# THE GLOBAL FISHING INDEX 2021





#### **About**

This document outlines the Conceptual Framework used by the Minderoo Foundation to inform the 2021 Global Fishing Index governance assessments. It should be read in conjunction with the Global Fishing Index Key Insights report, Technical methods and Governance Indicator Codebook.

#### Data statement

Visit www.globalfishingindex.org to explore the data behind the Global Fishing Index and download country-level results.

#### Correspondence

Additional detail is available by contacting globalfishingindex@minderoo.org

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#### Dimension 1: Policy and objectives

*Policy and objectives* assess a country's fisheries policy foundation and governance and management objectives.

This includes the presence of a national legislative framework for governing fisheries and stated environmental, economic and social sustainability objectives; a country's commitment to regional and international standards for fisheries sustainability and worker rights; and the use of harmful subsidies, which have been linked to overcapacity and overexploitation of fish stocks.

Attribute	Attribute Description	Indicator	Indicator Description
1.1 National fisheries policy	Country's underlying policy framework used to govern fisheries, including stated fishery objectives and goals	1.1.1 Presence of a legal and/ or customary framework for governing fisheries	There is evidence of a legal and/or customary framework used to govern fisheries. Framework must be currently enacted (not repealed).  Legal framework refers to the use of relevant fisheries laws, regulations and/or policy instruments.  Customary framework refers to governance arrangements founded upon traditional, long-continued practices and usage.
		<b>1.1.2</b> Stated environmental sustainability goal(s) for fisheries	Environmental sustainability goal(s), target(s) or policy exist and are explicitly stated.  This includes achieving maximum sustainable yield, as well as other biological, ecological or environmental goals related to resource or ecosystem conservation or sustainable use.  Explicitly stated refers to goals outlined in fisheries policy, fisheries agency websites or other relevant legislation.
		1.1.3 Stated economic goal(s) for fisheries	Economic goal(s), target(s) or policy exist and are explicitly stated.  This includes achieving maximum economic yield, other goals related to industry development or economic benefits and interests.  Explicitly stated refers to goals outlined in fisheries policy, fisheries agency websites or other relevant legislation.
		<b>1.1.4</b> Stated livelihood goal(s) for fisheries	Livelihood goal(s), target(s) or policy exist and are explicitly stated.  This includes goals related to supporting fishing and coastal communities, improving fishers' access to financial support or other goals related to improving livelihoods for individuals employed in the fisheries sector.  Explicitly stated refers to goals outlined in fisheries policy, fisheries agency websites or other relevant legislation.
1.2 Alignment with regional and international standards for fisheries management	Country has committed to regional and international policy agreements related to sustainable governance and management of fisheries resources	1.2.1 Membership to all relevant regional fisheries management organisations	Country is a contracting party or cooperating non-contracting party to all relevant high seas regional fisheries management organisations (RFMOs).  RFMOs are defined as intergovernmental organisations that have competence, under international law, to adopt legally binding conservation and management measures regarding living marine resources placed under its responsibility, as defined by the convention or agreement by which it was established.¹  An RFMO is considered relevant for a coastal country where its area of legal competence touches or overlaps with the country's exclusive economic zone (EEZ) or equivalent waters.  Does not include RFMOs for non-highly migratory species, bilateral or multilateral agreements or general RFMOs that do not include a high seas component.
		<b>1.2.2</b> Adoption of 1982 United Nations Convention for the Law of the Sea	Country is party to the 1982 United Nations Convention for the Law of the Sea, as of 1 March 2020. Countries may become a party through the ratification, accession or succession of the convention.
		1.2.3 Adoption of 1995 United Nations Fish Stocks Agreement	Country is party to the 1995 United Nations Fish Stocks Agreement, as of 1 March 2020.  Countries may become a party through the ratification or acceptance of the convention.

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Attribute	Attribute Description	Indicator	Indicator Description
		1.2.4 Adoption of 2009 FAO Agreement on Port States Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing	Country is party to the 2009 Food and Agriculture Organization's Agreement on Port States Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, as of 1 March 2020.  Countries may become a party through the ratification, acceptance, approval or accession of the convention.
		<b>1.2.5</b> Adoption of 1993 Convention on Biological Diversity	Country is party to the 1993 Convention on Biological Diversity, as of 1 March 2020.  Countries may become a party through the ratification, acceptance, approval, accession or succession of the convention.
		1.2.6 Adoption of 1975 Convention on International Trade in Endangered Species of Wild Fauna and Flora	Country is party to the 1975 Convention on International Trade in Endangered Species of Wild Fauna and Flora, as of 1 March 2020.  Countries may become a party through the ratification, acceptance, approval or accession of the convention.  Does not include countries that have signed but not ratified the agreement.
		1.2.7 Adoption of 1983 Convention on the Conservation of Migratory Species	Country is party to the 1983 Convention on the Conservation of Migratory Species, as of 1 March 2020.  Countries may become a party through the ratification, acceptance, approval or accession of the convention.  Does not include countries that have signed but not ratified the agreement.
1.3 Alignment with international standards for	Country has committed to international policy agreements for the protection of worker rights, working conditions and safety onboard fishing vessels	1.3.1 Adoption of the 2012 International Maritime Organization Cape Town Agreement	Country is party to the 2012 International Maritime Organization Cape Town Agreement, as of 1 March 2020.  Countries may become a party through the ratification, acceptance, approval or accession of the convention.  Does not include countries that have signed but not ratified the agreement.
protecting worker rights and safety in fisheries		1.3.2 Adoption of 2007 International Labour Organization Work in Fishing Convention (No. 188)	Country's status must be In Force for the 2007 International Labour Organization Work in Fishing Convention (No. 188), as of 1 March 2020. Does not include countries that have signed but not ratified the agreement.
		1.3.3 Adoption of 2006 International Labour Organization Maritime Labour Convention	Country's status must be In Force for the 2006 International Labour Organization Maritime Labour Convention, as of 1 March 2020.  Does not include countries that have signed but not ratified the agreement.
		1.3.4 Adoption of 1930 International Labour Organization Forced Labour Convention (No. 29)	Country's status must be In Force for the 1930 International Labour Organization Forced Labour Convention (No. 29), as of 1 March 2020.  Does not include countries that have signed but not ratified the agreement.
		1.3.5 Adoption of 1957 International Labour Organization Abolition of Forced Labour Convention (No. 105)	Country's status must be In Force for the 1957 International Labour Organization Abolition of Forced Labour Convention (No. 105), as of 1 March 2020.  Does not include countries that have signed but not ratified the agreement.
		1.3.6 Adoption of Protocol of 2014 to the 1930 Forced Labour Convention (P029)	Country's status must be In Force for the <i>Protocol of 2014 to the 1930 Forced Labour Convention (P029)</i> , as of 1 March 2020. Does not include countries that have signed but not ratified the agreement.

Attribute	Attribute Description	Indicator	Indicator Description
1.4 Fisheries subsidy programs	Provision of harmful and beneficial fisheries subsidies	<b>1.4.1</b> Diversity of harmful subsidy programs (NEGATIVE)	Diversity of harmful subsidies provided by public entities to the fisheries sector.  Harmful subsidies include programs that currently (or have the potential to) lead to the overexploitation of fishery resources, either through enhancing fishing capacity beyond sustainable limits or reducing the costs associated with fishing.  This includes the following 'capacity-enhancing' subsidies:  • fuel subsidies  • tax exemptions  • boat/vessel construction, renewal and modernisation subsidies  • fisheries development projects and services  • port construction and renovation subsidies  • marketing, processing and storage, infrastructure and support subsidies <sup>2</sup>
		1.4.2 Prevalence of harmful subsidies (NEGATIVE)	Proportion of unambiguous subsidies provided in a country (based on value in USD) that are recognised as harmful.  Unambiguous subsidies include subsidies that are recognised as 'beneficial' or 'capacity-enhancing' (i.e. Excluding ambiguous subsidies such as fisher assistance programs, vessel buyback programs and rural fisher community development programs). <sup>3</sup> Harmful subsidies include programs that currently (or have the potential to) lead to the overexploitation of fishery resources, either through enhancing fishing capacity beyond sustainable limits or reducing the costs associated with fishing.  This includes the following 'capacity-enhancing' subsidies:  • fuel subsidies;  • tax exemptions;  • boat/vessel construction, renewal and modernisation subsidies;  • fisheries development projects and services;  • port construction and renovation subsidies; and marketing, processing and storage, infrastructure and support subsidies. <sup>4</sup> Beneficial subsidies include programs that promote the conservation and management of fisheries resources, including fishery management programs and services, fisheries research and development and investment in marine protected areas. <sup>5</sup>

#### Dimension 2: Management capacity

Management capacity assesses the resources, tools and expertise available to effectively implement governance and management strategies and achieve fisheries objectives.

This includes evidence of financial, technical and professional capacity to ensure the sustainable management of fisheries resources and the use of various measures to manage fisheries, in particular science-based tools such as harvest control rules.

Attribute	Attribute Description	Indicator	Indicator Description
2.1 Resources provided for managing fisheries	Financial, technical and professional capacity to ensure the sustainable management of fisheries resources	<b>2.1.1</b> Evidence of an annual budget for fisheries management	There is evidence of an annual budget allocated for fisheries management by the national fisheries authority.  Fisheries management includes activities related to administration, licencing, research, monitoring, surveillance and enforcement.  Does not include funds allocated for fisheries development or subsidies.  This budget may or may not be publicly available.
		<b>2.1.2</b> Presence of a strategic plan for achieving fisheries objectives	The national authority has a strategic plan that outlines fisheries strategy, goals or direction.  The plan must be current or expired within the last five (5) years.  The plan may or may not be publicly available.
		2.1.3 Presence of an annual report	The national authority publishes an annual report that provides information about agency objectives, aims and/or outcomes, fisheries financial statements, fleet structure and/or fish stock status.  Does not refer to fisheries statistics reports or other reports that do not discuss a combination of these components.  Report may or may not be publicly available.
		2.1.4 Presence of an organisational chart	The national fisheries authority has an organisational chart, which identifies the line of authority and responsibility of each individual or position within the fisheries agency.  The chart may or may not be publicly available.
		<b>2.1.5</b> Employment of fisheries observers	Fisheries observers are employed.  A fisheries observer is a certified person on board fishing vessels that collects scientific and technical information on the fishing operations and catch.  Observers may or may not have legal coercion powers and their data may or may not be used for non-scientific purposes (such as enforcement).  Observers can be employed by the national management agency, relevant regional fisheries management organisations (RFMOs) or through external contractors.
2.2 Management measures	The type and diversity of tools and controls used to achieve fisheries objectives	<b>2.2.1</b> Use of harvest rules in the most valuable fishery	Use of harvest rules to regulate or control fishing effort in the most valuable fishery.  Harvest rules, also known as harvest control rules, are a set of pre-defined management actions used to outline how harvest is to be managed, based on the state of specified indicators of stock status. <sup>6</sup> Harvest rules may or may not be implemented and/or enforced.  The most valuable fishery refers to a species or stock that makes the most significant contribution to a country economically or socially. This is used as a proxy for the best managed fishery, as management intensity is expected to be higher compared with other fisheries.  The most valuable fishing was self-identified by informants for each country.

Attribute	Attribute Description	Indicator	Indicator Description
		2.2.2 Use of catch and/or effort limits in the most valuable fishery	Use of catch or effort limits to regulate or control harvesting in the most valuable fishery.  Catch limits are controls that restrict the amount (weight or number of individuals) of fish that can be caught or retained, such as through use of a total allowable catch or bag limits.  Effort limits are controls that restrict fishing capacity, including fleet size or amount of time fishers/fleets can spend fishing, such as limited entry/licence limits, vessel day schemes, net/trap soaking times.  Catch and effort limits may or may not be enforced.  The most valuable fishery refers to a species or stock that makes the most significant contribution to a country economically or socially. This is used as a proxy for the best managed fishery, as management intensity expected to be higher compared with other fisheries.  The most valuable fishery was self-identified by informants for each country.
		2.2.3 Use of other management measures in the most valuable fishery	Use of other management measures or controls to regulate or control fishing effort in the most valuable fishery.  Other management measures or controls refers to measures other than harvest rules or catch/effort limits. These include spatial and temporal, closures, species restrictions, gear restrictions, etc.  Other management measures may or may not be enforced.  The most valuable fishery refers to a species or stock that makes the most significant contribution to a country economically or socially. This is used as a proxy for the best managed fishery, as management intensity expected to be higher compared with other fisheries.  The most valuable fishery was self-identified by informants for each country.
		2.2.4 Prevalence of science- based catch and/or effort limits	Proportion of a country's fisheries that are actively managed using catch- or effort-based limits, which have been determined based on scientific information.  Actively managed means that these limits are regularly reviewed and updated (i.e. at uniform intervals of time).  Catch limits are controls that restrict the amount (weight or number of individuals) of fish that can be caught or retained, such as through use of a total allowable catch or bag limits.  Effort limits are controls that restrict fishing capacity, including fleet size or amount of time fishers/fleets can spend fishing, such as limited entry/licence limits, vessel day schemes, net/trap soaking times.  Limits may or may not be enforced.
		<b>2.2.5</b> Prevalence of rights-based tools	Proportion of a country's fisheries that use rights-based approaches.  Rights-based approaches refer to measures that allocate a secure right to a certain volume of catch, to use a certain amount of fishing effort and/or to access certain fishing areas, such as individual transferrable quotas, fishing cooperatives, territorial user rights and customary marine tenure systems.

# Dimension 3: Information availability and monitoring

Information availability and monitoring assesses the range, quality and resolution of the fisheries information available to inform management decisions.

This includes the regular collection of catch and effort data; the use of stock assessments to evaluate stock status; and the availability of information regarding the size and structure of fishing fleets operating inside a country's national waters.

Attribute	Attribute Description	Indicator	Indicator Description
3.1 The scope resolution and monitoring information	The scope, quality and resolution of fisheries information collected on a regular basis	<b>3.1.1</b> Collection and verification of catch data in the most valuable fishery	Self-reported catch data is collected and verified in the most valuable fishery.  Self-reported catch data refers to fisher-provided information about the landed catch (including weight, species composition etc.).  Verification is the independent confirmation of reported data by another party (such as a buyer or processor) or through another process (catch certificate, blockchain, logbooks etc.).  Information collection and verification must be implemented and enforced.  Most valuable fishery refers to a species or stock that makes the most significant contribution to a country economically or socially. This is used as a proxy for the best managed fishery, as management intensity expected to be higher compared with other fisheries.  The most valuable fishery was self-identified by informants for each country.
		3.1.2 Collection and verification of effort data in the most valuable fishery	Self-reported effort data is collected and verified in the most valuable fishery.  Self-reported effort data refers to fishery-provided information on the effort spent conducting fishing activities (such as time spent fishing, size of gear, number of gear units used etc.).  Verification is the independent confirmation of reported data by another party (for example, buyer or processor) or through another process (catch certificate, blockchain, logbooks, etc).  Information collection and verification must be implemented and enforced.  Most valuable fishery refers to a species or stock that makes the most significant contribution to a country economically or socially. This is used as a proxy for the best managed fishery, as management intensity expected to be higher compared with other fisheries.  The most valuable fishery was self-identified by informants for each country.
		<b>3.1.3</b> Availability of biological information for the most valuable fishery	Biological information is available for the most valuable fishery.  Biological information includes species or stock life history characteristics, ecological role, population age and/or size structure, reproduction rates, recruitment etc.  This information may be held by government agencies, industry, academics, non-governmental organisations or other parties but should be available for use in fisheries management.  Most valuable fishery refers to a species or stock that makes the most significant contribution to a country economically or socially. This is used as a proxy for the best managed fishery, as management intensity expected to be higher compared with other fisheries.  The most valuable fishery was self-identified by informants in each country.

Attribute	Attribute Description	Indicator	Indicator Description
		3.1.4 Data collection in-port	Proportion of landing sites where information about landed catch is collected.  Landing sites includes any location (such as ports or beaches) where fishers offload catch for sale, transportation and/or processing. This may include official and unofficial locations.  Landed catch is the proportion of the total catch that is retained and brought to the landing site, excluding any catch that is discarded or used at sea.  Information may not be collected at the species level (i.e. it can be collected at the species group level or total catch level).
3.2 Knowledge of stock health	Knowledge of of biological and statistical	<b>3.2.1</b> Proportion of stocks that are formally assessed	Proportion of fisheries for which a formal stock assessment is conducted as part of fishery management processes.  A formal stock assessment is defined as the process of collecting and analysing biological and statistical information to determine the changes in the abundance of fishery stocks in response to fishing and, to the extent possible, to predict future trends of stock abundance. Includes quantitative and qualitative (such as risk-based approaches) assessments completed by a recognised fisheries authority or research institute.  Formal stock assessments may or may not be publicly available.  Assessment may not have undergone external review.
		3.2.2 Presence of stock assessment model for the most valuable fishery	There is a stock assessment model for the most valuable fishery.  A stock assessment model refers to a quantitative model used to determine the status and/or trend of a fish stock.  This model may use various data inputs/indicators, including biological data (such as age structure of the stock, fecundity) and information about fishing activities (such as catch and effort).  The model may or may not be published.  Does not include risk-based or qualitative approaches.  Most valuable fishery refers to a species or stock that makes the most significant contribution to a country economically or socially. This is used as a proxy for the best managed fishery, as management intensity expected to be higher compared with other fisheries.  The most valuable fishery was self-identified by informants in each country.
3.3 Information on fishing fleets	The availability of information regarding the size, composition and nationality of the fishing fleet operating in a country's national waters	3.3.1 Availability of national vessel registry	There is a register of all vessels operating in the country's national waters, including fishing and non-fishing (passenger, carrier, recreational etc.).  This registry is made available to interested parties, via open-access publication, a fee or information request or sharing arrangements with regional organisations.  A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>8</sup>
		<b>3.3.2</b> Availability of national fishing licence registry	There is a register of all individuals, companies and vessels licenced to fish in national waters.  This registry is made available to interested parties, via open-access publication, a fee or information request or sharing arrangements with regional organisations.

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Attribute	Attribute Description	Indicator	Indicator Description
		<b>3.3.3</b> Registration of foreign fishing vessels	All foreign fishing vessels are registered on an official list or registry.  Foreign refers to any vessel flying a flag other than that of the country in whose exclusive economic zone (EEZ) it is operating.  A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>10</sup> Registration of foreign fishing vessels must be implemented/enforced.
		3.3.4 Registration of domestic large-scale commercial fishing vessels	Domestic large-scale commercial fishing vessels are registered on an official list or registry.  Domestic refers to any vessel flying the flag of the country in whose exclusive economic zone (EEZ) it is operating (i.e. not foreign).  A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities.\(^{11}\)  Large-scale refers to vessels considered under national policy or by the national fisheries authority as 'large-scale' or 'industrial'. The definition of 'large scale' varies across countries.  Commercial fishing refers to the harvesting of resources, either in whole or in part, with the intention of marking a profit,\(^{12}\) excluding charter or recreational fishing operations.  Registration must be implemented/enforced.
		3.3.5 Registration of domestic small-scale commercial fishing vessels	Domestic small-scale commercial fishing vessels are registered on an official list or registry.  Domestic refers to any vessel flying the flag of the country in whose exclusive economic zone (EEZ) it is operating (i.e. not foreign).  A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>13</sup> Small-scale refers to vessels considered under national policy or by the national fisheries authority as 'small-scale' or 'artisanal'. This definition varies among countries.  Commercial fishing refers to the harvesting of resources, either in whole or in part, with the intention of making a profit, <sup>14</sup> excluding charter or recreational fishing operations.  Registration must be implemented/enforced.
		<b>3.3.6</b> Registration of domestic non-commercial fishing vessels	Domestic non-commercial fishing vessels are registered on an official list or registry.  Domestic refers to any vessel flying the flag of the country in whose exclusive economic zone (EEZ) it is operating (i.e. not foreign).  A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>15</sup> Non-commercial fishing refers to harvesting of resources, either in whole or in part, without the intention of making a profit (i.e. for personal consumption). This includes subsistence, recreational, leisure, sport and/or charter fishing.  Registration must be implemented/enforced.
		<b>3.3.7</b> Use of public vessel tracking technology	Coverage of public tracking technology on vessels greater than 12 metres in length, including the use of automatic identification systems (AIS) or public vessel monitoring systems.  AIS is a satellite system that transmits a ship's location, along with other identifying information such as name, flag, course and speed, allowing for vessel identification and tracking.  A vessel monitoring system operates in a similar manner to AIS, transmitting vessel location and identity; however, this data has historically been restricted for private use.

#### Dimension 4: Level and control of access to fisheries resources

Level and control of access to fisheries resources assesses the extent of fishing access granted to various fleets and the tools used to regulate access across these fleets.

This includes access by foreign fishing fleets; use of spatial zoning to restrict access; and licencing requirements across large-scale, small-scale and non-commercial fishing fleets.

Attribute	Attribute Description	Indicator	Indicator Description
4.1 Foreign	Level and type of access provided to foreign fishing fleets	<b>4.1.1</b> Observed foreign fishing in national waters (NEGATIVE)	Observed fishing activity by vessels that are operating under a foreign flag, as measured through automatic identification system (AIS) technology.
fishing access			Foreign refers to any vessel flying a flag other than that of the country in whose exclusive economic zone (EEZ) it is operating. <sup>16</sup>
			A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>17</sup>
			Vessels may be operating in a country's national waters legally or illegally but does not include vessels fishing in the EEZs of their immediate neighbours.
			AIS is a satellite system that transmits a ship's location, along with other identifying information such as name, flag, course and speed, allowing for vessel identification and tracking.
		<b>4.1.2</b> Foreign fishing access via joint venture or business agreements (NEGATIVE)	Foreign fishing vessels are currently permitted to fish in a country's national waters via joint venture or business agreements.
			Foreign refers to any vessel flying a flag other than that of the country in whose exclusive economic zone (EEZ) it is operating. <sup>18</sup>
			A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>19</sup>
			Joint venture or business agreements refers to agreements between two or more parties, including foreign and domestic partners from the public and/or private sector. <sup>20</sup>
		<b>4.1.3</b> Foreign fishing access via bi- or multilateral agreements (NEGATIVE)	Foreign fishing vessels are currently permitted to fish in a country's national waters via bi- or multi-lateral agreements.
			Foreign refers to any vessel flying a flag other than that of the country in whose exclusive economic zone (EEZ) it is operating. <sup>21</sup>
			A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>22</sup>
			Bi- or multi-lateral agreements refers to agreements between two or more countries/governments. <sup>23</sup>

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Attribute	Attribute Description	Indicator	Indicator Description
4.2 Use and extent	Use and extent of spatial restrictions to manage or	<b>4.2.1</b> Presence of a coastal fisheries management area	There is an explicitly mandated coastal fisheries management zone or area that excludes all large-scale commercial fishing activities (i.e. reserves fishing rights for small-scale fishers).
of spatial access restrictions	control fishing access		This zone must be documented in fisheries legislation or policy.
			Does not include areas closed to all fishing activities (such as no-take marine protected areas or equivalent).
			Large-scale refers to vessels considered under national policy or by the national fisheries management agency as 'large-scale' or 'industrial'. This definition varies among countries.
			Commercial fishing refers to the harvesting of resources, either in whole or in part, with the intention of marking a profit, <sup>24</sup> excluding charter or recreational fishing operations.
		4.2.2 Proportion of	Proportion of national waters designated as a marine protected area (MPA).
		national waters designated as marine protected areas	MPAs are a clearly defined geographical space, recognised, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. <sup>25</sup>
			Excludes areas designated for fisheries management or sustainable extraction purposes (such as spatial closures).
			Areas must be implemented (does not include proposed areas).
4.3	Use of fishing licences or	4.3.1 Proportion of fishing	Proportion of fishing vessels that must hold a valid fishing licence or permit to operate.
Licencing requirements	permits to monitor, restrict or limit access to national waters	vessels required to hold valid fishing licences or permits	A licence or permit is a document giving the holder the right to operate in a fishery according to the terms established by the regulating authority.
			A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources,
			including mother ships and vessels directly engaged in fishing activities. <sup>26</sup>
			Includes both foreign and domestic vessels and commercial and non-commercial fishing activities.
		4.3.2 Licencing requirements	Foreign fishing vessels are required to hold a valid fishing licence or permit to fish in national waters.
		for foreign fishing vessels	A licence or permit is a document giving the holder the right to operate in a fishery according to the terms established by the regulating authority.
			Foreign refers to any vessel flying a flag other than that of the country in whose exclusive economic zone (EEZ) it is operating. <sup>27</sup>
			A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources,
			including mother ships and vessels directly engaged in fishing activities. <sup>28</sup>
			Licencing requirements must be implemented/enforced.

Attribute	Attribute Description	Indicator	Indicator Description
		<b>4.3.3</b> Licencing requirements for domestic, large-scale commercial fishing vessels	Domestic large-scale commercial fishing vessels are required to hold a valid licence or permit to fish in national waters.  A licence or permit is a document giving the holder the right to operate in a fishery according to the terms established by the regulating authority.
			Domestic refers to any vessel flying the flag of the country in whose exclusive economic zone (EEZ) it is operating (i.e. not foreign).
			A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>29</sup>
			Large scale refers to vessels considered under national policy or by the national fisheries management agency as 'large-scale' or 'industrial'. This definition varies among countries.
			Commercial fishing refers to the harvesting of resources, either in whole or in part, with the intention of marking a profit, <sup>30</sup> excluding charter or recreational fishing operations.
			Licencing requirements must be implemented/enforced.
		4.3.4 Licencing requirements	Domestic small-scale commercial fishing vessels are required to hold a valid licence or permit to fish in national waters.
		for domestic, small-scale commercial fishing vessels	A licence or permit is a document giving the holder the right to operate in a fishery according to the terms established by the regulating authority.
			Domestic refers to any vessel flying the flag of the country in whose exclusive economic zone (EEZ) it is operating (i.e. not foreign).
			A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>31</sup>
			Small scale refers to vessels considered under national policy or by the national fisheries management agency as 'small-scale' or 'artisanal'. This definition varies among countries.
			Commercial fishing refers to the harvesting of resources, either in whole or in part, with the intention of making a profit, $^{32}$ excluding charter or recreational fishing operations.
			Licencing requirements must be implemented/enforced.
		4.3.5 Licencing requirements	Domestic non-commercial fishing vessels are required to hold a valid licence or permit to fish in national waters.
		for domestic non-commercial fishing vessels	A licence or permit is a document giving the holder the right to operate in a fishery according to the terms established by the regulating authority.
			Domestic refers to any vessel flying the flag of the country in whose exclusive economic zone (EEZ) it is operating (i.e. not foreign).
			A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities. <sup>33</sup>
			Non-commercial fishing refers to harvesting of resources, either in whole or in part, without the intention
			of making a profit (i.e. for personal consumption). This includes subsistence, recreational, leisure, sport or charter fishing.
			Licencing requirements must be implemented/enforced.

#### Dimension 5: Compliance management system

Compliance management system assesses the strength of a country's fisheries compliance and enforcement program.

This includes the use of formal monitoring and surveillance programs to prevent, detect and deter illegal fishing activities, including worker exploitation; the severity of fishery sanctions; perceived integrity of the relevant fisheries authority and judicial system; and an estimate of the prevalence of high-risk activities for illegal fishing, including the use of flags of convenience.

Attribute	Attribute Description	Indicator	Indicator Description
5.1 Compliance monitoring and surveillance	Monitoring and surveillance systems used to prevent, detect and deter illegal fishing activities	<b>5.1.1</b> Adoption of a <i>National</i> or <i>Regional Plan of Action</i> for <i>Illegal, Unreported,</i> and <i>Unregulated Fishing</i>	Country has adopted a National or Regional Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing.  This plan is consistent with the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU).34
		<b>5.1.2</b> Use of targeted on-land or in-port inspections	Fishery inspections are completed on land or while a fishing vessel is in port, and there are specified targets for the number of inspections that occur.  Fishery inspections are official checks and, where necessary, investigations of fishing vessels, gear, catch, licenses and permits to ensure compliance with fishery regulations.  This includes planned or spontaneous inspections.  On land or in-port includes inspections of fish processing plants, storage facilities, transport vessels, etc.  Targets may be indicated as a frequency or total number of inspections, or any other metrics, and may or may not be publicly available.  Inspections must be implemented/enforced.
		<b>5.1.3</b> Use of targeted on-water inspections	Fishery inspections are conducted on the water or while a fishing vessel is at sea and there are specified targets for the number of inspections that occur.  Fishery inspections are official checks and, where necessary, investigations of fishing vessels, gear, catch, licenses and permits to ensure compliance with fishery regulations.  This includes planned or spontaneous inspections.  Targets may be indicated as a frequency or total number of inspections, or any other metrics, and may or may not be publicly available.  Inspections must be implemented/enforced.
		<b>5.1.4</b> Primary agency that conducts fisheries inspections	Type of authority responsible for conducting most fisheries inspections in national waters.  Authorities include the fisheries authority, coastguard, military personnel, customs officers etc.  Fishery inspections are official checks and, where necessary, investigations of fishing vessels, gear, catch, licenses and permits to ensure compliance with fishery regulations.  Inspections may take place on the water, at sea, in port or on land.
		<b>5.1.5</b> Use of randomised inspections	There are randomised fisheries inspections.  Randomised inspections refer to non-targeted checks of catch, landings and related documentation (logbooks, licenses, permits etc.).  Inspections may take place on the water, at sea, in port, or on land.

Attribute	Attribute Description	Indicator	Indicator Description
		<b>5.1.6</b> Risk-based prioritisation process for inspections	There is a risk-based prioritisation process for fisheries inspections.  This includes the prioritisation of fisheries patrols or inspections based on the calculated risk of an offense occurring. These assessments can be quantitative or qualitative.
5.2 Severity of fishery sanctions	Severity of fisheries sanctions for violating fishing laws, rules and regulations	<b>5.2.1</b> Use of graduated sanctions	Graduated sanctions are used to penalise fishing offences.  Graduated sanctions refer to penalties that increase with the severity and frequency of fisheries misbehaviour, violations or relapses.  These sanctions may or may not be previously or consistently applied.
		<b>5.2.2</b> Maximum penalty for fisheries offences	Penalties for fisheries violations include imprisonment and other sanction types.  Violations include any non-compliance with fisheries laws, rules and regulations.  Imprisonment refers to jail term, for any duration of time.  Other sanctions include small or large fines, confiscation of catch, fishing gear or fishing vessel, loss of licence, closure of fishing facilities and repayment of financial aid.  These sanctions may or may not be previously or consistently applied.
5.3 Integrity of the fisheries enforcement system	Opportunities for corruption and perceived integrity of authorities in enforcing fisheries laws, rules and regulations	<b>5.3.1</b> Complexity of licence approval process	The number of people and administrative levels involved in the granting of a new fishing licence or permit.  A licence or permit is a document giving the holder the right to operate in a fishery according to the terms established by the regulating authority.
		<b>5.3.2</b> Perceived integrity of the judicial system	Perceived integrity of the judicial system based on the frequency in which the government publicly attacks the judiciary's integrity.  Attacks include prepared statements by the media, press conferences, interviews and stump speeches. <sup>35</sup>
		<b>5.3.3</b> Routine removal of corrupt or inept judges from post	Frequency in which corrupt or inept judges are removed from their posts or are otherwise disciplined when found to be responsible for serious misconduct.  Misconduct refers to any action considered to be unethical or otherwise violating the judge's obligations to remain impartial, such as accepting bribes or other personal favours, violent or hostile behaviour. <sup>36</sup>
		<b>5.3.4</b> Prevalence of executive bribery or corrupt exchanges	Frequency in which members of the executive, or their agents, grant favours in exchange for bribes, kickbacks or other material inducements.  Executives refers to head of state, head of government and cabinet ministers. <sup>37</sup>

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Attribute	Attribute Description	Indicator	Indicator Description
5.4 Absence of high-risk fishing activities	Absence of vessels considered to be high-risk for illegal, unreported and unregulated fishing	<b>5.4.1</b> Observed fishing by vessels operating under a recognised flag of convenience (NEGATIVE)	Proportion of observed foreign and domestic fishing activity in national waters undertaken by vessels that are operating under a recognised flag of convenience.  Foreign refers to any vessel flying a flag other than that of the country in whose exclusive economic zone (EEZ) it is operating.  Domestic refers to any vessel flying the flag of the country in whose exclusive economic zone (EEZ) it is operating (i.e. not foreign).  A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities.  Vessels may be operating in a country's national waters legally or illegally but does not include vessels fishing in the EEZs of their immediate neighbours.  A flag of convenience is defined as a vessel that flies the flag of a country other than the country of ownership, for whatever reasons of convenience, as declared by the International Transport Workers' Federation Fair Practices Committee.
		<b>5.4.2</b> Observed port visits by fishing and carrier vessels operating under recognised flags of convenience (NEGATIVE)	Proportion of foreign fishing or fish carrier vessels observed visiting a country's ports that are operating under a recognised flag of convenience.  Foreign refers to any vessel flying a flag other than that of the country in whose exclusive economic zone (EEZ) it is operating.  A fishing vessel refers to any vessels used, or intended for use, for the purposes of the exploitation of living marine resources, including mother ships and vessels directly engaged in fishing activities.  Carrier vessels refer to large-scale 'reefers' (defined as vessels primarily involved in transhipment in port) and 'specialised reefers' (defined as vessels that are capable of transhipment at sea). This definition excludes 'container reefers' (defined as cargo vessels that carry refrigerated containers, small-scale fish tenders, or vessels often associated with aquaculture).  A flag of convenience is defined as a vessel that flies the flag of a country other than the country of ownership, for whatever reasons of convenience, as declared by the International Transport Workers' Federation Fair Practices Committee.

#### Dimension 6:

### Stakeholder engagement and participation

Stakeholder engagement and participation assesses the capacity of stakeholders, including fishers and fish processers, governmental and non-governmental organisations, research institutions and local

communities, to meaningfully participate in fisheries governance and management processes.

This includes the opportunities provided to stakeholders to engage in management, for example, through the devolution of management, and the capacity of stakeholders to take advantage of those opportunities, including through worker groups or representative bodies.

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Attribute	Attribute Description	Indicator	Indicator Description
6.1 Opportunities for stakeholder participation	Opportunities provided to fisheries stakeholders to meaningfully participate in fisheries decision-making processes	<b>6.1.1</b> Responsibility of fisheries authority to include fishers in management processes for the most valuable fishery	The fishery authority has a formal responsibility to involve fishers in fisheries decision-making processes in the most valuable fishery.  A formal responsibility refers to an official obligation that is indicated in fishery policy but may or may not be legislated.  Most valuable fishery refers to a species or stock that makes the most significant contribution to a country economically or socially. This is used as a proxy for the best managed fishery, as management intensity expected to be higher compared with other fisheries.
		<b>6.1.2</b> Lowest administrative division at which management decisions are made	Lowest administrative division at which fisheries decisions or recommendations can be made.  Administrative division refer to sub-national jurisdictions or regions, including states, provinces, municipals and local communities.
		<b>6.1.3</b> Use of community-based and/or customary management arrangements	Community-based or customary arrangements are used to manage fisheries.  Community-based management includes locally developed, decentralised management approaches in which user communities are ceded the rights and responsibilities for managing their own resources. 45  Customary management refers to fisheries administration based on a particular society's or place's customs or traditional practices, such as taboo areas, spiritual or religious closures, rules supporting cultural harvesting practices, inheritance, or ancestral access rules, etc.  These approaches may or may not be facilitated by government.

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Attribute	Attribute Description	Indicator	Indicator Description
6.2 Stakeholder agency and capability to participate in management	Stakeholders' capacity to act independently and meaningfully participate in fisheries management and decision-making processes	<b>6.2.1</b> Prevalence of fisher working groups or organisations	Proportion of a country's fisheries that have fisher or fishing worker groups or organisations.  Fisher or fishing worker groups promote the coordination and consultation of fisheries stakeholders (fishers, fish traders, processors etc.) in management processes.
		<b>6.2.2</b> Publication of fisheries management meeting notes	Minutes of fishery management meetings are published and made publicly available.  Minutes refers to notes that are recorded during a meeting, highlighting the key issues and actions discussed.  Fishery management meetings may involve information gathering, planning, decision-making and allocation of resources by which the fisheries management authority, or other relevant body, controls present and future fishery-related activities (such as catch limits or licensing requirements).  Publicly available means freely available and accessible by members of the public.
		<b>6.2.3</b> Stakeholders' involvement in management processes	Diversity of stakeholders involved in a country's fisheries management processes.  A stakeholder is any group(s) or individual with an interest or claim (whether stated or implied) in fisheries objectives and outcomes.  This includes the following types of interest groups:  • fisheries scientists  • fisheries industry and cooperative representatives  • elected government officials  • non-governmental organisations  • other civil society groups  • Indigenous representatives.  Fisheries management processes refer to fisheries meetings, committees, consultations, information gathering, planning, decision-making etc.

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