst overall scores for indicators aggregated by responsibility and type. The 2019 Index scores also implied the need for action in the Western Pacific, the West Indian Ocean and the East Indian Ocean basins.

The Index scores in 2021 provide a more diverse picture in terms of the regions and ocean basins of concern, as reflected below. Although Asia remains the region of most concern when considering all indicators aggregated by responsibility and type, Africa as a region has become more prominent in 2021 as an area of concern for indicators related to coastal responsibility. The Eastern Pacific (high vulnerability) has become of greater concern as an ocean basin compared to 2019. The Middle East remains a region of specific concern in terms of response, potentially because of the low importance attributed to the sector by countries, signalling weak policy focus on the fisheries sector.

Worst-performing regions and ocean basins by indicator group in 2019

		Type			
		Vulnerability	**Prevalence**	**Response**	**Overall**
Responsibility	**Coastal**	· Oceania / Western Pacific	· Asia / East Indian Ocean	· Caribbean and Central America / East Indian Ocean	· Asia / Western Pacific
	Flag	· North America / Eastern Pacific	· Asia / Western Pacific	· Middle East / Western Pacific	· Asia / Western Pacific
	Port	· North America / East Indian Ocean	· Asia / Western Pacific	· Middle East / West Indian Ocean	· Asia / Western Pacific
	General	· Asia / East Indian Ocean	· Asia / East Indian Ocean	· Middle East / West Indian Ocean	· Asia / East Indian Ocean
	Overall	· North America / Western Pacific	· Asia / Western Pacific	· Middle East / West Indian Ocean	· Asia / East Indian Ocean

Worst-performing regions and ocean basins by indicator group in 2021

		Type			
		Vulnerability	**Prevalence**	**Response**	**Overall**
Responsibility	**Coastal**	· *North America / Western Pacific*	· *Africa / West Indian Ocean*	· Caribbean and Central America / *West Atlantic*	· *Africa / West Indian Ocean*
	Flag	· North America / Eastern Pacific	· Asia / Western Pacific	· Middle East / *West Indian Ocean*	· Asia / Western Pacific
	Port	· North America / *Eastern Pacific*	· Asia / Western Pacific	· Middle East / West Indian Ocean	· *Middle East / West Indian Ocean*
	General	· Asia / East Indian Ocean	· *North America / Eastern Pacific*	· Middle East / West Indian Ocean	· Asia / *West Indian Ocean*
	Overall	· North America / *Eastern Pacific*	· Asia / Western Pacific	· Middle East / West Indian Ocean	· Asia / *Western Pacific*

Note: Regions and oceans entering this table in 2021 that were not the worst performing in 2019 are shown in italic.

The aggregated scores for all countries in a region or ocean basin can obscure the risk of IUU fishing in specific countries, and the need for action in such countries. **The tables below show the countries that have the worst scores for different indicator groups in 2019 and in 2021**. The maps, ranking tables and country profiles on the IUU Fishing Index website provide indicator scores for all individual countries for different combinations of indicator groups. In 2019, China, Taiwan, Indonesia, Russia, Vietnam and Cambodia were countries of particular concern. In 2021, China, Taiwan, Vietnam and Russia remained countries of high overall risk, while Ecuador, Eritrea, South Korea, Somalia and Yemen also gained prominence in terms of poor scores.

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[1] For example through ratification of the Port States Measures Agreement, or provision of vessel data to FAO's Global Record.

Worst-performing countries by indicator group in 2019

		Type			
		Vulnerability	**Prevalence**	**Response**	**Overall**
Responsibility	**Coastal**	• Japan • Kiribati • Seychelles	• Ecuador • Philippines • Sierra Leone (+ 3 others)	• Timor Leste • Cambodia • Cameroon (+ 6 others)	• Cambodia • Somalia • Vietnam
	Flag	• China • France • Japan (+ 4 others)	• China • Taiwan • Panama	• Singapore • China • Libya/Russia	• China • Taiwan • Panama
	Port	• Canada • China • France (+ 9 others)	• China • Taiwan • Vietnam	• Bahrain • Benin • Brunei (+ 19 others)	• China • Russia • Cambodia
	General	• India • Vietnam • Indonesia	• Thailand • Vietnam • Mexico	• Singapore • Grenada • Yemen	• Vietnam • Comoros • Cambodia
	Overall	• China • Japan • Russia	• China • Taiwan • Vietnam	• Singapore • Cambodia • Yemen	• China • Taiwan • Cambodia

Notes: Countries with the same scores in rankings are listed alphabetically. Where more countries than shown in the table have the same score, the number of additional countries is provided in brackets.

Worst-performing countries by indicator group in 2021

		Type			
		Vulnerability	**Prevalence**	**Response**	**Overall**
Responsibility	**Coastal**	• Japan • China • France	• Seychelles • Ecuador • Guinea Bissau (+ 4 others)	• Argentina • Congo, R. • Benin (+ 2 others)	• Congo, R. • Seychelles • Equatorial Guinea (+ 2 others)
	Flag	• China • France • Japan (+ 4 others)	• China • South Korea • Taiwan	• Russia • Guinea-Bissau • Libya	• China • Taiwan • Russia
	Port	• Canada • China • France (+ 9 others)	• China • Thailand • Uruguay	• Bahrain • Brunei Darussalam • China (+ 7 others)	• China • South Africa • Singapore
	General	• Vietnam • India • Indonesia	• Mexico • China • Ecuador (+ 1 other)	• Singapore • Eritrea • Israel	• Somalia • China • Eritrea (+ 1 other)
	Overall	• China • Japan • USA	• China • South Korea • Taiwan	• Eritrea • Singapore • Yemen	• China • Russia • Korea (Rep. South)

Note: Countries with the same scores in rankings are listed alphabetically. Where more countries than shown in the table have the same score, the number of additional countries is provided in brackets

Developing countries are often especially vulnerable to IUU fishing. In addition, these countries also often lack the resources to fully respond to the challenges of combating IUU fishing. This means that mechanisms need to be established that support developing countries in their drive to combat IUU fishing across applicable state responsibilities.

Nations operating distant-water fishing fleets that yield poor scores for both flag state/prevalence and flag state/response indicators may be considered as particularly problematic. Solving their poor performance would go a long way to eliminate IUU fishing globally, and there is a pressing need to hold these countries to account for their actions (or lack thereof), to monitor progress and to take remedial action where appropriate.

The summary insights flowing from this first update of the Index underline that **IUU fishing is a dynamic issue, and that the updates of the IUU Fishing Index will help to track these dynamics** in a meaningful way at the global scale.
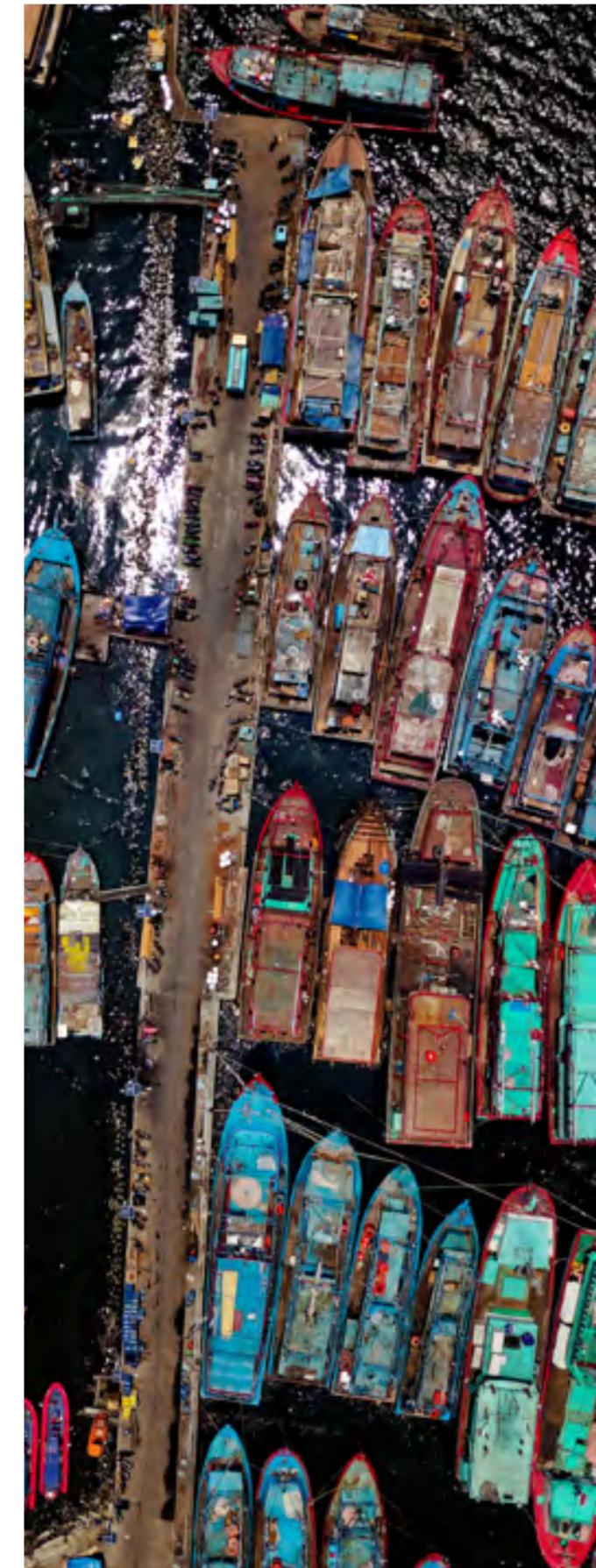
Introduction

1

1. Introduction

1.1 Background

Annual global production from capture fisheries has remained largely stable for several years and totalled 96.4 million tonnes in 2018,[2] with 84.4 million tonnes being produced from marine fisheries and 12.0 million tonnes from inland fisheries. The fishing sector is a multi-billion-dollar business, with around 40 million people employed in capture fishing, plus many millions more in upstream businesses supplying inputs and in downstream seafood processing, trade and distribution. Activities range from individual entrepreneurs operating small, unmotorized dugout canoes, mainly for sustenance, to large, vertically integrated fishing companies, with single vessels valued at over US$70 million that move between fishing zones around the world. Such companies have millions of dollars invested in processing plants and trade their products into globalized markets.

Fish is a highly traded commodity and one of the most traded and valuable segments of the world food sector. Around 35% of fish harvested (by live weight equivalent) is exported, and in 2018 the value of world exports of fish and fish products rose to US$164 billion, up from US$143 billion in 2016.[3] Different fish species have very different unit values, with some individual tuna selling for tens of thousands of dollars to sashimi markets, while small pelagic species, such as sardine and mackerel destined for canneries, may be sold for as little as US$100–200 per tonne. But, even taking into account these low-value species, the large volumes of fish caught mean the value of fish landed from a single fishing trip aboard some of the world's largest vessels can run into the millions of US dollars.

These figures show that the incentives for illegal fishing are considerable. These incentives exist both in large-scale and small-scale fishing operations, and illegal fishing represents a major threat to the sustainable exploitation of the world's fish stocks. The negative impacts of IUU fishing are not just environmental, but also have profound social and economic impacts on communities, the wider supply chain and seafood sector, and ultimately consumers.

Since the mid-1990s, many actions have been undertaken at international, regional, national and local levels to eliminate IUU fishing. These have included international and regional agreements (voluntary and binding), improvements in monitoring, control and surveillance (MCS), sharing of intelligence and use of innovative technologies to identify and track illegal vessel activity. Despite these actions, IUU fishing remains a significant problem, and this Index clearly establishes that the target of eliminating IUU fishing by 2020 (indicator 14.6.1 of SDG 14 'Life Below Water') has not been achieved.

1.2 Why have an IUU Fishing Index?

Given the persistent concerns surrounding IUU fishing, several studies in recent years have attempted to measure and report on the extent of the problem. Perhaps the most widely quoted is a study from 2009, 'Estimating the worldwide extent of illegal fishing',[4] which estimated that the volume of IUU-caught fish in 2003 was equivalent to between 11% and 19% of reported catches, or 10 million to 26 million tonnes of fish, with a value of between US$10 billion and US$23 billion. However, the age of that study (and its use of 2005 data), the wide range between the upper and lower estimates, the lack of country-specific estimates and concerns over the raising factors used to generate the global estimate mean that it is of little practical use beyond the fact that it provided a much-needed wake-up call regarding the magnitude of the problem. More recent studies of IUU fishing in specific regions, countries or fisheries are often of low quality, use different methodologies, are patchy in terms of geographical coverage and their focus is often limited to particular fisheries. Consequently, they do not provide the basis for a global estimate or allow for meaningful comparisons at the global scale.

The IUU Index was established in 2019 because of the lack of any reliable global estimates of IUU fishing at that time, or data allowing comparison between countries. It continues to be the case that no such estimates are available. The Index thus fills a critical gap in allowing countries to be benchmarked for their exposure to, and performance in combating, IUU fishing.

The IUU Index measures and maps the prevalence of IUU fishing in 152 coastal states and those states' capacity to respond to and counter the threat of IUU fishing, as well as their exposure and vulnerability to the phenomenon. It also compares the degree to which states are exposed to and combat IUU fishing risk in four key 'responsibility' domains: coastal, flag, port and general. Each maritime state has its own strengths, weaknesses, challenges and vulnerabilities when it comes to IUU fishing risk. Therefore, by combining these indicators into one comprehensive, comparative global index, practitioners and policymakers can use it as a tool to identify where interventions need to be prioritized.

Having been first launched in 2019, the 2021 update of the Index contained in this document allows not just for an assessment of the current state of affairs, but also of recent changes in global IUU fishing risk dynamics.

1.3 Methodology

The IUU Fishing Index uses 40 indicators, with each indicator applied to 152 countries with a maritime coastline. The suite of indicators provides a reliable and robust basis for an Index of IUU fishing and for assigning scores to countries.

The scores provide the basis for comparison between countries, regions and ocean basins, and serve to identify where action to combat IUU fishing is most needed.

For each country, a score is provided between 1 and 5 (1 = good/strong; 5 = bad/weak) comprised of weighted indicators belonging to different 'indicator groups'. Indicator groups relate to:

I. RESPONSIBILITIES

Coastal – indicators related to things states should do and their obligations in relation to IUU fishing that are specific to managing their exclusive economic zone (EEZ).

Flag – indicators related to things states should do and their obligations in relation to IUU fishing that are specific to vessels they flag (i.e. that are on their vessel register).

Port – indicators related to things states should do and their obligations in relation to IUU fishing that are specific to managing their ports.

General – these are indicators that are not specific to flag, coastal or port state responsibilities.

II. TYPES

Vulnerability – indicators that relate to risks that IUU fishing may occur.

Prevalence – indicators that relate to known/ suspected IUU incidents.

Response – indicators that relate to actions that set out to reduce IUU fishing.

The indicators are listed in Tables 1 and 2.

Table 1
Indicator groups and names

Indicator Group	Indicator Name
Coastal state/ Vulnerability	· Size of EEZ · Agreement over all maritime boundaries · Authorized foreign vessels to operate in EEZ · Dependency on fish for protein
Coastal state/ Prevalence	· Has MSC-certified fisheries · Views of MCS practitioners on coastal compliance incidents[5]
Coastal state/ Response	· Coastal state is contracting party or cooperating non-contracting party to all relevant RFMOs · Operate a national VMS or FMC
Flag state/ Vulnerability	· Distant-water vessels on RFMO RAVs · Distant-water vessels under several RFMOs
Flag state/ Prevalence	· Vessels on IUU lists · View of fisheries observers on flag state compliance incidents · Views of MCS practitioners on flag state compliance incidents
Flag state/ Response	· Accepted FAO Compliance Agreement · Registered vessels with foreign or unknown ownership[6] · Provision of vessel data for inclusion in Global Record · Compliance with RFMO flag state obligations · Flag state is contracting party or cooperating non-contracting party to all relevant RFMOs
Port state/ Vulnerability	· Number of fishing ports · Port visits by foreign fishing or carrier vessels
Port state/ Prevalence	· Views of MCS practitioners on port compliance incidents · View of fisheries observers on port compliance incidents
Port state/ Response	· Party to the Port State Measures Agreement · Designated ports specified for entry by foreign vessels · Compliance with RFMO port state obligations
General/ Vulnerability	· Perception of levels of corruption · Gross national income per capita · Volume of catches · Trade balance for fisheries products · Share of global imports
General/Prevalence	· 'Carded' under the EU IUU Regulation · Identified by the National Oceanic and Atmospheric Administration for IUU fishing · Mentions of IUU fishing in media reports
General/ Response	· Mandatory vessel tracking for commercial seagoing fleet · Ratification/accession of UNCLOS · Ratification of UN Fish Stocks Agreement · Mentions in media reports of combating IUU fishing · Have a national plan of action to prevent, deter and eliminate IUU (NPOA-IUU) fishing · Demand for MSC products · Market state is contracting party or cooperating non-contracting party to relevant RFMOs

[5] Those working for governments in fisheries enforcement agencies.

[6] New in 2021 edition of the Index.

TABLE 2
Number of indicators in different indicator groups and subgroups

Responsibilities	Number	% of total
Flag	10	25.0%
Coastal	8	20.0%
Port	7	17.5%
General	15	37.5%
Total	**40**	

Types	Number	% of total
Vulnerability	13	32.5%
Prevalence	10	25.0%
Response	17	42.5%
Total	**40**	

Subgroups	Number	% of total
Flag vulnerability	2	5.0%
Flag prevalence	3	7.5%
Flag response	5	12.5%
Coastal vulnerability	4	10.0%
Coastal prevalence	2	5.0%
Coastal response	2	5.0%
Port vulnerability	2	5.0%
Port prevalence	2	5.0%
Port response	3	7.5%
General vulnerability	5	12.5%
General prevalence	3	7.5%
General response	7	17.5%
Total	**40**	

All countries are assigned individual scores, with their scores also allocated to both a region and relevant ocean basin(s), to allow for analysis of Index scores by individual country, by region and by ocean basin. Scores for any region or ocean basin are the average scores of all countries in that region/ocean basin. Where countries have a coastline bordering two ocean basins, their scores are included in the averages of both ocean basins.

The database underpinning the IUU fishing scores contains 5 681 separate data entries, with a high (98%) response/completion rate across all indicators/countries. Sources of data for the indicators include a mix of publicly available sources, country correspondents for certain indicators that require factual data at country level and expert opinion. A full methodological description of the basis for selecting indicators, sources of data, thresholds used for scores between 1 and 5 for the values associated with each indicator, strengths and weaknesses of each indicator, weightings of different indicators, and other technical considerations for compiling the indicator scores and raising the IUU Index are provided in a separate methodological paper published on the IUU Fishing Index website (**www.iuufishingindex.net/methodology**).

The methodological paper acknowledges and discusses weaknesses of the Index and its indicators. No composite indicator, or index, can ever be 'perfect' and render through a score – or series of scores – a comprehensive and unfailingly accurate picture of a complex real-world situation. An index always remains an approximation and will always resonate more with the real-world situation on the ground in some instances and less in others.

Indicators groups and names

How to read this diagram

Type related
arrow head shape

Vulnerability
Prevalence
Response

Weighting
radius lenght

Low
Medium
High

COASTAL STATE

Size of EEZ
Agreement over all maritime boundaries
Dependency on fish for protein
Authorize foreign vessels to operate in EEZ
Views of MCS practitioners on coastal compliance incidents
Has MSC-certified fisheries
Operate a national VMS/FMC centre
Coastal State is contracting party or cooperating non-contracting party to all relevant RFMOs

FLAG STATE

Distant water vessels on RFMO RAVs
Distant water vessels under several RFMOs
View of fisheries observers on flag state compliance incidents
View of fisheries observers on flag state compliance incidents
Views of MCS practitioners on flag state compliance incidents
Compliance with RFMO flag state obligations
Provision of vessel data for inclusion in Global Record
Flag State is contracting party or cooperating non-contracting party to all relevant RFMOs
Accepted FAO Compliance Agreement
"Registered vessels with foreign or unknown ownership"

PORT STATE

Number of fishing ports
Port visits by foreign fishing or carrier vessels
Views of MCS practitioners on port compliance incidents
View of fisheries observer on port compliance incidents
Designated ports specified for entry by foreign vessels
Compliance with RFMO port state obligations
Party to the PSMA

GENERAL STATE

Market State is contracting party or cooperating non-contracting party to relevant RFMOs
Ratification/accession of UNCLOS Convention
Ratification/accession of UNFSA
Mentions in media reports to combatting IUU fishing
Demand for MSC products
Mentions in media reports to combatting IUU fishing
Mandatory vessel tracking for commercial seagoing fleet
Trade balance for fisheries products
Identified by NOAA for IUU fishing
Mentions of IUU fishing in media reports
Trade balance for fisheries products
Share of global imports
Volume of catches
Gross national income per capita
Perception of levels of corruption

Introduction to the results

2

2. Introduction to the results

2.1 Structure of this report

Results for this 2021 update of the Index follow the 2019 outline, and the report is organized into sections as follows:

Section 3 provides overall results for the combined flag, coastal, port and general indicators, highlighting best- and worst-performing countries and exploring differences in scores between regions and ocean basins.

Section 4 provides results pertaining to **coastal** states, presenting data on scores by type (i.e. vulnerability, prevalence and response), and highlighting geographical differences.

Section 5 provides results pertaining to **flag** states, presenting data on scores by type and highlighting geographical differences.

Section 6 provides results pertaining to **port** states, presenting data on scores by type and highlighting geographical differences.

Section 7 provides results pertaining to **general** indicators not specific to other responsibilities, presenting data on scores by type and highlighting geographical differences.

Section 8 highlights key findings arising from the 2021 results.

Section 9 provides an introduction to the IUU Fishing Index website (**www. iuufishingindex.net**).

2.2 Comments on interpretation of scores

The main use of the IUU fishing scores is to allow for a comparison between countries, regions and ocean basins for single indicators or for different indicator groups. This enables users of the Index to identify more/less affected countries/regions/ocean basins and to determine where action to combat IUU fishing is most needed. The scores in 2021 are also useful as a way of assessing change that may have occurred since 2019.

Scores between indicator groups are not directly comparable because the

specification thresholds and weightings differ between indicator groups. So, for example, a score of 2.5 for coastal state indicators is not directly comparable with a score of, say, 2.2 for port state indicators, and does not imply that coastal state performance is worse than port state performance, or that there is a need to focus more effort on coastal state performance than on port state performance.

The scores for countries contained in the Index are not a proxy for volumes and values of IUU harvests. They represent a standardized performance score related to the 40 indicators included in the Index. The scores therefore represent a unified measure of vulnerability, prevalence and response across different state responsibilities.

The IUU fishing country scores cannot and should not be used with any algorithm to generate estimated volumes and values of IUU fish catch for different countries.

Scores of 1 for vulnerability, prevalence and response indicators do not imply that a country has no vulnerability and no IUU fishing, although certainly imply very good performance. Likewise, scores of 5 for response indicators do not imply that a country is doing nothing to combat IUU fishing, but clearly indicate that there are actions to tackle IUU fishing which remain unexplored, and which such countries could take.
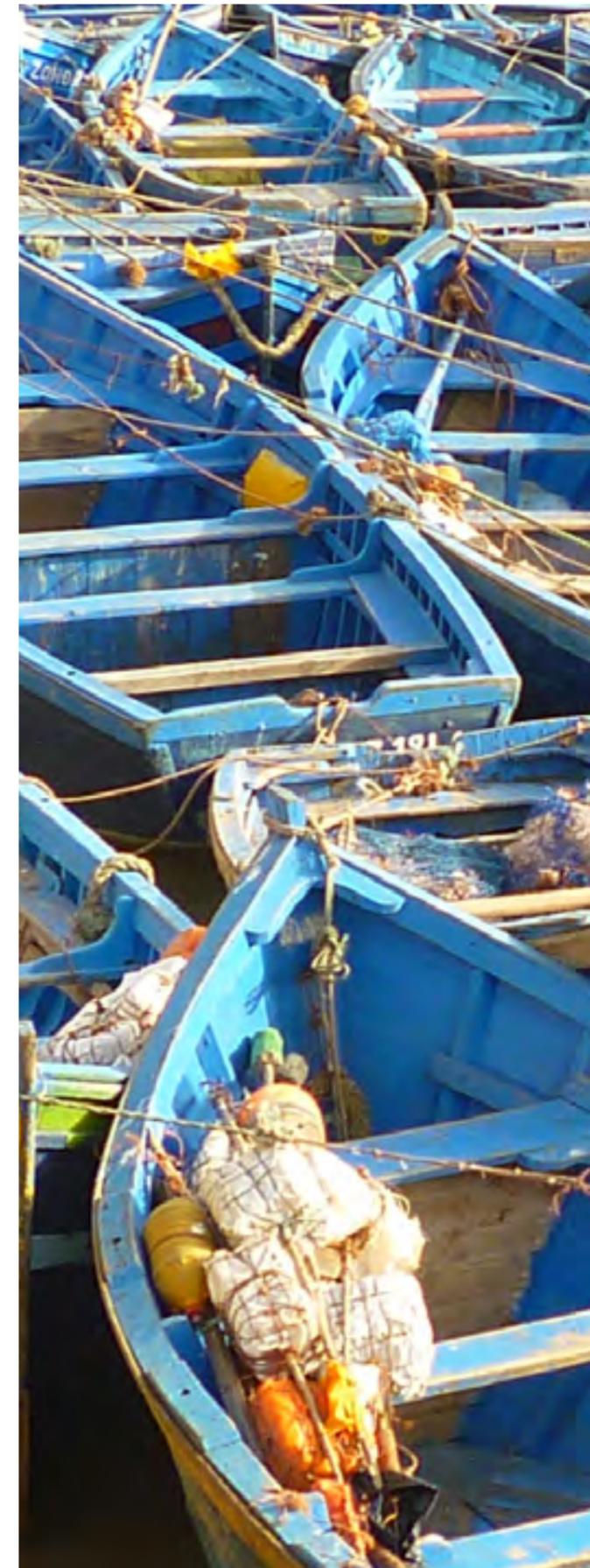
How to read the fishbone graphics used in this report

Skull and tail

Represents the overall IUU Fishing score, larger fish skull and tail showing high/poor scores
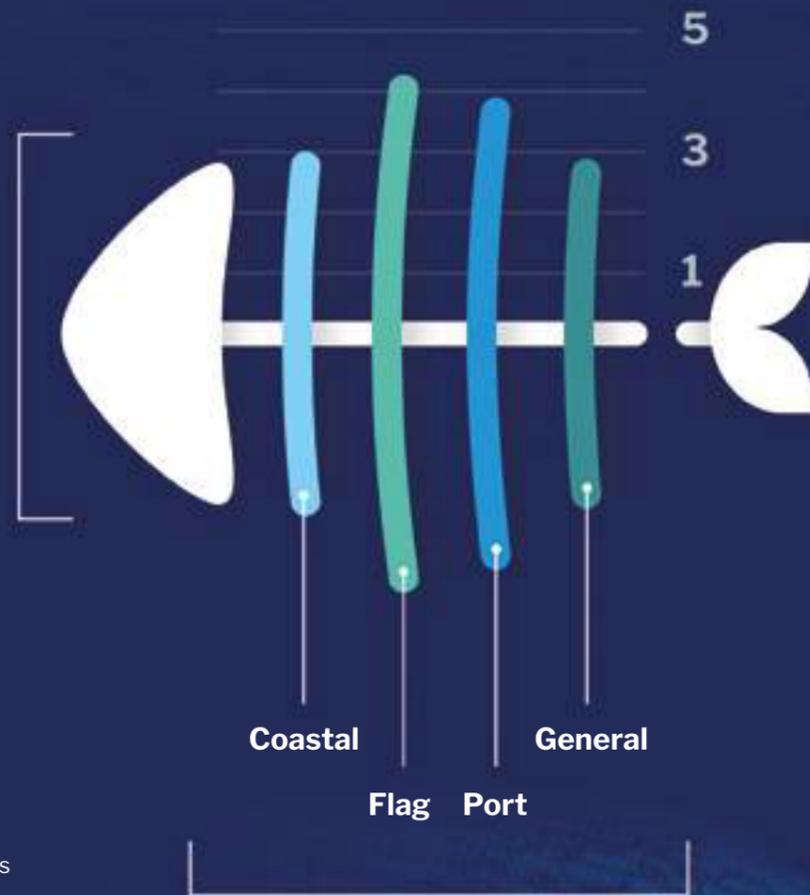
Fishbones

The fishbones represent the coastal, flag, port, and general state responsibilities, with larger fishbones showing high/poor scores.

Coastal

General

Flag   Port

IUU fishing scores combined across coastal, flag, port and general state responsibilities

3

5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
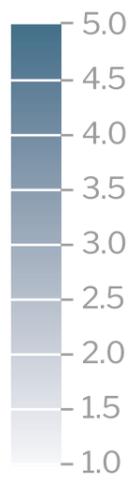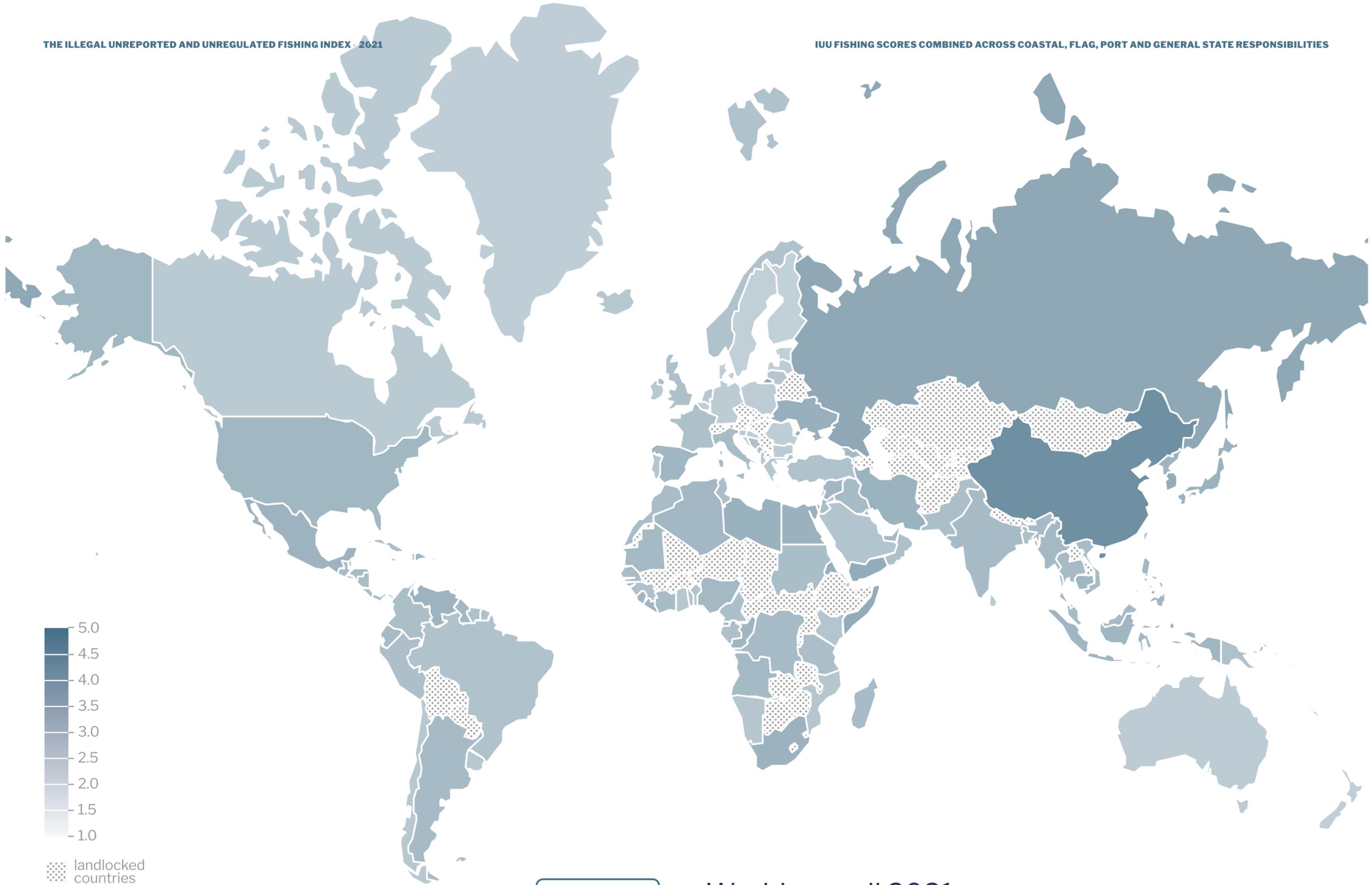
landlocked
countries

2.24 World overall 2021
IUU score

3. IUU fishing scores combined across coastal, flag, port and general state responsibilities

3.1 Introduction and distribution of scores

The distribution of individual country scores aggregated by indicator responsibility (shown below) indicates that no countries have scores of over 4.00 or below 1.50. Many countries (113 or 74%) fall within the 2.00 to 2.99 score boundaries. When the scores aggregated by responsibility are broken down by indicator type (vulnerability, prevalence and response), scores for countries are more widely distributed for response and vulnerability indicators. Prevalence scores show a high percentage of countries (87%) falling within a score range of 1.00 to 1.99.

TABLE 3
Number of countries within score ranges for IUU fishing scores by type, aggregated across all responsibilities

Range	IUU Score Distribution	Vulnerability Score Distribution	Prevalence Score Distribution	Response Score Distribution
4.50—5.00	0	0	0	0
4.00—4.49	0	6	1	0
3.50—3.99	1	11	0	11
3.00—3.49	1	34	2	22
2.50—2.99	27	61	2	35
2.00—2.49	86	32	15	38
1.50—1.99	37	8	37	40
1.00—1.49	0	0	95	6

3.2 Key findings

The global total score in 2021 aggregated across all state responsibilities and types of indicator **is 2.24, down from 2.29 in 2019, representing a small improvement.**

Individual country scores in 2021, aggregated across all indicator responsibilities and types, **range from 3.86 for China (the worst-performing country in 2021** as well as in 2019) **to 1.62 for both Estonia and Finland (the best-performing countries).** A full list of scores for all 152 countries aggregated across responsibilities is provided in the Annex at the end of this report. The reasons underlying these scores are more fully discussed in later sections, which consider coastal, flag, port and general state responsibilities and the indicators associated with them.

When considering rankings in 2021 compared to 2019, the **countries improving their ranking the most are Guinea, Cameroon, Sri Lanka, Portugal and the Cook Islands.** The countries showing the greatest drop in their rank are Argentina, Mauritania, Guatemala, United Arab Emirates and Equatorial Guinea.

Tables 4 and 5 on the following pages show the 10 countries with the highest (worst performing) and lowest (best performing) scores for aggregated responsibilities and all types of indicators, as well as for indicators broken down by vulnerability, prevalence and response.

When considering scores aggregated across responsibilities and types of indicators compared to 2019, **remaining in the list of the 10 worst-performing countries were China, Russia, Somalia, Taiwan and Yemen**. South Korea, Ukraine, Eritrea, Egypt and Libya entered the list of worst-performing countries for the first time. Dropping out of the list of 10 worst-performing countries, and representing an **improvement in performance, were Cambodia, Liberia, Sierra Leone, Sudan and Vietnam**.

Table 4 shows that the top 10 countries in terms of vulnerability in 2021 are largely unchanged from 2019, with the exception that Philippines and Spain have dropped out and their places taken by Italy and Peru.

When considering **prevalence, five countries – South Korea, Seychelles, the USA, Senegal and Saint Vincent & the Grenadines – entered the list of worst-performing countries** in 2021 for the first time, with China, Taiwan, Vietnam, Thailand and Ecuador remaining in the worst performers.

Notable in 2021 when considering response indicators is that only Singapore, Yemen and North Korea remain in the list of worst-performing countries from 2019, with other countries entering the list for the first time, showing **that countries can worsen or improve their relative performance** in terms of their response to IUU fishing.

Seven countries remain in the list of the 10 best country performers for scores aggregated across responsibilities and types of indicators (Estonia, Finland, Poland, Sweden, Belize, Tonga and Belgium), with New Zealand, Denmark and Romania entering the top ten for the first time. **European countries continue to dominate the list of the 10 best-performing countries.**

Tables 6 and 7 show **scores by region and ocean basin**, again aggregated by responsibility and then broken down into vulnerability, prevalence and response.

Scores for the different regions when aggregated across responsibilities show small improvements in scores in 2021 for **Asia, Africa, the Caribbean and Central America, and Oceania. Asia remains the region with the worst rank/score and Europe the best, with Africa and Oceania both improving their regional rank by one place** in 2021 compared to 2019. Small movements in regional rankings are also evident for vulnerability, prevalence and response scores aggregated for all types of state responsibility, but with North America remaining the most vulnerable, Asia still having the worst rank and score for prevalence indicators and the Middle East having the worst rank and score for response indicators (as it did in 2019).

The 2021 scores for the different ocean basins, aggregated across all responsibilities, saw the **Western Pacific with the worst rank and score overall, as well as the worst prevalence indicators**, as was the case in 2019. **The East Atlantic remains the best-performing ocean basin in 2021**. The East Indian Ocean is notable for its lower score and improved rank for response indicators.
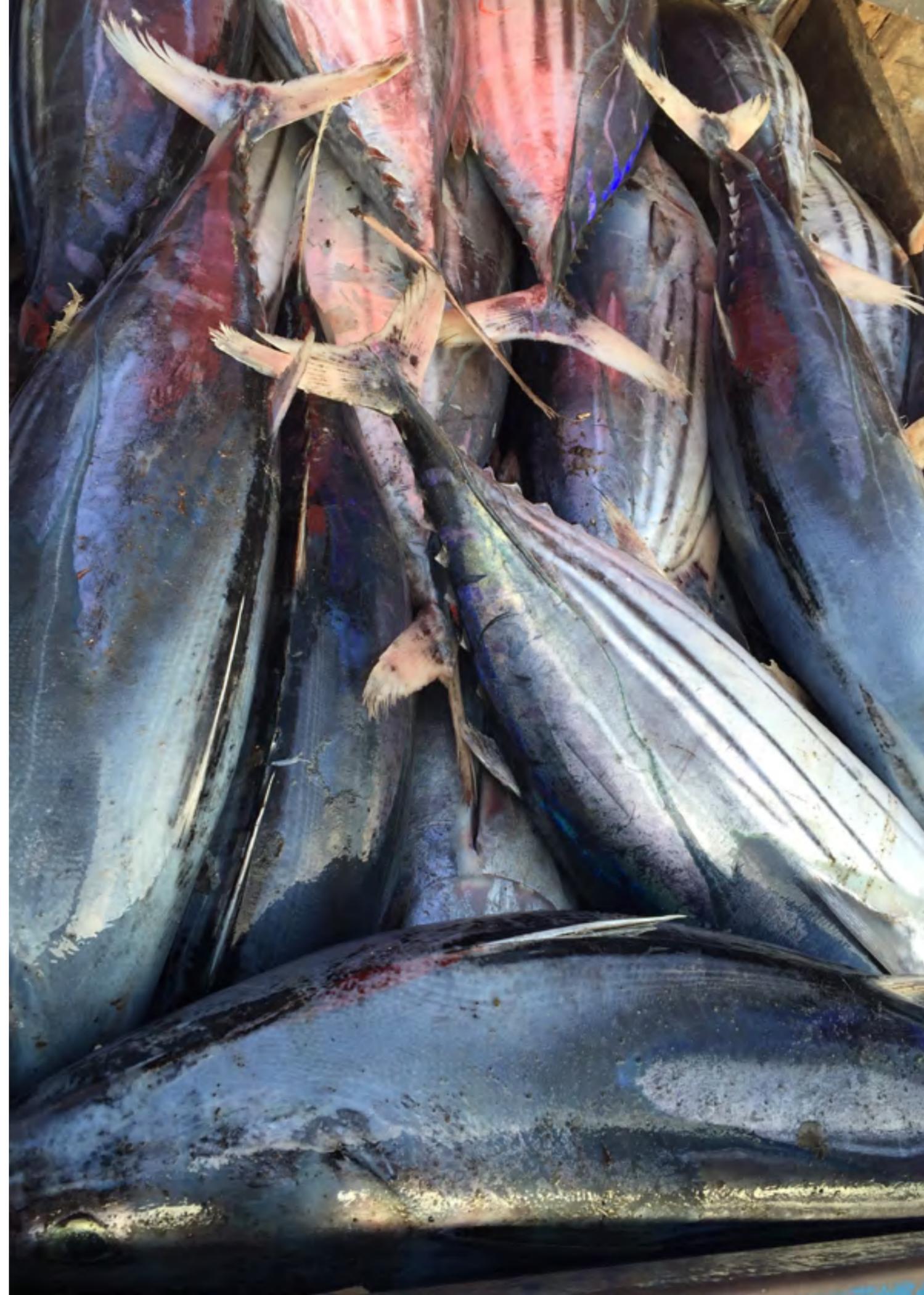
TABLE 4

Ten worst-performing countries

for IUU fishing scores by type, for all types of state responsibility

All Types

#1 China
3.86

#2 Russia
3.04

#3 Korea (Rep. South)
2.91

#4 Somalia
2.90

#5 Yemen
2.89

#6 Taiwan
2.88

#7 Ukraine
2.75

#8 Eritrea
2.75

#9 Egypt
2.70

#10 Libya
2.69

The fishbone colours, by responsibility:

● Coastal   ● Flag   ● Port   ● General
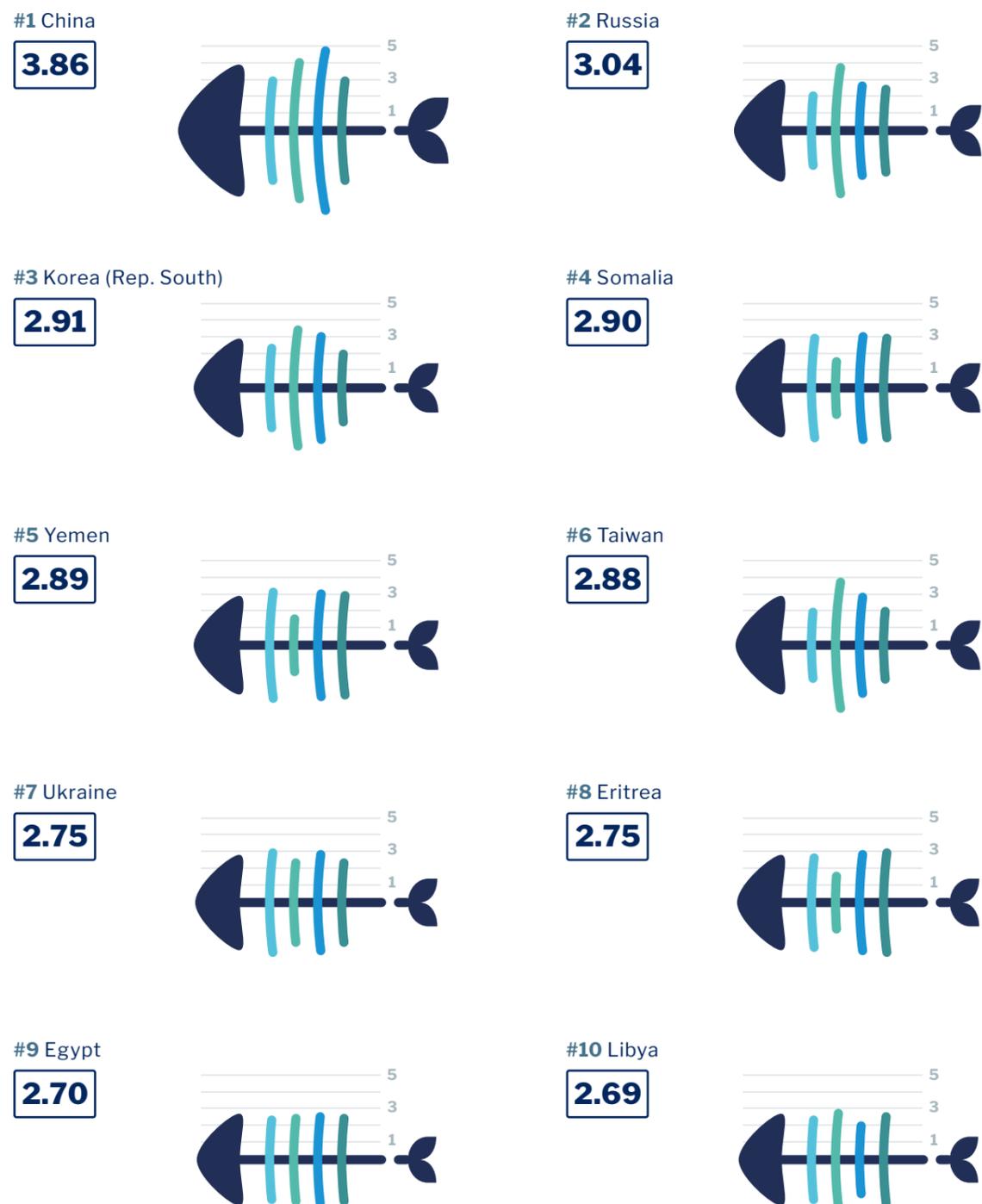
Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	China	4.32	#1	China	4.44
#2	Japan	4.28	#2	Japan	4.28
#3	USA	4.12	#3	Russia	4.22
#4	Russia	4.09	#4	USA	3.96
#5	Indonesia	4.08	#5	France	3.92
#6	Korea (Rep. South)	4.00	#6	Indonesia	3.92
#7	France	3.92	#7	Philippines	3.92
#8	Morocco	3.72	#8	S Korea	3.91
#9	Peru	3.68	#9	Spain	3.91
#10	Italy	3.64	#10	Morocco	3.84

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	China	4.19	#1	China	4.44
#2	Korea (Rep. South)	3.15	#2	Taiwan	4.28
#3	Taiwan	3.11	#3	Vietnam	4.22
#4	Thailand	2.74	#4	Thailand	3.96
#5	Seychelles	2.52	#5	Panama	3.92
#6	Vietnam	2.48	#6	Russia	3.92
#7	Ecuador	2.44	#7	Cambodia	3.92
#8	USA	2.33	#8	Sierra Leone	3.91
#9	Senegal	2.30	#9	Ecuador	3.91
#10	Saint Vincent & the Grenadines[7]	2.19	#10	Indonesia	3.84

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Eritrea	3.94	#1	Singapore	4.29
#2	Singapore	3.87	#2	Cambodia	4.00
#3	Yemen	3.83	#3	Yemen	4.00
#4	United Arab Emirates	3.82	#4	Sant Lucia	3.81
#5	Korea (North)	3.80	#5	Haiti	3.80
#6	Dominican Republic	3.80	#6	N Korea	3.75
#7	Brunei Darussalam	3.80	#7	Iraq	3.73
#8	Georgia	3.59	#8	Cameroon	3.71
#9	Bahrain	3.50	#9	Jamaica	3.71
#10	Congo, R. (+ 1 other)[8]	3.50	#10	Grenada	3.71

[7] Somalia also scores 2.19 for prevalence indicators.
[8] Dominica also scores 3.50 for response indicators.

TABLE 5

Ten best-performing countries

for IUU fishing scores by type, for all types of state responsibility

All Types

#1 Estonia
1.62

#2 Finland
1.62

#3 Sweden
1.66

#4 New Zealand
1.68

#5 Belize
1.69

#6 Denmark
1.72

#7 Belgium
1.72

#8 Romania
1.72

#9 Poland
1.73

#10 Tonga
1.73

The fishbone colours, by responsibility:

● Coastal   ● Flag   ● Port   ● General

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Germany	1.00	#1	Monaco	1.56
#2	Monaco	1.67	#2	Belgium	1.80
#3	Saint Vincent & the Grenadines	1.76	#3	Slovenia	1.80
#4	Dominica	1.80	#4	Uruguay	1.87
#5	Estonia	1.80	#5	Barbados	1.95
#6	Saint Kitts & Nevis	1.89	#6	Dominica	2.00
#7	Djibouti	1.91	#7	Estonia	2.00
#8	Barbados	1.95	#8	Latvia	2.00
#9	Finland	1.95	#9	Finland	2.05
#10	Bosnia & Herzegovina (+ 3 others)	2.00	#10	Israel	2.05

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Denmark	1.00	#1	Canada	1.00
#2	Germany	1.00	#2	Denmark	1.00
#3	New Zealand	1.07	#3	Iceland	1.00
#4	Solomon Isl.	1.07	#4	New Zealand	1.00
#5	Sweden	1.07	#5	Norway	1.00
#6	Canada	1.11	#6	Sweden	1.00
#7	Netherlands	1.11	#7	Ireland	1.07
#8	Latvia	1.15	#8	Estonia	1.15
#9	Australia	1.22	#9	Finland	1.22
#10	Finland (+ 5 others)	1.22	#10	France	1.22

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Canada	1.22	#1	Belgium	1.28
#2	Ghana	1.36	#2	Poland	1.50
#3	Australia	1.39	#3	Latvia	1.53
#4	Chile	1.39	#4	Bulgaria	1.53
#5	New Zealand	1.39	#5	Ghana	1.56
#6	Bulgaria	1.48	#6	USA	1.56
#7	Sri Lanka	1.53	#7	Australia	1.58
#8	USA	1.53	#8	Belize	1.61
#9	Iceland	1.56	#9	Iceland	1.62
#10	Romania	1.56	#10	Canada	1.64

TABLE 6

Scores for regions

by type, for all types of state responsibility

All Types

#1 Asia
2.51

#2 Middle East
2.34

#3 Africa
2.33

#4 Caribbean and Central America
2.25

#5 South America
2.23

#6 North America
2.18

#7 Oceania
2.07

#8 Europe
1.98

The fishbone colours, by responsibility:

● Coastal   ● Flag   ● Port   ● General

Vunerability

2021 rank	Country	2021		2019 rank	Country	2019
#1	North America	3.84		#1	North America	3.71
#2	Asia	3.16		#2	Asia	3.32
#3	South America	2.97		#3	Oceania	3.06
#4	Africa	2.93		#4	Africa	3.05
#5	Oceania	2.84		#5	South America	2.90
#6	Europe	2.70		#6	Europe	2.75
#7	Caribbean & Central America	2.53		#7	Middle East	2.60
#8	Middle East	2.51		#8	Caribbean and Central America	2.58
World overall		**2.82**		**World overall**		**2.91**

Prevalence

2021 rank	Country	2021		2019 rank	Country	2019
#1	Asia	1.97		#1	Asia	2.05
#2	North America	1.72		#2	Africa	1.57
#3	Africa	1.63		#3	South America	1.15
#4	South America	1.56		#4	Caribbean and Central America	1.48
#5	Oceania	1.46		#5	Oceania	1.44
#6	Caribbean & Central America	1.45		#6	North America	1.43
#7	Europe	1.35		#7	Europe	1.37
#8	Middle East	1.35		#8	Middle East	1.33
World overall		**1.55**		**World overall**		**1.54**

Response

2021 rank	Country	2021		2019 rank	Country	2019
#1	Middle East	3.12		#1	Middle East	3.24
#2	Caribbean & Central America	2.73		#2	Asia	2.77
#3	Asia	2.47		#3	Caribbean and Central America	2.70
#4	Africa	2.46		#4	Africa	2.60
#5	South America	2.25		#5	South America	2.27
#6	Oceania	2.03		#6	Oceania	2.15
#7	Europe	1.95		#7	Europe	2.10
#8	North America	1.38		#8	North America	1.60
World overall		**2.36**		**World overall**		**2.48**

TABLE 7

Scores for ocean basins
by type, for all types of state responsibility

All Types

#1 Western Pacific
2.37
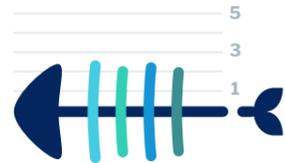
#2 West Indian Ocean
2.34

#3 Eastern Pacific
2.27

#4 West Atlantic
2.25
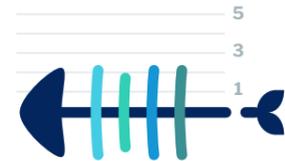
#5 East Indian Ocean
2.24
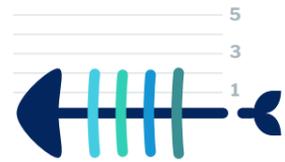
#6 Mediterranean and Black Sea
2.19
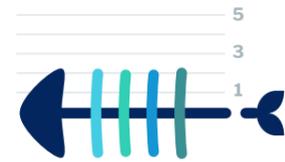
#7 East Atlantic
2.15
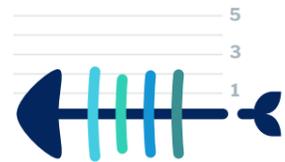
The fishbone colours, by responsibility:
● Coastal   ● Flag   ● Port   ● General

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Eastern Pacific	3.24	#1	Western Pacific	3.27
#2	Western Pacific	3.09	#2	East Indian Ocean	3.20
#3	East Indian Ocean	3.03	#3	Eastern Pacific	3.14
#4	East Atlantic	2.88	#4	East Atlantic	2.96
#5	Mediterranean & Black Sea	2.79	#5	West Indian Ocean	2.87
#6	West Indian Ocean	2.71	#6	Mediterranean and Black Sea	2.86
#7	West Atlantic	2.67	#7	West Atlantic	2.70
World overall		**2.82**	**World overall**		**2.91**

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Western Pacific	1.85	#1	Western Pacific	1.88
#2	East Indian Ocean	1.67	#2	East Indian Ocean	1.76
#3	Eastern Pacific	1.57	#3	Eastern Pacific	1.60
#4	West Indian Ocean	1.54	#4	West Indian Ocean	1.50
#5	East Atlantic	1.50	#5	East Atlantic	1.47
#6	West Atlantic	1.48	#6	West Atlantic	1.47
#7	Mediterranean & Black Sea	1.40	#7	Mediterranean and Black Sea	1.42
World overall		**1.55**	**World overall**		**1.54**

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	West Indian Ocean	2.72	#1	West Indian Ocean	2.78
#2	West Atlantic	2.58	#2	West Atlantic	2.57
#3	Mediterranean & Black Sea	2.37	#3	East Indian Ocean	2.51
#4	Western Pacific	2.28	#4	Mediterranean and Black Sea	2.51
#5	East Atlantic	2.14	#5	Western Pacific	2.41
#6	Eastern Pacific	2.14	#6	East Atlantic	2.28
#7	East Indian Ocean	2.11	#7	Eastern Pacific	2.07
World overall		**2.36**	**World overall**		**2.48**

IUU scores for coastal state responsibilities

4

5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
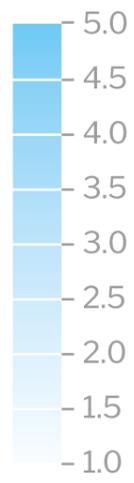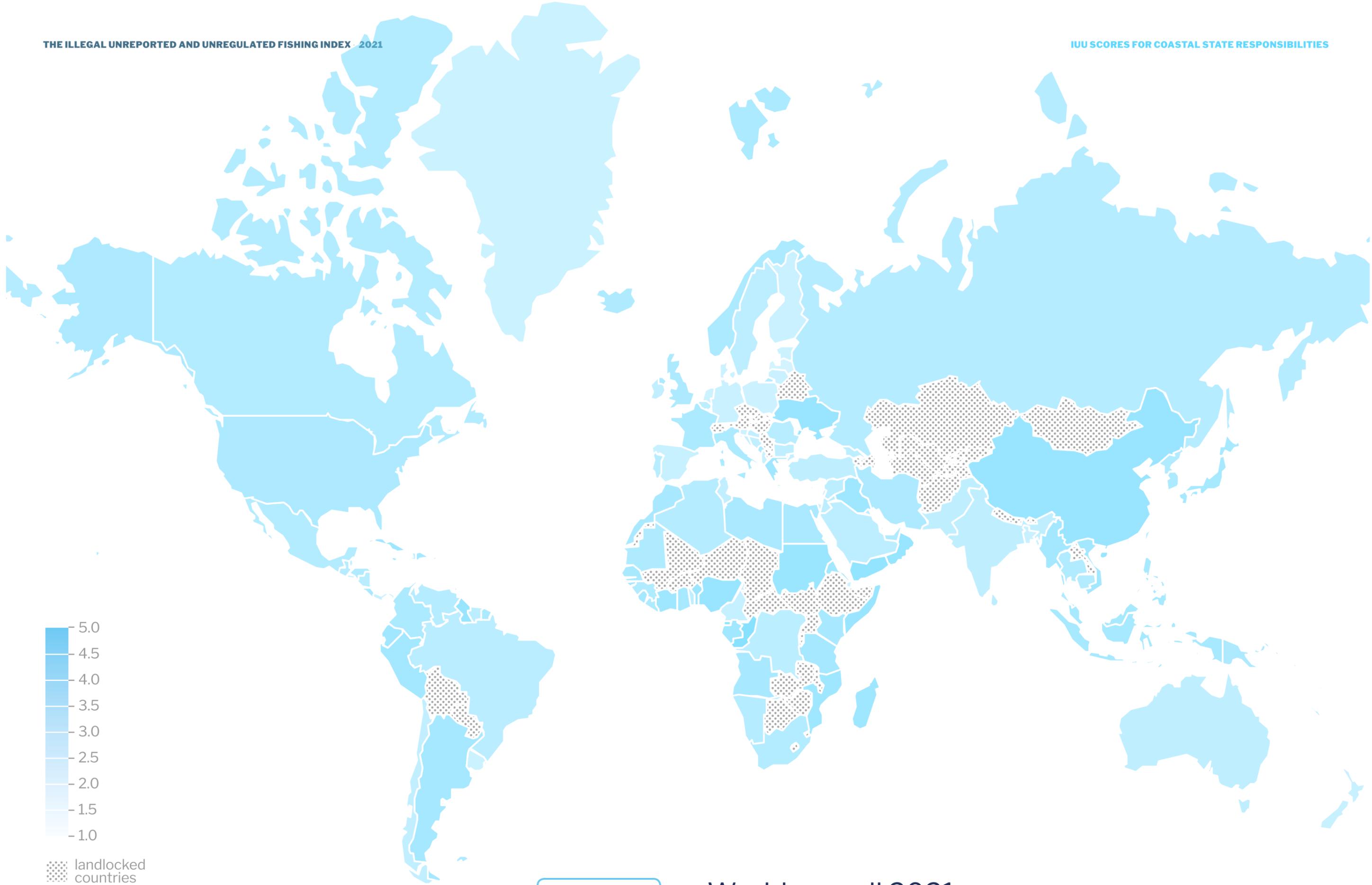
landlocked
countries

2.45 World overall 2021
Coastal score

4. IUU scores for coastal state responsibilities

4.1 Introduction and distribution of scores

Indicators included within the group of coastal state responsibilities are shown in the table below. Large EEZs, not yet having agreed all maritime boundaries, authorizing foreign vessels to fish in a state's EEZ and high dependency on fish for protein all tend to increase the risk of IUU fishing. Having MSC-certified fisheries provides an indication that actual levels of IUU fishing may be low given MSC-criteria associated with certification. And the views of those working in MCS also provide a good indication of which countries most commonly exhibit compliance incidents reflective of IUU fishing. Responses by states that can help better ensure reduced levels of IUU fishing in their EEZs include becoming a contracting party or cooperating non-contracting party to the RFMOs relevant to the ocean basins in which the state is located and establishing an FMC capable of identifying and monitoring vessel location through the use of a vessel monitoring system (VMS).

TABLE 8
Coastal state indicators.

Indicator Group	Indicator Name
Coastal state/ Vulnerability	• Size of EEZ • Agreement over all maritime boundaries • Authorized foreign vessels to operate in EEZ • Dependency on fish for protein
Coastal state/ Prevalence	• Has MSC-certified fisheries • Views of MCS practitioners4 on coastal compliance incidents
Coastal state/ Response	• Coastal state is contracting party or cooperating non-contracting party to all relevant RFMOs • Operate a national VMS or FMC

The distribution of individual country scores (see Table 9) indicates that when considering all indicator types combined for coastal state responsibilities, 149 countries (i.e. 98% of those in the Index) score between 1.50 and 3.49. Vulnerability scores are the most evenly distributed scores across the full score ranges. Prevalence and response indicators both have over 60% of countries scoring within a single score band (2.50 to 2.99 in the case of prevalence indicators, and 1.00 to 1.49 in the case of response indicators).

TABLE 9
Number of countries within score ranges for coastal state IUU fishing scores

Range	IUU Score Distribution	Vulnerability Score Distribution	Prevalence Score Distribution	Response Score Distribution
4.50—5.00	0	10	1	2
4.00—4.49	0	28	7	3
3.50—3.99	2	24	7	0
3.00—3.49	22	24	10	19
2.50—2.99	52	22	91	2
2.00—2.49	46	22	16	0
1.50—1.99	29	12	7	27
1.00—1.49	1	10	13	99

4.2 Key findings

Tables 10 and 11 on the following pages show the 10 best- and worst-performing countries in terms of coastal state responsibilities, by indicator type and scores by region and ocean basin.

The average IUU fishing score for coastal state responsibilities in 2021, aggregated for all types of indicators, **is 2.45, yielding a small improvement** from 2.51 in 2019. Overall vulnerability, prevalence and response scores have all improved slightly since 2019, indicating small but consistent global progress at the coastal state level.

Individual **country scores**, aggregated across indicator types for coastal responsibilities **range from 3.75 for the Republic of Congo** (the worst-performing country) **to 1.38 for Latvia** (the best-performing country). In 2019, Cambodia and Germany were the worst- and best-performing countries, respectively. Only Yemen remains in the 2021 list of worst-performing countries from 2019.

All of the 10 worst-performing countries in 2021 for combined indicator types are developing states (as they were in 2019), highlighting the generally heightened level of risk of IUU fishing in developing coastal states. Conversely, **European countries dominate the list of best coastal state performers** across all types (as they did in 2019).

When considering coastal state vulnerability indicators, **the most vulnerable states include developed and developing countries alike.**

Developing countries feature strongly in the countries with the worst scores for **prevalence and response**, underlining the combination of strong exposure to risk and weaker governance affecting such states.

Positive changes include an **increase in the number of countries with MSC-certified fisheries** from 33 in 2019 to 44 in 2021, although the list of MSC client countries remains dominated by developed countries.

Many of the best-performing countries in 2019 for prevalence and response remain in the list of best-performing countries in 2021, partly due to the large number of countries scoring 1.00 because there are only two coastal prevalence indicators and two coastal response indicators included in the Index.

When examined by region (Table 12), the 2021 scores reveal that **Africa has replaced Asia as the worst-performing region**, due to an increase in its prevalence score from 2.83 in 2019 to 2.99 in 2021. **Europe remains the best-performing region**.

All regions apart from Africa improved their prevalence scores in 2021 compared to 2019.

The West Indian Ocean has replaced the Western Pacific as the ocean basin with the worst score, with its score having risen from 2.63 in 2019 to 2.67 in 2021 (Table 13). The East Atlantic and Mediterranean and Black Sea oceanic basins both also had weaker scores in 2021 than in 2019.

By indicator type, ocean basins with worse scores in 2021 than in 2019 were the Eastern Pacific (for vulnerability indicators), the West Indian Ocean (for prevalence and response indicators), the East Indian Ocean (for prevalence indicators), the Mediterranean and Black Sea (for prevalence and response indicators) and the East Atlantic for response indicators.

TABLE 10

Ten worst-performing countries

for coastal state responsibility IUU fishing scores, by indicator type

All Types

#1 Congo R.

3.75

#2 Seychelles

3.50

#3 Equatorial Guinea

3.38

#4 Sao Tome & Principe

3.38

#5 Yemen

3.38

#6 Guyana

3.25

#7 Oman

3.25

#8 China

3.19

#9 Fiji

3.19

#10 Nigeria

3.19

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Japan	5.00	#1	Japan	5.00
#2	China	4.83	#2	Kiribati	5.00
#3	France	4.83	#3	Seychelles	5.00
#4	Canada	4.67	#4	China	4.83
#5	Korea (Rep. South)	4.67	#5	Fiji	4.83
#6	Mauritius	4.67	#6	France	4.83
#7	USA	4.67	#7	Philippines	4.83
#8	Russia	4.50	#8	Vietnam	4.75
#9	United Kingdom	4.50	#9	Denmark	4.67
#10	Vanuatu	4.50	#10	Mauritius	4.67

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Seychelles	5.00	#1	Ecuador	5.00
#2	Ecuador	4.40	#2	Philippines	4.40
#3	Guinea-Bissau	4.40	#3	Sierra Leone	4.40
#4	Mozambique	4.40	#4	Somalia	4.40
#5	Somalia	4.40	#5	Taiwan	4.40
#6	Tanzania	4.40	#6	Thailand	4.40
#7	Thailand	4.40	#7	Cambodia	3.80
#8	Vietnam	4.00	#8	China	3.80
#9	Cote d'Ivoire	3.80	#9	Colombia	3.80
#10	Ghana (+ 5 others)	3.80	#10	Gabon	3.80

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Argentina	5.00	#1	Timor-Leste	4.60
#2	Congo, R.	5.00	#2	Cambodia	4.20
#3	Benin	4.20	#3	Cameroon	4.20
#4	Jamaica	4.20	#4	Haiti	4.20
#5	Saint Kitts & Nevis	4.20	#5	Jamaica	4.20
#6	Equatorial Guinea	3.40	#6	Myanmar	4.20
#7	Eritrea	3.40	#7	Saint Kitts and Nevis	4.20
#8	Greece	3.40	#8	Saint Lucia	4.20
#9	Guyana	3.40	#9	Togo	4.20
#10	Iraq (+ 7 others)	3.40	#10	Albania	3.40

TABLE 11

Ten best-performing countries

for coastal state responsibility IUU fishing scores, by indicator type

All Types

#1 Latvia

1.38

#2 Estonia

1.56

#3 Poland

1.56

#4 Slovenia

1.56

#5 Djibouti

1.62

#6 Denmark

1.63

#7 Netherlands

1.63

#8 Uruguay

1.63

#9 Finland

1.69

#10 Germany

1.69

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Djibouti	1.00	#1	Djibouti	1.00
#2	Monaco	1.00	#2	Monaco	1.00
#3	Cameroon	1.17	#3	Slovenia	1.17
#4	Poland	1.17	#4	Bahrain	1.25
#5	Slovenia	1.17	#5	Belgium	1.33
#6	Bahrain	1.25	#6	Latvia	1.33
#7	Congo (DRC)	1.33	#7	Belize	1.50
#8	Dominica	1.33	#8	Estonia	1.50
#9	Latvia	1.33	#9	Germany	1.50
#10	Uruguay	1.33	#10	Lithuania	1.50

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Canada	1.00	#1	Australia	1.00
#2	Denmark	1.00	#2	Canada	1.00
#3	Germany	1.00	#3	Denmark	1.00
#4	Netherlands	1.00	#4	France	1.00
#5	Russia	1.00	#5	Germany	1.00
#6	United Kingdom	1.00	#6	Iceland	1.00
#7	Argentina	1.40	#7	Netherlands	1.00
#8	Chile	1.40	#8	New Zealand	1.00
#9	Mexico	1.40	#9	Norway	1.00
#10	New Zealand (+ 3 others)	1.40	#10	Russia	1.00

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Albania	1.00	#1	Algeria	1.00
#2	Algeria	1.00	#2	Angola	1.00
#3	Angola	1.00	#3	Australia	1.00
#4	Australia	1.00	#4	Bahrain	1.00
#5	Bahrain	1.00	#5	Barbados	1.00
#6	Bangladesh	1.00	#6	Belgium	1.00
#7	Barbados	1.00	#7	Belize	1.00
#8	Belgium	1.00	#8	Bosnia and Herzegovina	1.00
#9	Belize	1.00	#9	Brazil	1.00
#10	Bosnia & Herzegovina (+ 89 others)	1.00	#10	Bulgaria	1.00

TABLE 12

Coastal state scores for region

and indicator type

All Types

#1 Africa
2.72

#2 Oceania
2.68

#3 Asia
2.50

#4 North America
2.47

#5 South America
2.44

#6 Caribbean and Central America
2.38

#7 Middle East
2.33

#8 Europe
2.08

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	North America	4.67	#1	Oceania	4.28
#2	Oceania	3.91	#2	North America	4.20
#3	Africa	3.30	#3	Asia	3.48
#4	Asia	3.08	#4	Africa	3.37
#5	South America	3.08	#5	South America	3.00
#6	Europe	2.68	#6	Europe	2.70
#7	Caribbean & Central America	2.59	#7	Caribbean and Central America	2.67
#8	Middle East	2.49	#8	Middle East	2.44
World overall		**3.05**	**World overall**		**3.17**

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Africa	2.99	#1	Asia	3.00
#2	Asia	2.90	#2	South America	2.90
#3	Middle East	2.60	#3	Africa	2.83
#4	South America	2.58	#4	Caribbean and Central America	2.60
#5	Caribbean & Central America	2.54	#5	Middle East	2.60
#6	Oceania	2.39	#6	Oceania	2.40
#7	Europe	2.15	#7	Europe	1.99
#8	North America	1.30	#8	North America	1.80
World overall		**2.36**	**World overall**		**2.58**

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Caribbean & Central America	1.90	#1	Caribbean and Central America	2.28
#2	Middle East	1.71	#2	Asia	2.14
#3	Africa	1.70	#3	Africa	1.64
#4	South America	1.60	#4	Oceania	1.48
#5	Oceania	1.48	#5	Middle East	1.33
#6	Asia	1.34	#6	South America	1.20
#7	Europe	1.27	#7	Europe	1.18
#8	North America	1.00	#8	North America	1.00
World overall		**1.54**	**World overall**		**1.60**

TABLE 13

Coastal state scores for ocean basin

and indicator type

All Types

#1 West Indian Ocean

2.67

#2 Western Pacific

2.63

#3 West Atlantic

2.41

#4 East Indian Ocean

2.39

#5 Eastern Pacific

2.38

#6 East Atlantic

2.38

#7 Mediterranean and Black Sea

2.20

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Western Pacific	3.63	#1	Western Pacific	4.13
#2	Eastern Pacific	3.31	#2	West Indian Ocean	3.37
#3	West Indian Ocean	3.13	#3	East Atlantic	3.17
#4	East Atlantic	3.09	#4	Eastern Pacific	3.14
#5	West Atlantic	2.87	#5	East Indian Ocean	3.02
#6	East Indian Ocean	2.76	#6	West Atlantic	2.87
#7	Mediterranean & Black Sea	2.58	#7	Mediterranean and Black Sea	2.60
World overall		**3.05**	**World overall**		**3.17**

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	West Indian Ocean	2.99	#1	East Indian Ocean	2.78
#2	East Indian Ocean	2.98	#2	West Indian Ocean	2.72
#3	Western Pacific	2.61	#3	Eastern Pacific	2.67
#4	Mediterranean & Black Sea	2.52	#4	Western Pacific	2.63
#5	Eastern Pacific	2.45	#5	West Atlantic	2.61
#6	West Atlantic	2.40	#6	Mediterranean and Black Sea	2.48
#7	East Atlantic	2.40	#7	East Atlantic	2.28
World overall		**2.60**	**World overall**		**2.58**

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	West Atlantic	1.83	#1	East Indian Ocean	2.28
#2	West Indian Ocean	1.67	#2	West Atlantic	1.99
#3	East Atlantic	1.51	#3	Western Pacific	1.62
#4	Western Pacific	1.43	#4	West Indian Ocean	1.52
#5	East Indian Ocean	1.36	#5	East Atlantic	1.42
#6	Mediterranean & Black Sea	1.30	#6	Mediterranean and Black Sea	1.21
#7	Eastern Pacific	1.20	#7	Eastern Pacific	1.14
World overall		**1.54**	**World overall**		**1.60**

IUU scores for flag state responsibilities

5

5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
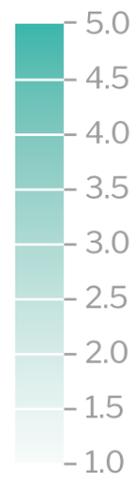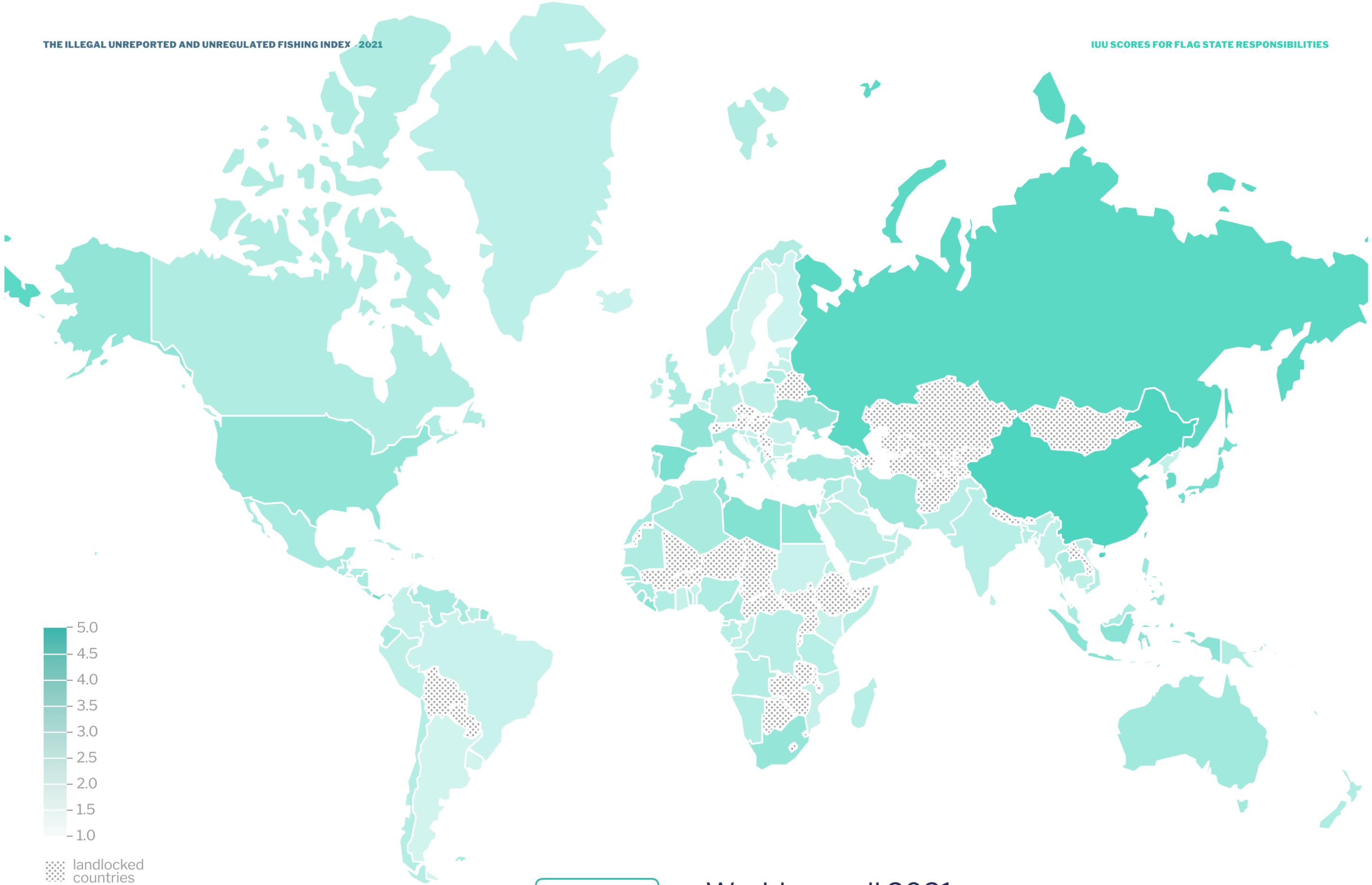
landlocked
countries

1.96

World overall 2021
Flag score

5. IUU scores for flag state responsibilities

5.1 Introduction and distribution of scores

Indicators included within the flag state responsibilities indicator group are shown in Table 14. Having vessels fishing outside of a state's own waters increases flag state vulnerability to/risk of IUU fishing. Having vessels on IUU fishing vessel lists indicates that illegal fishing is taking place by vessels flagged to given countries, and views of observers and MCS practitioners also provide an indication of IUU fishing and faltering flag state responsibility. Responses that flag states can take to combat IUU fishing by vessels they flag include adherence to international instruments and initiatives and active engagement with relevant RFMOs and flag state obligations, as specified in the conservation and management measures (CMMs) of those RFMOs.

TABLE 14
Flag state indicators

Indicator Group	Indicator Name
Flag state/ Vulnerability	• Distant-water vessels on RFMO RAVs • Distant-water vessels under several RFMOs
Flag state/ Prevalence	• Vessels on IUU lists • View of fisheries observers on flag state compliance incidents • Views of MCS practitioners on flag state compliance incidents
Flag state/ Response	• Accepted FAO Compliance Agreement • Authorized vessel data provided to FAO HSVAR • Provision of vessel data for inclusion in Global Record • Compliance with RFMO flag state obligations • Flag state is contracting party or cooperating non-contracting party to all relevant RFMOs

The distribution of individual country scores (shown in Table 15) indicates that for all flag indicators combined, 109 countries (72% of the total) have scores that fall between 1.50 and 2.49. By indicator type, vulnerability and response scores are widely distributed, with prevalence scores being highly concentrated in the lower score bands.

TABLE 15
Number of countries within score ranges for flag state IUU fishing scores

Range	IUU Score Distribution	Vulnerability Score Distribution	Prevalence Score Distribution	Response Score Distribution
4.50—5.00	0	12	1	0
4.00—4.49	2	8	1	3
3.50—3.99	2	12	1	11
3.00—3.49	4	14	1	45
2.50—2.99	9	12	1	36
2.00—2.49	41	9	9	19
1.50—1.99	68	16	19	16
1.00—1.49	26	69	119	22

5.2 Key findings

The tables below list the 10 best- and worst-performing countries in terms of flag state responsibilities, by indicator type, and flag state responsibility scores by region and ocean basin.

The average IUU fishing score for flag state responsibilities in 2021, aggregated for all types of indicators, **is 1.96, marking a small global improvement** from 2.01 in 2019.

Individual country scores, aggregated across indicator types for flag state responsibilities, **range from 4.29 for China** (the worst-performing country in 2019 also) **to 1.08 for Sweden** (now the best-performing country, replacing Argentina).

Aggregated across indicator types, **the 10 worst-performing countries in 2021 remain the same as those in 2019** (albeit with slightly different ranks).

China yields the worst scores for both vulnerability and prevalence in both 2019 and 2021.

Only **India and Belize improved their relative performance between 2019 and 2021 and moved out of the list of the 10 worst-performing countries in terms of prevalence.**

Iceland, Brazil and Sudan moved into the list of the 10 best-performing countries for the first time in 2021 when considering flag state indicators aggregated across all indicator types.

The mix of countries showing up in the table of worst performers is diverse in terms of their location, and **many developed nations such as Japan, France, Portugal and Spain show up among the bottom performers** in terms of vulnerability and prevalence, chiefly owing to the size and activities of their distant-water fleets.

For the newly introduced flag State response indicator of 'Registered vessels with foreign or unknown ownership', out **of more than 27 000 vessels, 12% have either unknown/unreported or foreign ownership**. For many individual countries the proportion of their registered vessels that have unknown or foreign ownership is very high, and **nine countries have 100% of registered vessels with unknown or foreign ownership.**

The total number of vessels (for which the flag is known) on vessel IUU lists declined slightly from 63 in 2019 to 60 in 2021.

Other positive developments in terms of response in 2021 include **four countries accepting the FAO Compliance Agreement** (Vanuatu, Philippines, Sierra Leone and Trinidad & Tobago).

In terms of regional performance, **Asia remains the worst-performing region and South America the best. Most regions improved their scores slightly in 2021** compared to 2019, with the exception of the Caribbean and Central America and the Middle East.

Considering different types of indicators, **flag state prevalence and response scores improved in 2021 compared to 2019, but vulnerability scores worsened slightly** in 2021.

The worst-performing regions by indicator type remained unchanged in 2021, with North America having the worst score for vulnerability, Asia for prevalence and the Middle East for response. **The Middle East has the best vulnerability score**, owing primarily to the fact that relatively few distant-water fishing vessels hail from this region.

The Western Pacific remains the worst-performing ocean basin in 2021, with the East Indian Ocean having improved its ranking compared to other regions and the Eastern Pacific dropping in rank.

The West Indian Ocean replaced the Western Pacific in 2021 as the ocean basin with the worst response score, with the best-performing ocean basins for vulnerability, prevalence and response indicators retaining their position in 2021.

TABLE 16

Ten worst-performing countries

for flag state responsibility IUU fishing scores, by indicator type

All Types

#1 China
4.29

#2 Taiwan
4.04

#3 Russia
3.96

#4 Korea (Rep. South)
3.67

#5 Panama
3.38

#6 Japan
3.33

#7 Spain
3.21

#8 Libya
3.00

#9 Liberia
2.92

#10 Indonesia
2.83

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	China	5.00	#1	China	5.00
#2	France	5.00	#2	France	5.00
#3	Japan	5.00	#3	Japan	5.00
#4	Korea (Rep. South)	5.00	#4	Korea (Rep. South)	5.00
#5	Panama	5.00	#5	Panama	5.00
#6	Spain	5.00	#6	Spain	5.00
#7	Taiwan	5.00	#7	Taiwan	5.00
#8	Australia	4.50	#8	Australia	4.50
#9	Portugal	4.50	#9	Canada	4.50
#10	Russia (+ 2 others)	4.50	#10	Italy	4.50

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	China	5.00	#1	China	5.00
#2	Korea (Rep. South)	4.00	#2	Taiwan	4.00
#3	Taiwan	3.67	#3	Panama	3.67
#4	Russia	3.33	#4	Spain	3.33
#5	Spain	2.67	#5	Korea (Rep. South)	3.00
#6	Panama	2.33	#6	Russia	3.00
#7	USA	2.33	#7	India	2.67
#8	Indonesia	2.00	#8	Indonesia	2.33
#9	Iran	2.00	#9	Sierra Leone	2.33
#10	Japan (+ 4 others)	2.00	#10	Belize	2.00

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Russia	4.22	#1	Singapore	4.60
#2	Guinea-Bissau	4.00	#2	China	4.13
#3	Libya	4.00	#3	Libya	4.00
#4	Ukraine	3.89	#4	Russia	4.00
#5	Grenada	3.86	#5	Liberia	3.88
#6	Dominica	3.80	#6	Dominica	3.86
#7	Comoros Isl.	3.78	#7	Albania	3.67
#8	Saint Vincent & the Grenadines	3.78	#8	Egypt	3.67
#9	Taiwan	3.78	#9	Japan	3.67
#10	Tunisia	3.78	#10	Namibia	3.67

TABLE 17

Ten best-performing countries

for flag state responsibility IUU fishing scores, by indicator type

All Types

#1 Sweden
1.08

#2 Uruguay
1.10

#3 Argentina
1.11

#4 Belgium
1.17

#5 Tonga
1.17

#6 Finland
1.22

#7 Brazil
1.29

#8 Estonia
1.29

#9 Iceland
1.29

#10 Sudan
1.32

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Angola	1.00	#1	Angola	1.00
#2	Antigua & Barbuda	1.00	#2	Antigua and Barbuda	1.00
#3	Argentina	1.00	#3	Argentina	1.00
#4	Bahrain	1.00	#4	Bahrain	1.00
#5	Bangladesh	1.00	#5	Bangladesh	1.00
#6	Barbados	1.00	#6	Barbados	1.00
#7	Belgium	1.00	#7	Belgium	1.00
#8	Benin	1.00	#8	Benin	1.00
#9	Bosnia & Herzegovina	1.00	#9	Bosnia and Herzegovina	1.00
#10	Brunei Darussalam (+ 59 others)	1.00	#10	Brunei	1.00

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Albania	1.00	#1	Albania	1.00
#2	Algeria	1.00	#2	Algeria	1.00
#3	Antigua & Barbuda	1.00	#3	Angola	1.00
#4	Argentina	1.00	#4	Antigua and Barbuda	1.00
#5	Australia	1.00	#5	Argentina	1.00
#6	Bahamas	1.00	#6	Australia	1.00
#7	Bahrain	1.00	#7	Bahamas	1.00
#8	Bangladesh	1.00	#8	Bahrain	1.00
#9	Barbados	1.00	#9	Bangladesh	1.00
#10	Belgium (+ 105 others)	1.00	#10	Barbados	1.00

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Bulgaria	1.00	#1	Belize	1.00
#2	Croatia	1.11	#2	Argentina	1.11
#3	Estonia	1.11	#3	Belgium	1.22
#4	Greece	1.11	#4	Bulgaria	1.22
#5	Peru	1.11	#5	Estonia	1.22
#6	Poland	1.11	#6	Sweden	1.22
#7	Chile	1.22	#7	Finland	1.33
#8	Cyprus	1.22	#8	Chile	1.44
#9	Ireland	1.22	#9	Guatemala	1.50
#10	Latvia (+ 3 others)	1.22	#10	Iceland	1.50

TABLE 18

Flag state scores for region

and indicator type

All Types

#1 Asia
2.32

#2 North America
2.29

#3 Africa
1.97

#4 Caribbean & Central America
1.94

#5 Oceania
1.90

#6 Europe
1.87

#7 Middle East
1.86

#8 South America
1.64

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	North America	4.25	#1	North America	4.50
#2	Europe	2.97	#2	Europe	2.78
#3	Asia	2.75	#3	Asia	2.64
#4	South America	2.25	#4	Oceania	2.15
#5	Oceania	2.00	#5	South America	2.00
#6	Caribbean & Central America	1.97	#6	Africa	1.84
#7	Africa	1.84	#7	Caribbean and Central America	1.84
#8	Middle East	1.73	#8	Middle East	1.57
World overall		**2.31**	**World overall**		**2.23**

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Asia	1.75	#1	Asia	1.85
#2	North America	1.67	#2	North America	1.50
#3	Africa	1.24	#3	Europe	1.30
#4	Caribbean & Central America	1.16	#4	Africa	1.27
#5	Oceania	1.16	#5	Caribbean and Central America	1.24
#6	Europe	1.15	#6	South America	1.13
#7	Middle East	1.09	#7	Oceania	1.11
#8	South America	1.03	#8	Middle East	1.07
World overall		**1.25**	**World overall**		**1.31**

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Middle East	2.98	#1	Middle East	3.09
#2	Caribbean & Central America	2.88	#2	Asia	3.08
#3	Africa	2.86	#3	Africa	2.95
#4	Asia	2.74	#4	Caribbean and Central America	2.75
#5	Oceania	2.60	#5	Oceania	2.72
#6	South America	1.94	#6	Europe	2.28
#7	Europe	1.91	#7	South America	2.11
#8	North America	1.61	#8	North America	1.72
World overall		**2.54**	**World overall**		**2.69**

TABLE 19

Flag state scores for ocean basin

and indicator type

All Types

#1 Western Pacific

2.29

#2 Eastern Pacific

2.10

#3 Mediterranean & Black Sea

2.09

#4 East Indian Ocean

1.97

#5 East Atlantic

1.94

#6 West Atlantic

1.87

#7 West Indian Ocean

1.78

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Eastern Pacific	3.12	#1	Eastern Pacific	3.08
#2	Mediterranean & Black Sea	3.02	#2	Mediterranean and Black Sea	2.71
#3	Western Pacific	2.60	#3	Western Pacific	2.65
#4	East Atlantic	2.42	#4	East Atlantic	2.38
#5	East Indian Ocean	2.40	#5	East Indian Ocean	2.27
#6	West Atlantic	2.07	#6	West Atlantic	1.91
#7	West Indian Ocean	1.50	#7	West Indian Ocean	1.60
World overall		**2.31**	**World overall**		**2.23**

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Western Pacific	1.68	#1	Western Pacific	1.62
#2	Eastern Pacific	1.31	#2	East Indian Ocean	1.52
#3	East Indian Ocean	1.30	#3	Eastern Pacific	1.41
#4	East Atlantic	1.27	#4	East Atlantic	1.35
#5	West Atlantic	1.16	#5	Mediterranean and Black Sea	1.24
#6	Mediterranean & Black Sea	1.15	#6	West Atlantic	1.22
#7	West Indian Ocean	1.07	#7	West Indian Ocean	1.19
World overall		**1.25**	**World overall**		**1.31**

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	West Indian Ocean	2.81	#1	Western Pacific	2.95
#2	Western Pacific	2.76	#2	East Indian Ocean	2.92
#3	West Atlantic	2.60	#3	West Indian Ocean	2.85
#4	Mediterranean & Black Sea	2.48	#4	Mediterranean and Black Sea	2.78
#5	East Indian Ocean	2.46	#5	East Atlantic	2.55
#6	East Atlantic	2.39	#6	West Atlantic	2.53
#7	Eastern Pacific	2.25	#7	Eastern Pacific	2.29
World overall		**2.54**	**World overall**		**2.69**

IUU scores
on port state
responsibilities

6
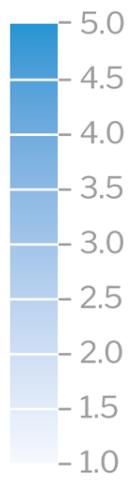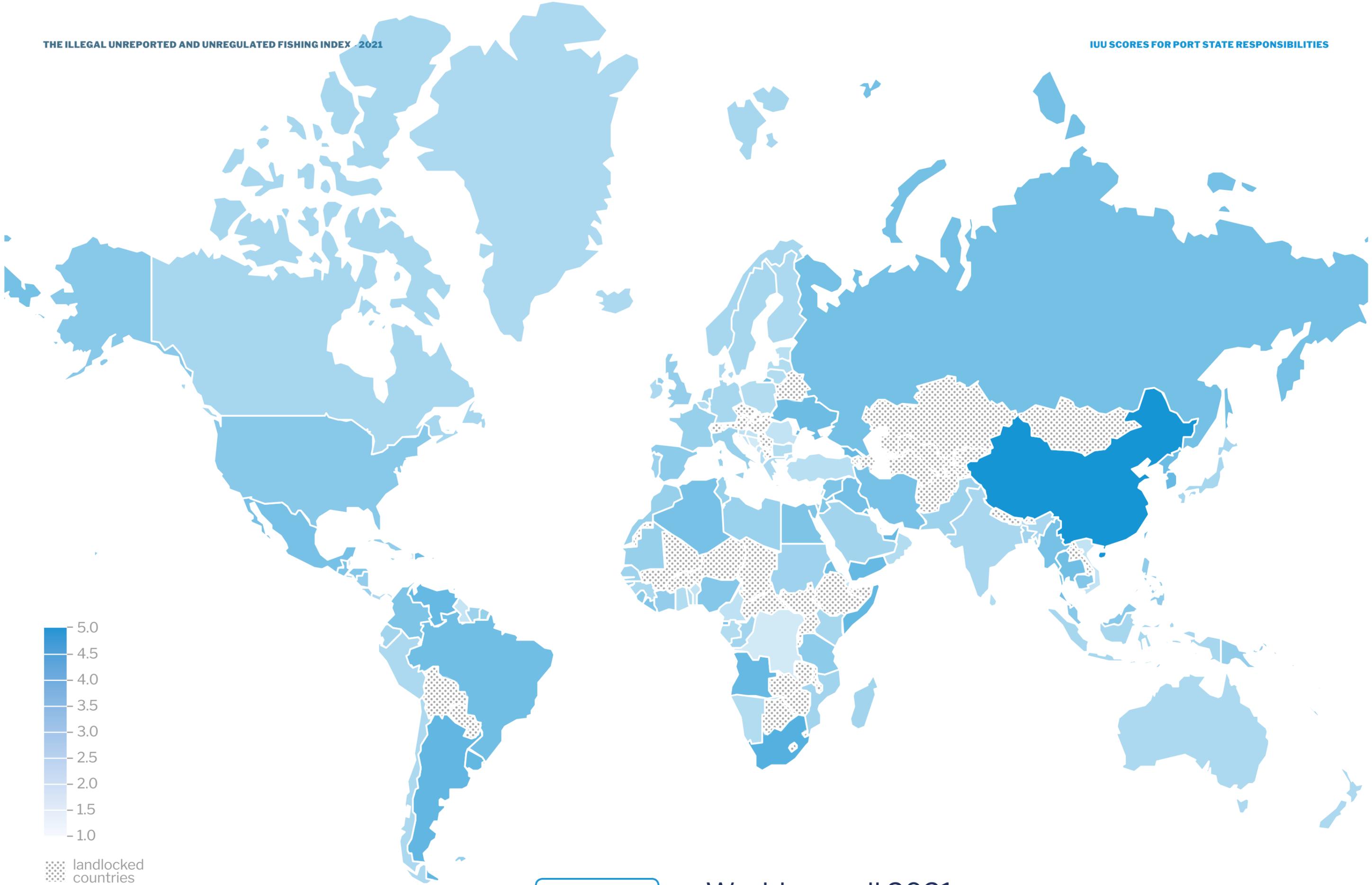
landlocked
countries

2.28

World overall 2021
Port score

6. IUU scores on port state responsibilities

6.1 Introduction and distribution of scores

Indicators constituting the port state responsibilities indicator group are shown in Table 20. Having large numbers of fishing ports and visits by foreign fishing and carrier vessels to those ports increase the risks that a state faces of illegally harvested fish passing through its ports. The views of observers and MCS practitioners provide insight into which countries are perceived as being most at risk of IUU-caught fish passing through their ports. However, port states can respond positively to both vulnerability and prevalence dimensions by becoming party to the Agreement on Port States Measures, implementing the provisions of the agreement and by complying with port state obligations as they may be provided in RFMO resolutions.

TABLE 20
Port state indicators

Indicator Group	Indicator Name
Port state/ Vulnerability	· Number of fishing ports · Port visits by foreign fishing or carrier vessels
Port state/ Prevalence	· · Views of MCS practitioners on port compliance incidents · View of fisheries observers on port compliance incidents
Port state/ Response	· Party to the Port State Measures Agreement · Designated ports specified for entry by foreign vessels · Compliance with RFMO port state obligations

The distribution of individual country scores (shown in Table 21) shows that scores for all types of indicators are widely distributed. By indicator type, response indicators are more widely distributed than scores for vulnerability and prevalence indicators. Vulnerability scores are highly distributed in upper score bands, whereas prevalence scores are highly concentrated in lower score bands (with 74% of countries in the lowest score band below 1.49).

TABLE 21
Number of countries within score ranges for port state IUU fishing scores

Range	IUU Score Distribution	Vulnerability Score Distribution	Prevalence Score Distribution	Response Score Distribution
4.50—5.00	1	39	3	15
4.00—4.49	0	54	2	2
3.50—3.99	2	20	2	19
3.00—3.49	22	2	4	2
2.50—2.99	26	7	6	12
2.00—2.49	39	14	8	20
1.50—1.99	41	8	6	11
1.00—1.49	21	8	89	64

Notes: * 32 countries have no prevalence scores because of missing data; ** 8 countries have no response scores because of missing data.

6.2 Key findings

The tables below list the 10 best- and worst-performing countries in terms of port state responsibilities, by indicator type, and port state responsibility scores by region and ocean basin.

The average IUU fishing score for port state responsibilities, aggregated for all types of indicators, **improved substantially from 2.41 in 2019 to 2.28 in 2021**. World overall scores for vulnerability, prevalence and response indicators all improved in 2021 compared with 2019.

Positive developments since 2019 include a **further 12 countries becoming a Party to the Port States Measures Agreement**, and a 50% increase in compliance with RFMO port state obligations, with 24 countries in full compliance compared to 16 in 2019.

Only China retains its 2019 place in the list of the top 10 worst-performing port states in 2021.

Of the worst-performing countries, nine have a score of 5.00 for response indicators and 12 have a score of 5.00 for vulnerability indicators. **Because of the limited number of port state indicators, many countries have the same good score for prevalence and response indicators.**

Overall, only 17.5% of all indicators in the Index score reflect port state responsibilities (see Table 2). The reason behind the limited number of port state indicators (there are fewer than for coastal, flag or general responsibility) is that **binding port state control mechanisms are the latest addition to the arsenal of international fisheries rule-making,** and there are few publicly available data sources from which to easily generate port state indicators.

Countries that are most vulnerable to IUU fishing products being landed in their ports, or IUU transactions taking place in ports, **are by and large industrial fishing nations for which fishing, processing and trading are very important sub-sectors**. Such countries include Canada, China, France, Indonesia and Japan.

Conversely, **small countries with few or no large commercial ports**, and which do not receive foreign visits, **score a lot better on the vulnerability scale.**

Fifty percent of the worst-performing countries for prevalence indicators are in Asia, with China, Thailand and Uruguay yielding the worst scores.

In terms of regional performance when considering all types of indicators aggregated, **the Middle East moved from second worst in 2019 to worst in 2021**, with **Europe replacing North America as the best-performing region**. The worst-performing regions for vulnerability (North America), prevalence (Asia) and response (the Middle East) remained unchanged in 2021.

The West Indian Ocean replaced the Western Pacific as the worst-performing ocean basin in 2021, and the East Atlantic replaced the Eastern Pacific as the best.

TABLE 22

Ten worst-performing countries

for port state responsibility IUU fishing scores, by indicator type

All Types

#1 China
5.00

#2 South Africa
3.67

#3 Singapore
3.53

#4 Argentina
3.39

#5 Somalia
3.33

#6 Uruguay
3.33

#7 Angola
3.28

#8 Georgia
3.28

#9 Korea (Rep. South)
3.28

#10 Venezuela
3.28

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Canada	5.00	#1	Canada	5.00
#2	China	5.00	#2	China	5.00
#3	France	5.00	#3	France	5.00
#4	Germany	5.00	#4	Germany	5.00
#5	Indonesia	5.00	#5	Indonesia	5.00
#6	Italy	5.00	#6	Italy	5.00
#7	Japan	5.00	#7	Japan	5.00
#8	Norway	5.00	#8	Norway	5.00
#9	Philippines	5.00	#9	Philippines	5.00
#10	Sweden (+ 2 others)	5.00	#10	Sweden	5.00

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	China	5.00	#1	China	5.00
#2	Thailand	4.50	#2	Taiwan	4.50
#3	Uruguay	4.50	#3	Vietnam	4.50
#4	Cambodia	4.00	#4	Mauritius	3.00
#5	Taiwan	4.00	#5	Russia	3.00
#6	Korea (Rep. South)	3.50	#6	Uruguay	3.00
#7	Seychelles	3.50	#7	Cambodia	2.50
#8	Cote d'Ivoire	3.00	#8	Madagascar	2.50
#9	Kiribati	3.00	#9	Micronesia	2.50
#10	South Africa (+ 1 other)	3.00	#10	Singapore	2.50

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Bahrain	5.00	#1	Bahrain	5.00
#2	Brunei Darussalam	5.00	#2	Benin	5.00
#3	China	5.00	#3	Brunei	5.00
#4	Dominican Republic	5.00	#4	Cambodia	5.00
#5	Korea (North)	5.00	#5	Cameroon	5.00
#6	Kuwait	5.00	#6	Colombia	5.00
#7	Qatar	5.00	#7	Congo (DRC)	5.00
#8	Singapore	5.00	#8	Congo, R.	5.00
#9	United Arab Emirates	5.00	#9	Dominica	5.00
#10	Angola (+ 4 others)	4.63	#10	Grenada	5.00

TABLE 23

Ten best-performing countries

for port state responsibility IUU fishing scores, by indicator type

All Types

#1 Barbados
1.00

#2 Belize
1.00

#3 Bosnia & Herzegovina
1.00

#4 Comoros Isl.
1.00

#5 Congo (DRC)
1.00

#6 Dominica
1.00

#7 Haiti
1.00

#8 Nauru
1.00

#9 Cyprus
1.22

#10 Djibouti
1.22

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Barbados	1.00	#1	Barbados	1.00
#2	Belize	1.00	#2	Dominica	1.00
#3	Bosnia &Herzegovina	1.00	#3	Eritrea	1.00
#4	Comoros Isl.	1.00	#4	Haiti	1.00
#5	Congo (DRC)	1.00	#5	Belize	3.00
#6	Dominica	1.00	#6	Bosnia & Herzegovina	3.00
#7	Haiti	1.00	#7	Comoros	3.00
#8	Nauru	1.00	#8	Congo (DRC)	3.00
#9	Benin	1.50	#9	Nauru	3.00
#10	Djibouti (+ 6 others)	1.50	#10	Vanuatu	3.00

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Albania	1.00	#1	Albania	1.00
#2	Algeria	1.00	#2	Algeria	1.00
#3	Angola	1.00	#3	Angola	1.00
#4	Australia	1.00	#4	Antigua and Barbuda	1.00
#5	Bahamas	1.00	#5	Argentina	1.00
#6	Bahrain	1.00	#6	Australia	1.00
#7	Bangladesh	1.00	#7	Bahamas	1.00
#8	Belgium	1.00	#8	Bahrain	1.00
#9	Brunei Darussalam	1.00	#9	Bangladesh	1.00
#10	Bulgaria (+ 79 others)	1.00	#10	Belgium	1.00

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Albania	1.00	#1	Albania	1.00
#2	Antiga & Barbuda	1.00	#2	Australia	1.00
#3	Australia	1.00	#3	Bahamas	1.00
#4	Barbados	1.00	#4	Barbados	1.00
#5	Belgium	1.00	#5	Belgium	1.00
#6	Belize	1.00	#6	Bulgaria	1.00
#7	Benin	1.00	#7	Cape Verde	1.00
#8	Bosnia & Herzegovina	1.00	#8	Costa Rica	1.00
#9	Bulgaria	1.00	#9	Estonia	1.00
#10	Cambodia (+ 55 others)	1.00	#10	Finland	1.00

TABLE 24

Port state scores for region

and indicator type

All Types

#1 Middle East

2.74

#2 Asia

2.63

#3 South America

2.54

#4 Africa

2.27

#5 North America

2.22

#6 Caribbean & Central America

2.21

#7 Oceania

2.17

#8 Europe

1.87

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	North America	5.00	#1	North America	5.00
#2	Asia	3.98	#2	Asia	4.38
#3	South America	3.95	#3	Europe	4.29
#4	Europe	3.75	#4	South America	4.15
#5	Oceania	3.62	#5	Middle East	4.03
#6	Africa	3.40	#6	Oceania	3.80
#7	Middle East	3.37	#7	Africa	3.74
#8	Caribbean & Central America	3.07	#8	Caribbean and Central America	3.50
World overall		**3.58**	**World overall**		**3.98**

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Asia	2.03	#1	Asia	1.98
#2	North America	2.00	#2	Oceania	1.43
#3	South America	1.72	#3	South America	1.35
#4	Oceania	1.50	#4	Africa	1.26
#5	Africa	1.45	#5	Europe	1.16
#6	Caribbean & Central America	1.11	#6	Middle East	1.07
#7	Europe	1.04	#7	Caribbean and Central America	1.06
#8	Middle East	1.00	#8	North America	1.00
World overall		**1.41**	**World overall**		**1.31**

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Middle East	3.49	#1	Middle East	3.89
#2	Caribbean & Central America	2.40	#2	Asia	2.75
#3	South America	2.38	#3	Caribbean and Central America	2.63
#4	Asia	2.25	#4	Africa	2.43
#5	Africa	2.21	#5	South America	2.13
#6	Oceania	1.89	#6	Oceania	2.12
#7	Europe	1.40	#7	Europe	2.02
#8	North America	1.00	#8	North America	1.50
World overall		**2.12**	**World overall**		**2.43**

TABLE 25

Port state scores for ocean basin
and indicator type

All Types

#1 West Indian Ocean

2.56

	5
	3
	1

#2 Western Pacific

2.51

	5
	3
	1
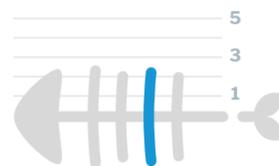
#3 West Atlantic

2.40

	5
	3
	1
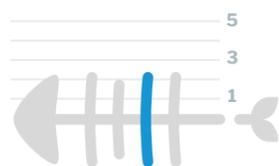
#4 Eastern Pacific

2.26

	5
	3
	1
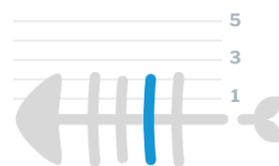
#5 East Indian Ocean

2.22

	5
	3
	1
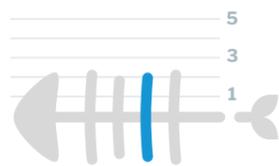
#6 Mediterranean & Black Sea

2.11

	5
	3
	1
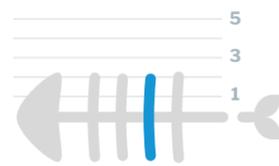
#7 East Atlantic

2.08

	5
	3
	1
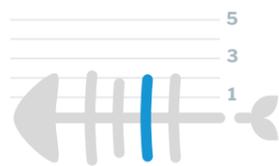
Vunerability

2021 rank	Country	2021		2019 rank	Country	2019
#1	Eastern Pacific	4.23		#1	East Indian Ocean	4.44
#2	East Indian Ocean	4.00		#2	Eastern Pacific	4.23
#3	Western Pacific	3.91		#3	Western Pacific	4.14
#4	East Atlantic	3.78		#4	Mediterranean and Black Sea	4.13
#5	Mediterranean & Black Sea	3.41		#5	East Atlantic	4.09
#6	West Indian Ocean	3.38		#6	West Indian Ocean	3.79
#7	West Atlantic	3.37		#7	West Atlantic	3.74
World overall		**3.58**		**World overall**		**3.98**

Prevalence

2021 rank	Country	2021		2019 rank	Country	2019
#1	Western Pacific	1.90		#1	Western Pacific	1.95
#2	East Indian Ocean	1.71		#2	East Indian Ocean	1.33
#3	West Indian Ocean	1.50		#3	West Indian Ocean	1.26
#4	West Atlantic	1.43		#4	East Atlantic	1.20
#5	Eastern Pacific	1.23		#5	Eastern Pacific	1.19
#6	East Atlantic	1.23		#6	Mediterranean and Black Sea	1.12
#7	Mediterranean & Black Sea	1.06		#7	West Atlantic	1.12
World overall		**1.41**		**World overall**		**1.31**

Response

2021 rank	Country	2021		2019 rank	Country	2019
#1	West Indian Ocean	2.79		#1	West Indian Ocean	2.96
#2	West Atlantic	2.47		#2	Mediterranean and Black Sea	2.60
#3	Western Pacific	2.20		#3	West Atlantic	2.47
#4	Eastern Pacific	2.05		#4	Western Pacific	2.46
#5	Mediterranean & Black Sea	2.01		#5	East Indian Ocean	2.38
#6	East Atlantic	1.76		#6	East Atlantic	2.10
#7	East Indian Ocean	1.46		#7	Eastern Pacific	1.99
World overall		**2.12**		**World overall**		**2.43**

IUU scores on general indicators not specific to other responsibilities

7

- 5.0
- 4.5
- 4.0
- 3.5
- 3.0
- 2.5
- 2.0
- 1.5
- 1.0
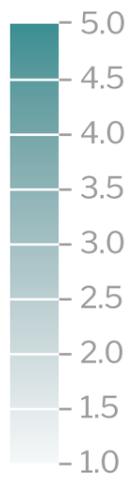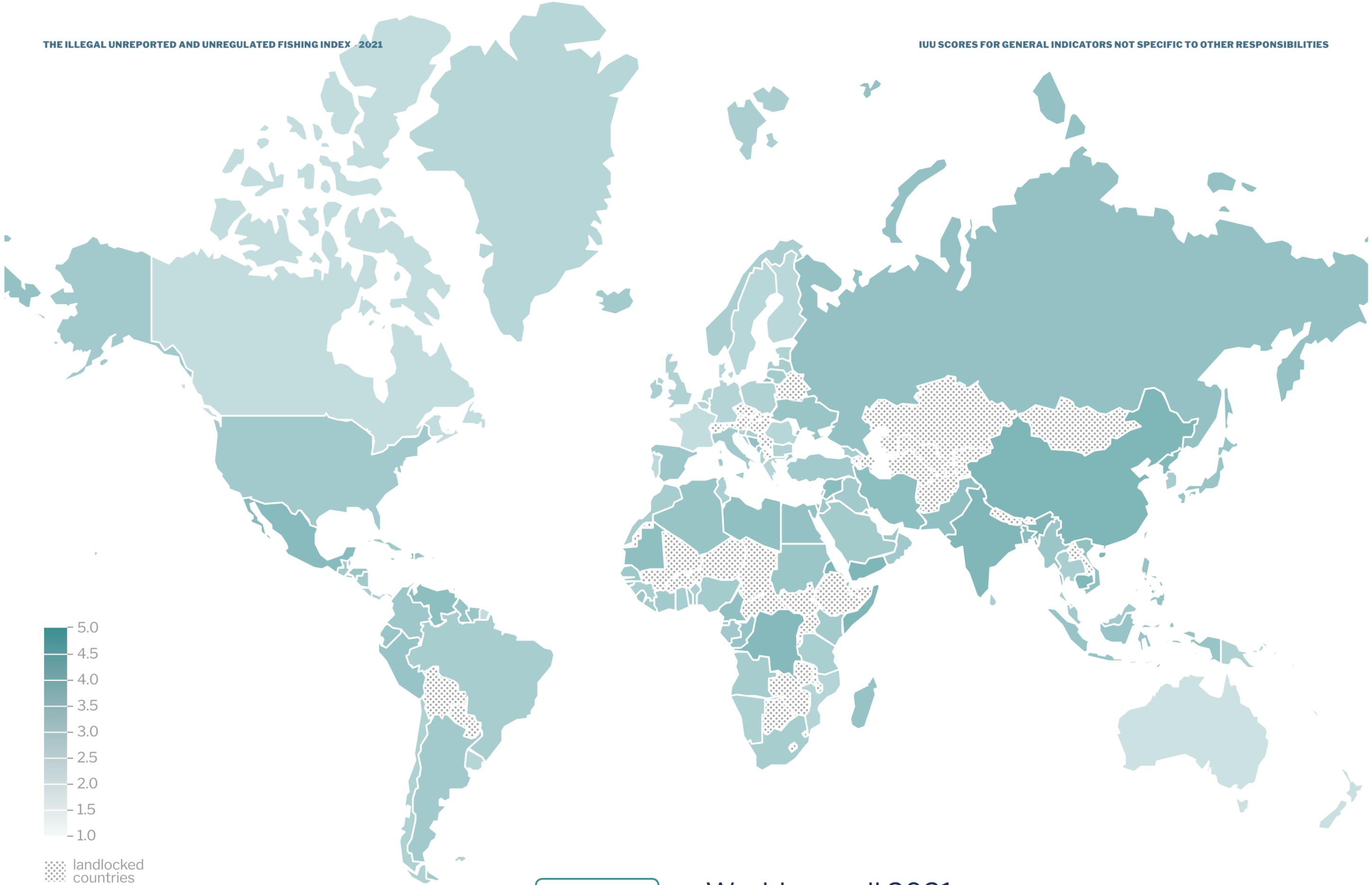
landlocked countries

2.31

World overall 2021
General score

7. IUU scores on general indicators not specific to other responsibilities

7.1 Introduction and distribution of scores

The Index includes indicators which can be considered 'general,' as they cover a range of state responsibilities, rather than relating to countries' responsibilities as coastal, flag or port states. Indicators of vulnerability relate to trade in fish products and the volume of catches made by different countries. The Index also draws on other assessments of IUU fishing and media reports for indicators of prevalence that can be considered 'general,' as they cover a range of state responsibilities. Indicators in this category also assess whether countries have acted in a number of areas to combat IUU fishing, such as having developed a NPOA-IUU, as reflected by the response indicators. This indicator group also includes indicators for levels of corruption and levels of national income, as such levels are considered as being especially likely to increase or lead to vulnerability to IUU fishing.

The category 'general' also includes indicators that relate specifically to market state responsibilities, as the Index does not include a dedicated group of indicators of market state responsibilities. This is because this specific and highly relevant category – covering fish trade – has even less publicly available data than the port state domain. It is also the only remaining domain of the four state-type responsibilities that still lacks a dedicated (i.e. fisheries-specific) international regulatory framework, making it difficult to subject it to a relevant suite of dedicated – and accessible – indictors

Indicators included within the 'general' indicator group are shown in Table 26.

TABLE 26
General indicators

Indicator Group	Indicator Name
General/ Vulnerability	• • Perception of levels of corruption • Gross national income per capita • Volume of catches • Trade balance for fisheries products • Share of global imports
General/Prevalence	• 'Carded' under the EU IUU Regulation • Identified by the National Oceanic and Atmospheric Administration for IUU fishing • Mentions of IUU fishing in media reports
General/ Response	• Mandatory vessel tracking for commercial seagoing fleet • Ratification/accession of UNCLOS • Ratification of UN Fish Stocks Agreement • Mentions in media reports of combating IUU fishing • Have a national plan of action to prevent, deter and eliminate IUU (NPOA-IUU) fishing • Demand for MSC productss • Market state is contracting party or cooperating non-contracting party to relevant RFMOs

The distribution of individual country scores (shown in Table 27) indicates that scores are most widely distributed between the different score ranges for response indicators. Prevalence indicators are more concentrated (82% of countries) in just one score band (1.00–1.49), reflecting the specific indicators included.

TABLE 27
Number of countries within score ranges for 'general' state responsibility IUU fishing scores

Range	IUU Score Distribution	Vulnerability Score Distribution	Prevalence Score Distribution	Response Score Distribution
4.50—5.00	0	0	0	1
4.00—4.49	0	3	0	10
3.50—3.99	0	7	0	22
3.00—3.49	11	45	2	23
2.50—2.99	39	31	4	20
2.00—2.49	70	35	10	52
1.50—1.99	30	25	12	20
1.00—1.49	2	6	124	4

7.2 Key findings

The tables below list the 10 best- and worst-performing countries in terms of general state responsibilities, by indicator type, and general state responsibility scores by region and ocean basin.

The average IUU fishing score for general state responsibilities, aggregated for all types of indicator, **is 2.31 and virtually unchanged from 2019** (2.32).

Aggregated across types for general state responsibilities, **individual country scores range from 3.23 for Somalia** (the worst-performing country) **to 1.30 for Australia** (the best-performing country, replacing New Zealand from the top of the 2019 list).

This category of general indicators has a large number of indicators, and therefore provides **high differentiation and resolution between countries** (as opposed to the limited port state indicators, discussed earlier), except for prevalence indicators, which are fewer in number. In this category, the mix of countries from different regions is more diverse, since a more varied mix of indicators is used to raise scores.

Some notable positive developments since 2019 associated with these indicators include: 1) a rise in the number of countries showing a demand for MSC-certified fish products; 2) ratification of the UNFSA by Cambodia and Vietnam; and 3) 74 countries now having a NPOA-IUU, an increase of 17 since 2019 (i.e. a near 30% increase since 2019).

Developing countries dominate the rankings of countries that are highly vulnerable and having a high prevalence of IUU fishing.

In terms of the best response to IUU fishing, large, developed fishing nations, such as France, Australia, Canada and New Zealand, are the top performers. This underscores the inherent weakness of developing countries when it comes to effectively combating IUU fishing, regardless of the importance fishing may play in social or economic terms. However, the list of best-performing countries in terms of response also includes many developing states, highlighting that **all states can act to reduce IUU fishing risks.**

In terms of regions, **Asia has the poorest score for aggregated indicators and in terms of vulnerability.** Africa's poor score also reflects this region's vulnerability. As they did in 2019, **Oceania and Europe both yield good scores for vulnerability and prevalence, as well as for response**, emphasizing the presence of strong action to combat IUU fishing in these regions and signalling the importance fisheries play in the public sphere, which is reflected in policy, law-making and international collaboration. Conversely, and reflecting 2019 results, the **Middle East scores the worst for response indicators** by a very wide margin, signalling insufficient policy drive and action on fisheries in the region.

The West and East Indian Ocean basins display the greatest levels of IUU risk when considering all types of indicators, with the East Indian Ocean being the most vulnerable. Prevalence scores are highest in the Eastern and Western Pacific, largely driven by the low performance of Asian countries bordering this ocean basin. But at the same time, response scores are best for the Western Pacific, reflecting the continued strength and dedication of regional institutions and fisheries policy in this part of the world.

TABLE 28

Ten worst-performing countries

for general state responsibility IUU fishing scores, by indicator type

All Types

#1 Somalia
3.23

#2 China
3.20

#3 Eritrea
3.20

#4 Yemen
3.20

#5 India
3.17

#6 Cambodia
3.13

#7 Korea (North)
3.08

#8 Mexico
3.00

#9 Trinidad & Tobago
2.97

#10 Israel
2.93

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Vietnam	4.11	#1	India	4.22
#2	India	4.00	#2	Vietnam	4.11
#3	Indonesia	4.00	#3	Indonesia	4.00
#4	Peru	3.78	#4	Myanmar	3.78
#5	Myanmar	3.78	#5	Russia	3.78
#6	Congo (DRC)	3.67	#6	Eritrea	3.67
#7	Korea (North)	3.56	#7	Peru	3.67
#8	Haiti	3.56	#8	Syria	3.67
#9	Guinea-Bissau	3.56	#9	China	3.56
#10	Mauritania	3.56	#10	Mauritania	3.56

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Mexico	3.14	#1	Thailand	3.29
#2	China	3.00	#2	Vietnam	3.29
#3	Ecuador	2.86	#3	Mexico	3.00
#4	Ghana	2.86	#4	China	2.71
#5	Korea (Rep. South)	2.71	#5	Comoros	2.57
#6	Cambodia	2.57	#6	Australia	2.29
#7	Vietnam	2.43	#7	Indonesia	2.29
#8	Sierra Leone	2.43	#8	Korea (North)	2.29
#9	Indonesia	2.29	#9	Nigeria	2.29
#10	Russia (+ 2 others)	2.29	#10	Russia	2.29

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Singapore	4.57	#1	Singapore	4.25
#2	Eritrea	4.43	#2	Grenada	4.14
#3	Israel	4.43	#3	Yemen	4.14
#4	Yemen	4.14	#4	Eritrea	4.00
#5	Grenada	4.14	#5	Israel	4.00
#6	United Arab Emirates	4.09	#6	Korea (North)	4.00
#7	Korea (North)	4.00	#7	Libya	4.00
#8	Venezuela	4.00	#8	Sudan	4.00
#9	Syria	4.00	#9	Syria	4.00
#10	Brunei Darussalam (+ 1 other)	4.00	#10	Venezuela	4.00

TABLE 29

Ten best-performing countries

for general state responsibility IUU fishing scores, by indicator type

All Types

#1 Australia
1.30

#2 New Zealand
1.37

#3 Canada
1.50

#4 France
1.50

#5 Cook Islands
1.56

#6 Nauru
1.56

#7 Seychelles
1.63

#8 Portugal
1.67

#9 Monaco
1.73

#10 Finland
1.73

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Monaco	1.00	#1	Cook Islands	1.00
#2	Finland	1.22	#2	Monaco	1.00
#3	Netherlands	1.22	#3	Netherlands	1.22
#4	Singapore	1.33	#4	Singapore	1.33
#5	Sweden	1.33	#5	Sweden	1.33
#6	Denmark	1.44	#6	Denmark	1.44
#7	Cook Islands	1.50	#7	Finland	1.44
#8	Nauru	1.50	#8	Germany	1.44
#9	Palau	1.50	#9	Ireland	1.44
#10	Australia (+ 4 others)	1.56	#10	Nauru	1.50

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Albania	1.00	#1	Albania	1.00
#2	Algeria	1.00	#2	Algeria	1.00
#3	Angola	1.00	#3	Antigua and Barbuda	1.00
#4	Antigua & Barbuda	1.00	#4	Argentina	1.00
#5	Australia	1.00	#5	Bahamas	1.00
#6	Bahamas	1.00	#6	Bahrain	1.00
#7	Bahrain	1.00	#7	Bangladesh	1.00
#8	Bangladesh	1.00	#8	Barbados	1.00
#9	Barbados	1.00	#9	Belgium	1.00
#10	Belgium (+ 94 others)	1.00	#10	Benin	1.00

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	France	1.14	#1	Australia	1.14
#2	Australia	1.29	#2	UK	1.55
#3	Canada	1.29	#3	Belgium	1.57
#4	New Zealand	1.43	#4	Canada	1.57
#5	Chile	1.57	#5	France	1.57
#6	Benin	1.64	#6	Japan	1.57
#7	Ghana	1.71	#7	New Zealand	1.57
#8	Korea (Rep. South)	1.71	#8	Spain	1.57
#9	Mozambique	1.71	#9	Ghana	1.71
#10	Cook Islands (+ 15 others)	1.86	#10	Korea (Rep. South)	1.71

TABLE 30

General state scores for region
and indicator type

All Types

#1 Asia

2.59

#2 Middle East

2.52

#3 Caribbean & Central America

2.43

#4 Africa

2.43

#5 South America

2.40

#6 Europe

2.08

#7 North America

1.92

#8 Oceania

1.79

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	Asia	3.06	#1	Asia	3.14
#2	Africa	3.03	#2	Africa	3.13
#3	South America	2.84	#3	South America	2.81
#4	Middle East	2.53	#4	Middle East	2.52
#5	Caribbean & Central America	2.52	#5	Caribbean and Central America	2.49
#6	North America	2.50	#6	North America	2.33
#7	Oceania	2.17	#7	Oceania	2.27
#8	Europe	2.07	#8	Europe	2.05
World overall		**2.63**	**World overall**		**2.66**

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	North America	1.86	#1	Asia	1.70
#2	Asia	1.55	#2	North America	1.43
#3	South America	1.40	#3	Africa	1.31
#4	Africa	1.29	#4	Caribbean and Central America	1.31
#5	Caribbean & Central America	1.25	#5	Europe	1.19
#6	Europe	1.22	#6	Oceania	1.18
#7	Oceania	1.14	#7	South America	1.13
#8	Middle East	1.00	#8	Middle East	1.00
World overall		**1.28**	**World overall**		**1.28**

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	Middle East	3.48	#1	Middle East	3.55
#2	Caribbean & Central America	3.07	#2	South America	2.90
#3	Asia	2.81	#3	Africa	2.82
#4	South America	2.66	#4	Caribbean and Central America	2.82
#5	Africa	2.62	#5	Asia	2.81
#6	Europe	2.52	#6	Europe	2.37
#7	Oceania	1.93	#7	Oceania	2.08
#8	North America	1.57	#8	North America	1.79
World overall		**2.67**	**World overall**		**2.68**

TABLE 31

General state scores for ocean basin
and indicator type

All Types

#1 West Indian Ocean

2.46

#2 East Indian Ocean

2.37

#3 West Atlantic

2.37

#4 Eastern Pacific

2.35

#5 Mediterranean & Black Sea

2.31

#6 East Atlantic

2.22

#7 Western Pacific

2.20

Vunerability

2021 rank	Country	2021	2019 rank	Country	2019
#1	East Indian Ocean	3.14	#1	East Indian Ocean	3.26
#2	Eastern Pacific	2.83	#2	West Indian Ocean	2.84
#3	West Indian Ocean	2.76	#3	Eastern Pacific	2.75
#4	Western Pacific	2.60	#4	Western Pacific	2.70
#5	East Atlantic	2.60	#5	East Atlantic	2.63
#6	West Atlantic	2.54	#6	Mediterranean and Black Sea	2.53
#7	Mediterranean & Black Sea	2.48	#7	West Atlantic	2.52
World overall		**2.63**	**World overall**		**2.66**

Prevalence

2021 rank	Country	2021	2019 rank	Country	2019
#1	Eastern Pacific	1.57	#1	East Indian Ocean	1.78
#2	Western Pacific	1.50	#2	Western Pacific	1.55
#3	East Atlantic	1.34	#3	Eastern Pacific	1.43
#4	West Atlantic	1.27	#4	East Atlantic	1.28
#5	East Indian Ocean	1.19	#5	West Atlantic	1.26
#6	West Indian Ocean	1.12	#6	West Indian Ocean	1.23
#7	Mediterranean & Black Sea	1.12	#7	Mediterranean and Black Sea	1.14
World overall		**1.28**	**World overall**		**1.28**

Response

2021 rank	Country	2021	2019 rank	Country	2019
#1	West Indian Ocean	3.00	#1	West Indian Ocean	3.06
#2	West Atlantic	2.91	#2	West Atlantic	2.85
#3	Mediterranean & Black Sea	2.87	#3	Mediterranean and Black Sea	2.71
#4	East Indian Ocean	2.48	#4	East Atlantic	2.53
#5	Eastern Pacific	2.45	#5	East Indian Ocean	2.40
#6	East Atlantic	2.43	#6	Western Pacific	2.35
#7	Western Pacific	2.32	#7	Eastern Pacific	2.30
World overall		**2.67**	**World overall**		**2.68**

Key conclusions and implications from the 2021 update

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8. Key conclusions and implications from the 2021 update

The second edition of the Index has made it possible to conduct longitudinal analysis of the risks of IUU fishing, tracking changes in the listings of best- and worst-performing countries, regions and ocean basins at the global scale and highlighting that the risk of **IUU fishing is a dynamic issue.**

The global score across all state responsibilities and types of indicators in 2021 is 2.24, down from 2.29 in 2019, **representing an improvement.**

Table 32 draws on the contents of the results presented in earlier sections to highlight the worst-performing regions and ocean basins for different combinations of indicators related to state responsibilities and indicator types. **It serves as a call to action in specific regions and ocean basins.**

TABLE 32
Worst-performing regions and ocean basins by indicator group in 2021

		Type			
		Vulnerability	**Prevalence**	**Response**	**Overall**
Responsibility	**Coastal**	North America / Western Pacific	Africa / West Indian Ocean	Caribbean and Central America / West Atlantic	Africa / West Indian Ocean
	Flag	North America / Eastern Pacific	Asia / Western Pacific	Middle East / West Indian Ocean	Asia / Western Pacific
	Port	North America / Eastern Pacific	Asia / Western Pacific	Middle East / West Indian Ocean	Middle East / West Indian Ocean
	General	Asia / East Indian Ocean	North America / Eastern Pacific	Middle East / West Indian Ocean	Asia / West Indian Ocean
	Overall	North America / Eastern Pacific	Asia / Western Pacific	Middle East / West Indian Ocean	Asia / Western Pacific

Note: Regions and oceans entering this table in 2021 that were not the worst performing in 2019 are shown in italic.

It is noted that the aggregated scores for all countries in a region or ocean basin do not reveal the need for action in or by specific countries. Table 33 draws from earlier tables to highlight the countries that have the worst score for different indicator groups, the implication being that **specific action may be most required by and in these countries**, all the while not being limited to these countries.

TABLE 33
Worst-performing countries by indicator group in 2021

		Type			
		Vulnerability	**Prevalence**	**Response**	**Overall**
Responsibility	**Coastal**	Japan · China · France	Seychelles · Ecuador · Guinea Bissau (+ 4 others)	Argentina · Congo, R. · Benin (+ 2 others)	Congo, R. · Seychelles · Equatorial Guinea (+ 2 others)
	Flag	China · France · Japan (+ 4 others)	China · South Korea · Taiwan	Russia · Guinea-Bissau · Libya	China · Taiwan · Russia
	Port	Canada · China · France (+ 9 others)	China · Thailand · Uruguay	Bahrain · Brunei Darussalam · China (+ 7 others)	China · South Africa · Singapore
	General	Vietnam · India · Indonesia	Mexico · China · Ecuador (+ 1 other)	Singapore · Eritrea · Israel	Somalia · China · Eritrea (+ 1 other)
	Overall	China · Japan · USA	China · South Korea · Taiwan	Eritrea · Singapore · Yemen	China · Russia · Korea (Rep. South)

Note: Countries with the same scores in rankings are listed alphabetically. Where more countries than shown in the table have the same score, the number of additional countries is provided in brackets

The fact that 93 countries improved their scores in 2021 suggests that **steps to reduce the risks of IUU fishing are possible and that many countries are indeed taking such steps**, although 57 countries saw their scores worsen, highlighting the continued need for action.

Given that improvements can be made to reduce IUU fishing risk, **the failure to reduce Index scores in many countries** thus remains a cause of great concern.

Also **of special concern is the continuing high score for China**. While China improved its score marginally in 2021, it remains very high compared to other countries and the gap between China's score and those of the next worst-performing countries has actually grown.

Examining the full ranking tables (see Annex) suggests that **developing countries remain the most vulnerable to IUU fishing** and lack the resources to fully respond to the challenges of combating IUU fishing. This means that meaningful mechanisms need to be developed that support developing countries in their efforts to combat IUU fishing at all levels.

Nations operating distant-water fishing fleets that yield poor scores for both flag/prevalence and flag/response indicators may be considered as particularly problematic. Solving their poor performance would go a long way to eliminate major portions of IUU fishing globally, and there is a pressing need to hold these countries accountable for their actions (or lack thereof), to monitor progress and to take remedial action where and as appropriate. Such countries include China, Taiwan, Panama and Russia.

The IUU Fishing Index website

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9. The IUU Fishing Index website

A dedicated website – **www.iuufishingindex.net** – presents the results of the IUU Fishing Index for both 2019 and 2021.

The website has a home page, which introduces the Index and explains the content of the different webpages.

The 'Maps' webpage allows users to visualize IUU fishing scores at the global level, either aggregated or filtered for indicators related to state 'responsibilities' (flag, coastal, port and general) or indicator 'types' (vulnerability, prevalence and response). The maps can also be filtered to show countries in specific regions or ocean basins. Dark colours indicate poor performance, and hovering over an individual country brings up summary country data. Indicator scores are provided for both 2019 and 2021.

The website uses 'fish bones' graphics to present the IUU fishing scores. Individual 'bones' represent the coastal, flag, port and general state responsibilities, with larger fish bones showing poorer scores.

The 'Country profiles' webpage provides complete data for individual coastal states, showing the scores for each indicator for the country concerned, and how the country's scores compare to the average scores for the region and the ocean basin(s) in which the country is located. Individual country profiles can be downloaded from this webpage. Indicator scores are provided for both 2019 and 2021, with an indication of whether a country's score and rank have improved.

The 'Ranking' webpage shows scores ranked by country and allows users to view these rankings filtered by the type of indicator. Rankings are also provided for regional scores and ocean basin scores. Again, this webpage allows for a comparison between 2019 and 2021.

The database webpage provides all individual country indicator scores for both 2019 and 2021 and allows users to analyze data for and between countries, region and ocean basins, and between 2019 and 2021. This functionality is new to the 2021 update of the Index.

Annex: Country scores, 2021 and 2019

The tables below provide a full list of the country scores for 2021 and 2019 across all state responsibilities, with countries ranked by their overall IUU score.

2021

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)	Change in country rank compared to 2019
China	4.32	4.19	3.31	**3.86**	1	—
Russia	4.09	2.11	3.06	**3.04**	2	▲ 2
South Korea	4.00	3.15	1.97	**2.91**	3	▲ 33
Somalia	3.32	2.19	3.21	**2.90**	4	▲ 7
Yemen	3.36	1.30	3.83	**2.89**	5	▲ 2
Taiwan	3.20	3.11	2.47	**2.88**	6	▼ 4
Ukraine	2.84	1.67	3.42	**2.75**	7	▲ 26
Eritrea	2.64	1.30	3.94	**2.75**	8	▲ 61
Egypt	3.48	1.52	3.22	**2.70**	9	▲ 15
Libya	3.43	1.52	3.22	**2.69**	10	▲ 7
Iran	2.91	1.63	3.43	**2.68**	11	▲ 26
Japan	4.28	1.59	2.36	**2.67**	12	▲ 8
South Africa	3.28	1.89	2.75	**2.64**	13	▲ 32

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)	Change in country rank compared to 2019
Venezuela	3.13	1.41	3.33	**2.63**	14	▲ 32
Mexico	3.52	1.74	2.70	**2.61**	15	▼ 7
Liberia	3.56	1.78	2.53	**2.59**	16	▼ 6
North Korea	2.91	1.41	3.80	**2.58**	17	▲ 13
Congo, R. of	2.68	1.38	3.50	**2.56**	18	▲ 26
Equatorial Guinea	3.27	1.52	2.91	**2.56**	19	▲ 56
Indonesia	4.08	2.11	1.81	**2.55**	20	▼ 6
Philippines	3.56	1.96	2.28	**2.55**	21	▼ 7
Vanuatu	3.52	1.96	2.31	**2.55**	22	▲ 8
Cambodia	2.68	2.17	2.76	**2.54**	23	▼ 20
Spain	3.40	2.07	2.28	**2.53**	24	▲ 3
Sierra Leone	3.18	2.11	2.44	**2.53**	25	▼ 19
Singapore	2.00	1.52	3.87	**2.52**	26	▲ 14
USA	4.12	2.33	1.53	**2.51**	27	▲ 38
Dominican Republic	2.85	1.30	3.80	**2.51**	28	▲ 36
Syria	2.91	1.30	3.37	**2.51**	29	▼ 4
Algeria	3.35	1.30	2.85	**2.45**	30	▲ 26
Guyana	2.68	1.29	3.06	**2.45**	31	▲ 35
Guinea-Bissau	3.14	1.85	2.49	**2.45**	32	▲ 25

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)	Change in country rank compared to 2019
Comoros Isl.	2.52	1.76	2.89	**2.45**	33	▼ 4
Myanmar	3.59	1.41	2.53	**2.44**	34	▼ 22
Nigeria	3.09	1.63	2.66	**2.44**	35	▲ 15
Honduras	2.85	1.52	3.04	**2.42**	36	▲ 50
Angola	2.92	1.52	2.75	**2.42**	37	▲ 16
Israel	2.08	1.38	3.29	**2.41**	38	▲ 36
United Arab Emirates	2.35	1.30	3.82	**2.41**	39	▲ 71
Jamaica	2.27	1.38	3.42	**2.40**	40	▼ 21
São Tomé & Príncipe	2.73	1.38	2.90	**2.40**	41	▼ 10
Grenada	2.45	1.30	3.24	**2.40**	42	▼ 10
Mauritania	3.23	1.52	2.56	**2.40**	43	▲ 71
Georgia	2.26	1.30	3.59	**2.39**	44	▲ 26
Brunei Darussalam	2.45	1.30	3.80	**2.39**	45	▲ 49
Congo (DRC)	2.30	1.38	3.48	**2.39**	46	—
Malaysia	2.60	2.07	2.47	**2.39**	47	▼ 13
Ecuador	3.40	2.44	1.61	**2.38**	48	▲ 1
Thailand	3.00	2.74	1.67	**2.38**	49	▲ 7
Argentina	2.85	1.52	2.92	**2.37**	50	▲ 67
Trinidad & Tobago	2.45	1.89	2.67	**2.36**	51	▲ 39

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)	Change in country rank compared to 2019
India	2.64	1.38	2.81	**2.36**	52	▼ 36
Iraq	2.55	1.38	3.00	**2.36**	53	▼ 10
Seychelles	2.84	2.52	1.86	**2.34**	54	▲ 57
Guatemala	2.96	1.30	2.80	**2.34**	55	▲ 62
Vietnam	3.14	2.48	1.69	**2.33**	56	▼ 51
Côte d'Ivoire	3.00	2.07	2.06	**2.33**	57	▲ 19
Madagascar	3.12	1.30	2.56	**2.33**	58	▲ 11
Italy	3.64	1.44	2.06	**2.32**	59	▼ 36
Panama	3.20	1.85	2.03	**2.31**	60	▼ 34
Senegal	2.84	2.30	1.94	**2.31**	61	▲ 17
Mauritius	2.84	1.63	2.42	**2.30**	62	▲ 39
Cuba	2.75	1.30	2.96	**2.29**	63	▲ 9
Lebanon	2.56	1.38	2.74	**2.29**	64	▼ 11
Costa Rica	2.92	1.30	2.58	**2.28**	65	▲ 69
Morocco	3.72	1.30	2.03	**2.28**	66	▼ 6
Kuwait	2.50	1.30	3.40	**2.28**	67	▲ 35
Marshall Isl.	2.73	1.70	2.42	**2.27**	68	▲ 40
Sudan	2.77	1.38	2.52	**2.27**	69	▼ 60
Haiti	2.32	1.38	3.10	**2.27**	70	▼ 32

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)	Change in country rank compared to 2019
Nicaragua	3.16	1.30	2.36	**2.26**	71	▲ 29
Tunisia	3.00	1.30	2.47	**2.26**	72	▲ 34
Colombia	2.74	1.30	2.73	**2.25**	73	▼ 13
Kiribati	3.05	1.67	2.19	**2.25**	74	▼ 33
Bahamas	2.65	1.30	2.85	**2.25**	75	▲ 46
El Salvador	2.56	1.30	2.72	**2.24**	76	▲ 40
Samoa	2.89	1.30	2.62	**2.24**	77	▼ 6
Saint Vincent & the Grenadines	1.76	2.19	2.61	**2.23**	78	▲ 21
Timor-Leste	2.68	1.38	2.57	**2.23**	79	▼ 58
Pakistan	2.86	1.30	2.54	**2.23**	80	▼ 8
Jordan	2.50	1.30	3.09	**2.22**	81	▲ 22
Tanzania	2.76	1.85	2.11	**2.22**	82	▼ 64
Micronesia (FS of)	3.05	1.67	2.11	**2.21**	83	▼ 1
Cameroon	2.18	1.52	3.00	**2.21**	84	▼ 69
Bangladesh	2.68	1.30	2.60	**2.20**	85	▼ 37
Peru	3.68	1.63	1.58	**2.19**	86	▼ 1
Gambia	2.86	1.74	2.11	**2.19**	87	▼ 9
Bahrain	2.05	1.30	3.50	**2.18**	88	▲ 32
Gabon	3.18	1.30	2.22	**2.17**	89	▼ 28

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)	Change in country rank compared to 2019
Palau	2.63	1.78	2.23	**2.17**	90	▲ 24
Montenegro	2.60	1.38	2.33	**2.17**	91	▲ 4
France	3.92	1.22	1.67	**2.17**	92	▼ 25
Maldives	3.16	1.44	2.03	**2.17**	93	▼ 12
Oman	2.64	1.30	2.50	**2.17**	94	▲ 40
United Kingdom	3.20	1.22	2.17	**2.17**	95	—
Suriname	2.68	1.22	2.59	**2.16**	96	▲ 11
Bosnia & Herzegovina	2.00	1.38	3.00	**2.16**	97	▼ 9
Qatar	2.05	1.30	3.40	**2.15**	98	▲ 24
Papua New Guinea	3.00	1.26	2.19	**2.14**	99	▼ 1
Saint Lucia	2.32	1.30	2.85	**2.13**	100	▼ 65
Guinea	3.14	1.74	1.80	**2.13**	101	▼ 79
Brazil	2.91	1.41	2.13	**2.11**	102	▲ 10
Turkey	2.80	1.52	1.97	**2.11**	103	▼ 49
Dominica	1.80	1.30	3.50	**2.10**	104	▼ 25
Norway	3.56	1.22	1.75	**2.10**	105	▼ 14
Saint Kitts & Nevis	1.89	1.57	2.63	**2.09**	106	▼ 13
Fiji	2.95	1.67	1.86	**2.08**	107	▼ 18
Togo	2.59	1.52	2.23	**2.08**	108	▼ 69

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)	Change in country rank compared to 2019
Benin	2.32	1.38	2.44	**2.07**	109	▼ 58
Saudi Arabia	2.00	1.38	2.71	**2.06**	110	▼ 23
Tuvalu	2.64	1.44	2.11	**2.04**	111	▼ 5
Monaco	1.67	1.41	2.92	**2.03**	112	▲ 23
Kenya	2.72	1.63	1.83	**2.02**	113	▼ 17
Portugal	3.20	1.30	1.75	**2.02**	114	▼ 71
Solomon Isl.	2.84	1.07	2.17	**2.02**	115	▼ 4
Greece	2.96	1.41	1.75	**1.99**	116	▼ 12
Cape Verde	2.60	1.30	2.06	**1.98**	117	▲ 2
Mozambique	2.88	1.63	1.61	**1.98**	118	▼ 34
Lithuania	2.28	1.38	2.11	**1.98**	119	▲ 5
Namibia	2.96	1.22	1.83	**1.97**	120	▼ 23
Ghana	2.64	2.11	1.36	**1.95**	121	▼ 6
Iceland	3.08	1.44	1.56	**1.95**	122	▲ 21
Netherlands	2.76	1.11	2.03	**1.95**	123	▲ 3
Antigua & Barbuda	2.05	1.38	2.39	**1.95**	124	▼ 61
Barbados	1.95	1.38	2.42	**1.94**	125	▲ 16
Uruguay	2.05	2.07	1.75	**1.93**	126	▲ 13
Albania	2.64	1.30	1.89	**1.92**	127	▼ 43

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)	Change in country rank compared to 2019
Chile	3.32	1.30	1.39	**1.91**	128	▼1
Nauru	2.39	1.29	2.03	**1.90**	129	—
Cook Islands	2.64	1.38	1.74	**1.90**	130	▼69
Malta	2.44	1.41	1.83	**1.88**	131	▼5
Sri Lanka	3.00	1.30	1.53	**1.88**	132	▼73
Cyprus	2.52	1.30	1.83	**1.86**	133	▼5
Ireland	2.76	1.37	1.61	**1.86**	134	▲10
Djibouti	1.91	1.38	2.27	**1.86**	135	▼54
Canada	3.56	1.11	1.22	**1.85**	136	▼3
Slovenia	2.00	1.38	1.94	**1.81**	137	—
Australia	3.00	1.22	1.39	**1.80**	138	▼1
Germany	2.84	1.00	1.67	**1.80**	139	▲2
Bulgaria	2.74	1.30	1.48	**1.77**	140	▲4
Croatia	2.20	1.30	1.75	**1.74**	141	▼18
Latvia	2.24	1.15	1.83	**1.74**	142	▲10
Tonga	2.36	1.30	1.67	**1.73**	143	▲3
Poland	2.40	1.30	1.58	**1.73**	144	▲5
Belgium	2.27	1.30	1.70	**1.72**	145	▲7
Romania	2.24	1.38	1.56	**1.72**	146	▼16

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)	Change in country rank compared to 2019
Denmark	2.48	1.00	1.72	**1.72**	147	▼11
Belize	2.05	1.38	1.65	**1.69**	148	▼3
New Zealand	2.76	1.07	1.39	**1.68**	149	▼18
Sweden	2.36	1.07	1.61	**1.66**	150	▼2
Estonia	1.80	1.29	1.69	**1.62**	151	▼1
Finland	1.95	1.22	1.73	**1.62**	152	▼4

2019

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)
China	4.44	4.19	3.37	**3.93**	1
Taiwan	3.56	3.56	3.03	**3.34**	2
Cambodia	3.32	2.37	4.00	**3.23**	3
Russia	4.22	2.44	3.00	**3.16**	4
Vietnam	3.75	3.11	2.68	**3.16**	5
Sierra Leone	3.14	2.33	3.46	**3.01**	6
Yemen	3.41	1.30	4.00	**2.96**	7
Sudan	3.14	1.30	3.71	**2.77**	8
Liberia	3.72	1.89	2.74	**2.76**	9

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)
Somalia	3.36	2.19	2.82	**2.75**	10
Myanmar	3.59	1.30	3.40	**2.73**	11
Libya	3.43	1.52	3.43	**2.73**	12
Philippines	3.92	2.19	2.26	**2.71**	13
Mexico	3.48	1.93	2.83	**2.71**	14
Indonesia	3.92	2.30	2.14	**2.70**	15
Cameroon	3.09	1.30	3.71	**2.69**	16
India	3.39	2.07	2.70	**2.68**	17
Tanzania	3.00	1.74	3.11	**2.65**	18
Japan	4.28	1.63	2.22	**2.63**	19
Comoros	3.09	1.81	2.97	**2.61**	20
Timor-Leste	3.14	1.41	3.36	**2.61**	21
Syria	3.00	1.30	3.71	**2.61**	22
Guinea	3.09	1.74	3.00	**2.60**	23
North Korea	2.77	1.74	3.75	**2.58**	24
Egypt	3.22	1.52	3.17	**2.58**	25
Jamaica	2.68	1.30	3.71	**2.57**	26
Panama	3.24	2.48	2.14	**2.56**	27
Spain	3.91	2.22	1.94	**2.56**	28
Vanuatu	3.64	1.96	2.23	**2.55**	29

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)
Grenada	2.37	1.30	3.71	**2.53**	30
Ukraine	3.13	1.74	2.79	**2.53**	31
Malaysia	3.09	1.52	3.13	**2.52**	32
São Tomé & Príncipe	2.95	1.30	3.26	**2.51**	33
Congo, R. of	3.05	1.52	3.50	**2.51**	34
Italy	3.76	1.70	2.17	**2.50**	35
Saint Lucia	2.36	1.30	3.81	**2.50**	36
South Korea	3.91	2.30	1.67	**2.49**	37
Iran	3.22	1.41	3.04	**2.49**	38
Haiti	2.30	1.38	3.80	**2.48**	39
Togo	2.64	1.63	3.24	**2.47**	40
Singapore	2.09	1.63	4.29	**2.46**	41
Kiribati	3.50	1.81	2.29	**2.45**	42
Portugal	3.36	1.74	2.33	**2.45**	43
Iraq	2.55	1.30	3.73	**2.44**	44
South Africa	3.52	1.78	2.17	**2.43**	45
Congo (DRC)	2.50	1.30	3.56	**2.42**	46
Bangladesh	2.73	1.30	3.09	**2.41**	47
Ecuador	2.96	2.30	2.06	**2.39**	48
Nigeria	3.05	2.19	2.12	**2.39**	49

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)
Benin	3.00	1.30	3.22	**2.37**	50
Lebanon	2.44	1.30	3.31	**2.37**	51
Angola	3.12	1.41	2.63	**2.37**	52
Venezuela	2.83	1.41	2.92	**2.36**	53
Turkey	3.13	1.74	2.28	**2.34**	54
Thailand	2.92	2.67	1.66	**2.33**	55
Algeria	3.35	1.30	2.52	**2.33**	56
Guinea-Bissau	2.91	1.52	2.61	**2.33**	57
Sri Lanka	3.00	1.96	2.11	**2.32**	58
Morocco	3.84	1.30	2.03	**2.32**	59
Colombia	2.74	1.52	2.90	**2.31**	60
Eritrea	2.50	1.38	3.24	**2.31**	61
Cook Islands	3.15	1.30	2.58	**2.30**	62
Gabon	3.00	1.74	2.29	**2.30**	63
Antigua and Barbuda	2.89	1.30	2.86	**2.30**	64
Dominican Republic	2.85	1.30	3.24	**2.30**	65
USA	3.96	1.85	1.56	**2.29**	66
Guyana	3.14	1.30	2.53	**2.29**	67
France	3.92	1.22	1.94	**2.28**	68
Madagascar	3.08	1.63	2.19	**2.27**	69

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)
Honduras	2.85	1.52	2.65	**2.27**	70
Georgia	2.35	1.30	3.29	**2.27**	71
Samoa	2.89	1.30	2.68	**2.26**	72
Cuba	2.43	1.30	3.22	**2.26**	73
Pakistan	2.78	1.30	2.87	**2.26**	74
Israel	2.05	1.30	3.57	**2.25**	75
Equatorial Guinea	3.10	1.30	2.64	**2.25**	76
Cote d'Ivoire	2.92	1.52	2.31	**2.24**	77
Senegal	3.04	1.74	2.06	**2.24**	78
Gambia	2.82	1.41	2.57	**2.23**	79
Dominica	2.00	1.38	3.42	**2.23**	80
Maldives	3.16	1.22	2.34	**2.23**	81
Papua New Guinea	3.00	1.67	2.11	**2.23**	82
Djibouti	2.41	1.30	3.08	**2.23**	83
Micronesia (FS of)	3.05	1.56	2.23	**2.23**	84
Brunei Darussalam	2.35	1.30	3.63	**2.22**	85
Mozambique	3.04	1.52	2.17	**2.22**	86
Albania	2.72	1.30	2.56	**2.22**	87
Peru	3.52	1.52	1.83	**2.21**	88
Saudi Arabia	2.60	1.30	3.25	**2.21**	89

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)
Bosnia and Herzegovina	2.32	1.30	3.08	**2.20**	90
Fiji	3.09	1.56	2.14	**2.20**	91
Trinidad & Tobago	2.28	1.44	3.00	**2.20**	92
Norway	3.68	1.00	2.06	**2.19**	93
United Kingdom	3.13	1.44	2.15	**2.19**	94
Montenegro	2.48	1.30	2.85	**2.18**	95
Kenya	2.72	1.41	2.40	**2.18**	96
Namibia	3.04	1.30	2.25	**2.18**	97
Saint Vincent & the Grenadines	2.36	1.81	2.35	**2.18**	98
Jordan	2.50	1.30	3.25	**2.17**	99
United Arab Emirates	2.35	1.30	3.38	**2.16**	100
Mauritius	2.84	1.74	1.97	**2.15**	101
Kuwait	2.50	1.30	3.13	**2.14**	102
Greece	2.92	1.41	2.13	**2.13**	103
Brazil	2.91	1.41	2.19	**2.13**	104
Argentina	3.05	1.30	2.29	**2.13**	105
Tunisia	2.96	1.30	2.17	**2.13**	106
Seychelles	3.12	1.85	1.64	**2.13**	107
Tuvalu	2.64	1.56	2.23	**2.12**	108
Suriname	2.65	1.30	2.64	**2.12**	109

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)
Marshall Islands	2.91	1.44	2.11	**2.11**	110
Solomon Islands	3.08	1.26	2.06	**2.10**	111
Bahamas	2.52	1.30	2.58	**2.09**	112
Nicaragua	2.96	1.30	2.09	**2.09**	113
Bahrain	2.20	1.30	3.25	**2.08**	114
Palau	2.95	1.33	2.18	**2.08**	115
Mauritania	3.23	1.41	1.85	**2.07**	116
El Salvador	2.68	1.30	2.23	**2.07**	117
Guatemala	2.83	1.30	2.22	**2.07**	118
Cape Verde	2.64	1.52	2.06	**2.06**	119
Nauru	2.76	1.22	2.35	**2.05**	120
Saint Kitts and Nevis	2.09	1.56	2.47	**2.05**	121
Qatar	2.05	1.30	3.25	**2.03**	122
Croatia	2.91	1.30	2.00	**2.03**	123
Lithuania	2.44	1.41	2.19	**2.02**	124
Netherlands	2.64	1.22	2.19	**2.02**	125
Malta	2.83	1.30	2.03	**2.01**	126
Chile	3.35	1.30	1.69	**2.01**	127
Cyprus	2.52	1.30	2.19	**2.01**	128
Romania	2.43	1.74	1.90	**2.00**	129

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)
New Zealand	3.36	1.00	1.78	**1.99**	130
Oman	2.48	1.30	2.26	**1.99**	131
Monaco	1.56	1.30	3.04	**1.99**	132
Ghana	2.96	1.63	1.56	**1.98**	133
Canada	3.48	1.00	1.64	**1.97**	134
Costa Rica	2.80	1.48	1.74	**1.97**	135
Denmark	2.84	1.00	2.03	**1.94**	136
Barbados	1.95	1.38	2.48	**1.94**	137
Australia	3.00	1.33	1.58	**1.91**	138
Slovenia	1.80	1.30	2.44	**1.91**	139
Uruguay	1.87	1.74	2.08	**1.89**	140
Germany	2.40	1.22	2.03	**1.89**	141
Iceland	3.08	1.00	1.62	**1.86**	142
Ireland	2.65	1.07	1.93	**1.85**	143
Tonga	2.68	1.30	1.69	**1.82**	144
Belize	2.09	1.74	1.61	**1.78**	145
Bulgaria	2.52	1.30	1.53	**1.74**	146
Sweden	2.55	1.00	1.78	**1.73**	147
Poland	2.32	1.30	1.50	**1.68**	148
Finland	2.05	1.22	1.80	**1.67**	149

Country	Vulnerability	Prevalence	Response	Overall IUU Score (worst to best)	Overall rank (worst to best)
Estonia	2.00	1.15	1.83	**1.67**	150
Latvia	2.00	1.22	1.53	**1.57**	151
Belgium	1.80	1.30	1.28	**1.43**	152