



# Key Coastal Countries' Inclusion of Fisheries in Their Nationally Determined Contributions (NDCs)

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# I. Introduction: The Importance of Fisheries for Climate Adaptation and Mitigation

Wild catch fisheries are crucial for adaptation. Alongside overfishing, climate change is among the biggest threats to wild catch fisheries. Adopting management practices that will keep catch numbers stable as the ocean warms and becomes more acidic and extreme weather events become more intense and more frequent is therefore crucial to maintaining livelihoods and food security in developing countries, which consume more than 75 percent and produce more than 80 percent of global fish supply.<sup>1</sup> Since fish also supply important nutrients often lacking in the diets of the poor, maintaining catch levels can also help to prevent a rise in malnutrition that might otherwise occur.<sup>2</sup>

Less obviously, and perhaps surprisingly, wild catch fisheries also have an important role to play in mitigation. From this perspective, their importance stems from the warming potential of food consumption. Primarily because of increased demand for particularly greenhouse gas-intensive foods such as ruminant meat and dairy, food consumption alone could increase global temperatures by as much as 1.1 degrees Celsius, making it impossible to achieve Paris climate goals.<sup>3</sup> While a variety of strategies will be necessary to prevent this increase in temperatures, there is no getting around the fact that consumption patterns will have to change.<sup>4</sup> In particular, diets need to shift away from the most greenhouse gas-intensive foods and toward lower-emission alternatives. Since wild catch fisheries cannot sustainably supply significantly more food than they do already, there can be no question of satisfying growing demand for meat and dairy with wild fish. Rather, the key is to keep catch numbers as high as can be sustained. This is because wild-caught fish are among the most climate-friendly sources of protein. If catch numbers were to fall, prices for fish would increase, and consumers who would have chosen fish might instead choose a higher-emissions alternative. By avoiding overfishing and planning for climate impacts in their management strategies, countries can help to prevent a drop in the supply of one of the most climate-friendly sources of dietary protein.<sup>5</sup>

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<sup>1</sup> Tim Searchinger, Richard Waite, Craig Hanson, Janet Ranganathan, and Emily Matthews, *Creating a Sustainable Food Future: A Menu of Solutions to Feed Nearly 10 Billion People by 2050*, (Washington, D.C.: World Resources Institute), July 19, 2019, available at <https://www.wri.org/research/creating-sustainable-food-future>, p. 288.

<sup>2</sup> Ibid.; Daniel F. Viana, et al., "Nutrient supply from marine small-scale fisheries," *Sci Rep* 13, 11357 (2023), <https://www.nature.com/articles/s41598-023-37338-z>.

<sup>3</sup> Ivanovich et al. "Future Warming from Global Food Consumption," *Nature Climate Change* 13 (2023): 297-302, <https://doi.org/10.1038/s41558-023-01605-8>.

<sup>4</sup> See, *inter alia*, Claudia Arndt, et al., "Full adoption of the most effective strategies to mitigate methane emissions by ruminants can help meet the 1.5 °C target by 2030 but not 2050," *PNAS* 119, no. 20 (2022), <https://doi.org/10.1073/pnas.2111294119>; Catherine C. Ivanovich, et al., "Future Warming from Global Food Consumption," *Nature Climate Change* 13 (2023): 297-302, <https://doi.org/10.1038/s41558-023-01605-8>; and Michael A. Clark, et al., "Global food system emissions could preclude achieving the 1.5° and 2°C climate change targets," *Science* 370 (2020): 705-708, <https://doi.org/10.1126/science.aba7357>.

<sup>5</sup> For data on the relative environmental impact of blue foods compared to land-based animal foods, see Gephart, et al., "Environmental performance of blue foods," *Nature* 597, 360-365 (2021), <https://doi.org/10.1038/s41586-021-03889-2> and Bianchi, et al., "Assessing seafood nutritional diversity together with climate impacts informs more comprehensive dietary advice," *Commun Earth Environ* 3, 188 (2022), <https://doi.org/10.1038/s43247-022-00516-4>.

Against this backdrop, Climate Advisers sought to understand the extent to which key coastal countries appreciate the importance of fisheries for adaptation and mitigation. This report presents the results of that analysis, describing the types of commitments countries are making, rating countries' commitments, and identifying areas where civil society and philanthropic engagement could help to move the needle.

## II. Methodology

For the purposes of this analysis, there are two key types of coastal country: those that catch the most fish, and those to whose fisheries climate change poses the greatest risk. Countries in the first group are those that most need to take steps to ensure they are not overharvesting the resource. For those in the second, there is a greater need than anywhere else to take steps to suitably adapt food systems and economies to climate impacts. Identifying countries in the first category was easy: we simply drew on FAO data to determine which ten countries are the top global fish producers.<sup>6</sup> By contrast, identifying countries in the second category was a bit more complicated, both because climate change threatens fisheries in a variety of ways and because climate impacts on fisheries might cause more or less harm to a country depending on a multitude of factors. To identify countries in this class, we relied heavily on The Nature Conservancy's Fisheries@Risk Index.<sup>7</sup> This index seeks to identify those countries whose fisheries are most at risk from climate change by combining data on the extent to which climate change will impact a country's fisheries and fishers with data on the extent to which countries depend on fisheries and can adapt to climate impacts to assign overall risk scores. Relevant climate impacts include those from ocean acidification, sea surface temperature increases, and extreme weather events. Relevant forms of dependence on fisheries include economic dependence (i.e., dependence on fisheries for jobs or revenue) and dependence on fisheries for calories or key nutrients. We included the top twenty countries in the Fisheries@Risk Index.

However, since the Fisheries@Risk Index combines several categories of risk, we worried that stopping here might leave out some countries with very high risk of one sort but lower levels of risk of other sorts. To address this concern, we included the top ten countries on several other lists, some from The Nature Conservancy's report and some from other sources. Specifically, we included countries in the following categories:

- Countries whose fisheries are most exposed to the physical impacts of climate change (per TNC)
- Countries whose fisheries are most vulnerable to climate impacts, in the sense that the physical impacts of climate change will have the greatest effects on them (per TNC)

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<sup>6</sup> FAO, *The State of World Fisheries and Aquaculture 2022: Towards Blue Transformation*, (Rome: FAO, 2022), <https://doi.org/10.4060/cc0461en>.

<sup>7</sup> Heck, N., Beck, M. W., Agostini, V., Reguero, B., Pfliegner, K., Mucke, P., Kirch, L., and Ricker M., *Fisheries at Risk - Vulnerability of Fisheries to Climate Change*, Summary Report, (Berlin: The Nature Conservancy, 2022), <https://www.nature.org/content/dam/tnc/nature/en/documents/Fisheries-at-Risk-Summary-Report.pdf>.

- Countries that have the least capacity to adapt to climate impacts on their fisheries (per TNC)
- Countries whose fisheries are most sensitive to climate change, a metric that combines vulnerability and low adaptive capacity (per TNC)
- Countries that are highly dependent on fish for food or nutrients. These were countries that fell either into TNC's top ten most dependent on fish for food or countries that a recent *Nature* analysis identified as having both a high prevalence of inadequate micronutrient intake and reliance on small-scale fisheries for the supply of key nutrients.<sup>8</sup>
- Countries most economically dependent on fisheries. These were countries that either had the highest portion of GDP coming from fisheries according to FAO data or that were in the top 10 for economic dependence according to TNC.<sup>9</sup>
- Countries most dependent on fish for jobs (per TNC)

Many of these countries were already included in the top twenty Fisheries@Risk group, but some were not.

Once we had sorted countries into all these categories, we tallied up the number of categories each fell into and, to make the analysis tractable, excluded those that only fell into one, as well as any countries that lacked Nationally Determined Contributions (NDCs). Finally, we surveyed the list of countries excluded and added back in any countries that, for one reason or another, we felt were worth including. For instance, we included Japan despite the fact that it was only on the list of major fish producers because there is a chance that NGO advocacy there could be highly influential. For more details regarding the selection rationale for countries included in the analysis, see our focus country spreadsheet.

Once we had settled on a list of focus countries, we went through each of their NDCs and, where applicable, their National Adaptation Plans (NAPs), searching for keywords such as "fish," "oceans," "marine," etc., making notes about commitments in key areas. Finally, we consulted relevant publications and a fisheries expert to sort our 37 focus countries' commitments into four categories:

1. Green
2. Light green
3. Yellow
4. Red

A ranking of **green** indicates that the relevant country's NDC recognizes and outlines steps to address vulnerabilities in its fisheries and/or improve its fishing practices. These actions include sustainable fisheries management, blue carbon management, and monitoring systems.

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<sup>8</sup> Viana, et al., "Nutrient supply from marine small-scale fisheries."

<sup>9</sup> FAO, *The State of World Fisheries and Aquaculture 2022*.

A ranking of **light green** indicates that the relevant country's NDC recognizes and describes steps that could address vulnerabilities in its fisheries. However, the country's NDC falls short in some way. For instance, it might acknowledge and outline appropriate steps to address some vulnerabilities but not all, or the actions described may not fully address the country's vulnerabilities.

A ranking of **yellow** indicates that the relevant country's NDC acknowledges risks to its fisheries but does not outline steps to address them.

A ranking of **red** indicates that the relevant country's NDC does not mention its vulnerabilities.

### III. Findings

The tables below summarize our ratings of our 37 focus countries. A "\*" by a country's name indicates that the country is taking steps on fisheries that would have boosted its rating had these other actions been included in its NDC. In these instances, we have included details in our appendix. A "†" by a country's name indicates that this country has indicated it will not be able to implement its fisheries-related commitments without outside funding.

Major Fish Producers			
Chile		Indonesia	Norway*
		Viet Nam	United States*
		Peru	China
			India
			Japan

Countries at Most Risk			
Belize†	Bangladesh†	Cameroon	
Cambodia†	Kiribati†	Ghana	
Fiji†	Madagascar†	Iceland	
Liberia†	Mexico†	Iraq	
Maldives†	Micronesia†	Samoa	
Mauritius†	Nigeria†	Solomon Islands	
Myanmar†	St. Vincent & the Grenadines†	Philippines	
Somalia†	Sierra Leone†	Togo	
Sri Lanka†	Tonga†	São Tomé and Príncipe†	
Vanuatu†			

Among major fish-producing countries, the best NDCs outlined plans to establish and sustainably manage marine protected areas to preserve fish stocks, prevent overfishing, and adapt to climate change. Chile, for example, committed to protect at least 10 percent of its vulnerable marine ecoregions under marine spatial planning frameworks by 2030. It also

committed to implement management plans for all of its marine protected areas by 2030; these would be enforced through monitoring and control programs and evaluated for efficacy. Countries rated yellow acknowledged their vulnerability to the impacts of climate change on their fisheries but did not describe management or adaptation strategies to effectively address these vulnerabilities. For example, Indonesia described the risk climate change poses to its marine resources, but its ocean-based targets focus on mangrove management and ocean pollution control without acknowledging their connection to fisheries. Countries rated red did not recognize any risk to fisheries in their NDCs from climate change or overfishing and tended to prioritize mitigating emissions over adapting to potential impacts. For example, China's NDC described the potential for enhancing the carbon sequestration capacity of mangroves and the ocean but did not mention any risk to its fisheries or any strategies to alter its fishing practices. Notably, Japan—which, like China, does a good deal of distant-water fishing—also did not outline any plans to alter its fishing practices.

Among the countries to whose fisheries climate change poses the greatest risk, the best NDCs were those that both promoted sustainable fisheries management as a strategy for adapting to changing climate conditions and invested in building adaptive capacity for local communities. The Maldives, for example, committed to fisheries development initiatives focused on building resilience to changing fish stocks and migration patterns. It also called for income diversification programs to foster adaptive capacity in vulnerable fishing communities. Finally, it laid out a plan to structure private, governmental, and international financing to achieve these goals, which were not described as conditional. Countries rated yellow considered the risk to fisheries arising from climate change in their NDCs but did not have any mitigation or adaptation targets relating to fisheries. For example, in its NDC, Ghana stated that its rural population is heavily reliant on fisheries, but none of its commitments have anything to do with fisheries protection or management.

Among the countries included in our analysis, we saw commitments relevant to fish and fisheries in the following areas:

- **Blue carbon and the blue economy.** For example, Mexico's NDC commits to the conservation and restoration of blue carbon ecosystems, such as mangrove forests.
- **Marine protected areas (MPAs) or other effective area-based conservation measures (OECMs).** For example, Fiji's NDC targets the establishment of 30% of its EEZ as a marine protected area, to be fully managed by 2030.
- **Sustainable or climate-ready fisheries management.** For example, Myanmar's NDC commits to resilient and climate-smart fisheries, through sustainable and science-based management practices that adapt to a changing climate.
- **Income diversification and capacity building for fishers.** For example, Belize's NDC commits to explore the development of alternative livelihood plans for fishers and their households for capacity building, especially in local and indigenous communities.
- **Monitoring and data collection.** For example, Vanuatu's NDC sets a target to monitor and evaluate the state of coastal fisheries.

- **Coastal zone management.** For example, Liberia's NDC calls for the restoration of coastal ecosystems and coastal resource protection.

We noted several interesting trends among countries' NDCs.

- While a few countries included fisheries-related commitments in the mitigation sections of their NDCs, most countries only included such commitments in the adaptation sections of their NDCs.
- All countries to whose fisheries climate change poses the greatest risk recognized and described their vulnerabilities in their NDCs, although not all set targets to mitigate these risks.
- 21 countries described mitigation or adaptation targets for fisheries that were conditional, meaning that targets can only be met if financial or technical assistance is secured.
- 9 countries recognized their fisheries' vulnerability to climate change but made no further commitments to addressing the issue.
- 13 countries set targets relating to blue carbon activities, such as conserving and restoring mangroves.
- 20 countries committed to establishing marine protected areas or improving management of existing protected areas.
- 15 countries called for some form of income or livelihood diversification programs to build adaptive capacity in local communities.
- 16 countries committed to coastal zone management or protection.
- 11 countries expressed commitments to broadening data collection and monitoring of their fisheries to better adapt to changing climatic conditions.

We also noticed some significant gaps in countries' commitments.

- Though many countries mention both fisheries and blue carbon ecosystem conservation and restoration, they tend not to make the connection between their blue carbon efforts and the health of their fish stocks.
- While some included commitments related to emissions from fishing vessels, countries appear not to understand the role that sustainable fisheries management could play in efforts to reduce food system emissions.
- None of the top 10 fish-producing countries included any commitments regarding distant-water or high-seas fishing.
- Commitments regarding fishing gear, the fishing fleet, and processing (particularly food loss) were uncommon.
- Countries appear not to be making commitments regarding the drivers of habitat degradation & loss.
- Many countries are committing to "exploring possibilities" or "assessing potential" rather than committing to concrete actions.

- We did not see anything in any of our focus countries' NDCs about reforming or eliminating subsidies to reduce the fish catch to a sustainable level, though several of the major fish-producing countries (including Japan, China, and the United States) have signed the WTO fisheries subsidies agreement.
- Nor did we see any language about taking steps to ensure any access agreements are equitable and non-exploitive.
- We saw very few targets relating to supporting food security for communities reliant on fisheries.

For further details regarding each of our focus countries' NDCs, please see the attached appendix.

## IV. Recommendations

The trends and gaps we noticed suggest that several interventions by WFF could help to improve countries' fisheries-related commitments in the next round of NDCs, due by COP30 in Brazil.

1. **Fisheries Solutions Dialogue.** While all of the at-risk countries included in our analysis recognize the vulnerability of their fisheries to climate change, many did not include concrete actions to address these vulnerabilities in their NDCs, suggesting that they are not sure what to do. To help remedy this, WFF could fund a diplomatic dialogue that would bring together relevant policymakers in coastal countries to share best practices on fisheries management, adaptation, and integrating fisheries into NDCs. This could be modelled on the forest solutions dialogue, which aimed to help countries better understand how to integrate tropical forest measures in their NDCs.
2. **Risk assessment tools and technical assistance for vulnerable countries.** Though most vulnerable countries appear to understand that climate change threatens their fisheries, we believe that, in many cases, they lack a detailed picture of exactly how climate change will affect them. In part, this is likely due to a lack of technical capacity to do relevant modelling and analysis. Regardless, obviously these countries will not be well placed to prepare for future climate impacts if they are not sure what to expect. To address this issue, WFF and other funders could explore the utility and feasibility of developing tools that could pool existing data regarding regional impacts on oceans and fish populations and sound management strategies to help countries better understand the risks they face and implement appropriate strategies. The development of these tools could then be funded either directly by philanthropy or by developed countries with experience and expertise in climate-smart fisheries management. In the latter case, the relevant developed country or countries could also provide direct technical assistance to vulnerable countries through a designated team of fisheries experts.

- 3. Drawing attention to neglected topics.** We noticed several areas where countries are not doing enough, or where their understanding of the issues may be lacking. To the extent that this is because they do not understand what they should be doing, the Fisheries Solutions Dialogue could help. Instead of or in addition to that initiative, WFF could fund efforts to raise the profile of specific areas. Candidate topics include the need for efforts to address the drivers of fish habitat degradation and loss, food loss, and the connection between fuel efficiency measures and subsidies for fishers on the one hand and overfishing on the other.

The need for efforts to address the drivers of habitat degradation and loss is clear enough; however, the other two topics deserve more explanation.

Food loss and waste is an important source of emissions, accounting for 6% of total greenhouse gas emissions and about 14% of anthropogenic methane.<sup>10</sup> A lack of cold storage capacity is an important contributor to food loss in fisheries supply chains, since it limits the length of time fishers can store fish in markets prior to spoilage. We saw little about this issue in countries' NDCs and nothing about the need to ensure that any new refrigeration units are energy-efficient and use climate-friendly refrigerants, both of which are essential if cold chain technology is to be a net climate win.<sup>11</sup> In addition to mitigation benefits, reducing food loss could also boost fishers' incomes (by enabling them to sell more of the fish they catch).

Fuel efficiency increases are sometimes touted as a strategy for mitigating emissions from the fishing fleet, and it is true that they may do this. If, however, they also save fishers money on fuel, they could incentivize increased fishing, which could contribute more fishing pressure to climate-vulnerable stocks. Similarly, subsidies for fisheries, though perhaps intended to increase fishers and fisheries resilience to climate change, can in fact harm fisheries when they lead to increased fishing. In our Annex, we highlight this kind of risk in our discussion of São Tomé and Príncipe's NDC. In each case, it is important that countries understand these possible tradeoffs.

- 4. Fish in the protein transition.** Finally, WFF could fund efforts to socialize the idea that sustainable fisheries management is an important part of aligning food systems with climate goals. Since many of their NDCs were among the lowest rated of all those analyzed, our sense is that this is not well understood by most major fish producing countries. Since it is more important for these countries than for any others to show appropriate restraint in their fishing activities to keep fish stocks high, this is a problem. Targeted publications, events, webinars, and outreach to governments could help. Among other things, these sorts of

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<sup>10</sup> For the GHG figure, see Hannah Ritchie, "Food waste is responsible for 6% of global greenhouse gas emissions," *Our World in Data*, March 18, 2020, <https://ourworldindata.org/food-waste-emissions>. The methane figure is derived from the figures for total anthropogenic emissions and food loss and waste emissions in the Global Methane Assessment; see United Nations Environment Programme and Climate and Clean Air Coalition, *Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions* (henceforth GMA), (Nairobi: United Nations Environment Programme, 2021), pp. 29, 114.

<sup>11</sup> For more on this point, see Manu Ravishankar, Sophie Bordat, and David Aitken, "Net Zero Cold Chains for Food: A Discussion Document on the Case for Philanthropic Action," Carbon Trust, September 2020, <https://www.carbontrust.com/our-work-and-impact/guides-reports-and-tools/net-zero-cold-chains-for-food>.

efforts could make the case for including language in the guidance issued to countries regarding their NDCs that would urge even those countries (like the United States and Japan) that are wealthy enough to secure adequate fish supplies for themselves in the event of a decline in catch numbers to see such a decline as a threat to climate goals. A grantee could also develop model text for negotiators to propose for inclusion in guidance documents.



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# Annex: Country-by-country Overview of NDCs

This Annex offers key details regarding each of our focus countries' NDCs. Because the situation is so different for major producing countries on the one hand and vulnerable countries on the other, we have separated them into two distinct groups, with producers listed first and vulnerable countries second. Countries within each group are listed alphabetically. In addition, we have added a key piece of information for major producing countries that is not included for vulnerable countries: the areas where they do the most fishing (i.e. within their own EEZs or elsewhere). This is because keeping catch numbers stable will require different actions of each kind of major producer.

## Major Producing Countries

### CHILE

Country rating: Green

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/Chile%27s\\_NDC\\_2020\\_english.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/Chile%27s_NDC_2020_english.pdf)

Country category: Major producer

Rationale for inclusion: Major producer

Commitment types: Marine protected areas or other effective area-based conservation measures; sustainable or climate-ready fisheries management; coastal zone management

Location of fishing activities: Chile's fishing industry is largely limited to the borders of its EEZ.

Notes: Chile is a top producing country. Its NDC focuses on marine protected areas and effective management strategies, which are necessary to preserve stock. The NDC calls for new protected areas, identified using criteria related to climate change impacts. These areas are to be established in coastal ecosystems, wetlands, and marine areas. Further, it calls for management plans that consider adaptation to climate change in all marine protected areas.

### CHINA

Country rating: Red

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/China%E2%80%99s%20Achievements%2C%20New%20Goals%20and%20New%20Measure%20for%20Nationally%20Determined%20Contributions.pdf>

Country category: Major producer

Rationale for inclusion: Major producer

Commitment types: Blue carbon or blue economy

Location of fishing activities: China is the world's largest distant waters producer, and its distant waters and high seas industries are almost entirely subsidized by the government. Its fishing activities outside its EEZ are believed to be underreported, with several Chinese vessels registered under flags of convenience. Chinese fleets have engaged in IUU fishing in several

regions, such as the Galapagos, Latin America, and Taiwan, and China disputes South China Sea territorial borders.

Notes: China's NDC notes that the country is investing in increasing the carbon sequestration activity of the ocean and of mangroves. However, it does not mention fisheries protection or management. Outside of its NDC, China has taken some steps towards fishery sustainability. The country recently signed the WTO's Fisheries Subsidies Agreement, which delineates consequences for WTO members that issue harmful fisheries subsidies or fund industrial fleets that enable overfishing. However, there is little reason to believe these measures will have a significant impact on China's notoriously excessive distant-water fishing activities.

## **INDIA**

Country rating: Red

NDC: <https://unfccc.int/sites/default/files/NDC/2022-08/India%20Updated%20First%20Nationally%20Determined%20Contrib.pdf>

Country category: Major producer

Rationale for inclusion: Major producer

Commitment types: None

Location of fishing activities: India does not engage in distant water or high seas fishing and is currently working to expand its fishing activities into its full EEZ.

Notes: India's NDC calls for investments in development programs in sectors vulnerable to climate change, including coastal regions. It makes no mention of fishery or marine vulnerabilities. However, outside of its NDC, India has taken steps towards sustainable fishery development, such as banning fishing during breeding season.

## **INDONESIA**

Country rating: Yellow

NDC: [https://unfccc.int/sites/default/files/NDC/2022-09/23.09.2022\\_Enhanced%20NDC%20Indonesia.pdf](https://unfccc.int/sites/default/files/NDC/2022-09/23.09.2022_Enhanced%20NDC%20Indonesia.pdf)

Country category: Major producer

Rationale for inclusion: Major producer

Commitment types: Coastal zone management, blue carbon or blue economy

Location of fishing activities: However, Indonesian fleets largely stay within their EEZ, although IUU fishing is a significant problem.

Notes: Indonesia's NDC highlights coastal zone protection as a target. Actions falling under this include adaptation policies and programs for coastal zones and the ocean, as well as the development of climate resilience for these areas. This specifically includes ecosystem-based adaptation, mangrove management, and ocean pollution control. However, it does not describe or address risks to fisheries in particular. Indonesia is one of the largest sources of labor in global fishing fleets.

## **JAPAN**

Country rating: Red

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/JAPAN\\_FIRST%20NDC%20%28UPDATED%20SUBMISSION%29.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/JAPAN_FIRST%20NDC%20%28UPDATED%20SUBMISSION%29.pdf)

Country category: Major producer

Rationale for inclusion: Major producer

Commitment types: None

Location of fishing activities: Japan's fishing industry is subsidized for distant water fishing, but its distant-waters fisheries activity has declined in the past two decades. Japan currently accounts for about 10 percent of global distant waters fishing.

Notes: Japan's NDC lists fisheries as a sector relevant for energy-related GHG emissions but does not list targets or actions related to fishery protection or management. It mentions its 2021 Strategy for Sustainable Food Systems, MeaDRI (Measures for achievement of Decarbonization and Resilience with Innovation), which aims to "enhance productivity potentials and ensure sustainability in a compatible manner through innovation." Outside of its NDC, Japan recently signed the WTO's Fisheries Subsidies Agreement, which determines disciplines for WTO members that issue harmful fisheries subsidies, or those that fund industrial fleets and enable overfishing.

## **NORWAY**

Country rating: Red

NDC: [https://unfccc.int/sites/default/files/NDC/2022-11/NDC%20Norway\\_second%20update.pdf](https://unfccc.int/sites/default/files/NDC/2022-11/NDC%20Norway_second%20update.pdf)

Country category: Major producer

Rationale for inclusion: Major producer

Commitment types: None

Location of fishing activities: Almost all of Norway's fishing activity occurs within its EEZ.

Notes: Norway is a top producing country. Its NDC does not describe any fishery, marine, or coastal resource-related targets. Its NDC focuses primarily on its emissions mitigation strategies. Outside of its NDC, Norway is committed to ecosystem-based fisheries management. Its fishing industry is highly regulated, with quotas and licensing requirements to prevent overfishing and IUU fishing. Almost all fishing activity occurs within its EEZ.

## **PERU**

Country rating: Yellow

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Reporte%20de%20Actualizacio%CC%81n%20de%20las%20NDC%20del%20Peru%CC%81.pdf>

Country category: Major producer

Rationale for inclusion: Major producer

Commitment types: Sustainable or climate-ready fisheries management

Location of fishing activities: Peru fishes within its EEZ and is working to combat IUU fishing in its waters, primarily from Chinese fleets.

Notes: Peru's NDC establishes fishing and aquaculture as a key sector for adaptation and resilience measures, including sustainable management. It states that it will establish adaptation targets for its fisheries but does not elaborate on what those would be. It also describes technical and financial needs. However, it does not adequately address its risks relating to overfishing as a top producing country.

## **UNITED STATES OF AMERICA**

Country rating: Red

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/United%20States%20NDC%20April%2021%202021%20Final.pdf>

Country category: Major producer

Rationale for inclusion: Major producer

Commitment types: Blue carbon or blue economy

Location of fishing activities: The United States has fishing fleets authorized to operate in the high seas and in other countries' EEZs.

Notes: The United States of America is a top producing country. Its NDC states that it will support nature-based coastal resilience projects, including efforts to increase sequestration through blue carbon projects. However, it does not include any fisheries-based targets. The United States is one of the top seven countries most significantly contributing to harmful fishing subsidies. Outside of its NDC, the US has made efforts on fishery sustainability. For example, the US recently signed the WTO's Fisheries Subsidies Agreement, which determines disciplines for WTO members that issue harmful fisheries subsidies, or those that fund industrial fleets and enable overfishing. The 2023 Ocean and Climate Plan outlines actions intended to implement nature-based solutions for coastal and ocean ecosystems. It also plans to improve community resilience to ocean change. Finally, following the passage of the Maritime SAFE Act, the United States is working to implement a whole-of-government approach to combating IUU fishing across the globe.

## **VIET NAM**

Country rating: Yellow

NDC: <https://unfccc.int/sites/default/files/NDC/2022-11/Viet%20Nam%20NDC%202022%20Update.pdf>

Country category: Major producer

Rationale for inclusion: Major producer

Commitment types: None

Location of fishing activities: The Vietnamese fishing industry struggles with IUU fishing, with many fishing fleets illegally fishing in other countries' EEZ due to lack of stock in their own EEZ.

Notes: Viet Nam's NDC acknowledges its vulnerability to the effects of climate change on its fisheries. While it references Viet Nam's 2017 Law on Fisheries, the NDC does not outline further adaptation or mitigation strategies for fisheries. It also calls for further international support.

## Vulnerable Countries

### **BANGLADESH**

Country rating: Light green

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/NDC\\_submission\\_20210826revised.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/NDC_submission_20210826revised.pdf)

Country category: Vulnerable country

Rationale for inclusion: Countries that are highly dependent on fish for food or nutrients; Countries most dependent on fish for jobs

Commitment types: Sustainable or climate-ready fisheries management

Notes: Bangladesh's NDC describes a Climate Vulnerable Forum plan, called the "Mujib Climate Prosperity Plan," for Bangladesh. This plan identifies climate-resilience and nature-based fisheries development as a key initiative. It requires an investment framework to mobilize financing for the further development and implementation of this plan. However, the language used to describe these measures is vague and does not fully address Bangladesh's vulnerabilities.

### **BELIZE**

Country rating: Green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Belize%20Updated%20NDC.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Income diversification and capacity building, sustainable or climate-ready fisheries management, monitoring and data collection capacity, blue carbon and blue economy

Notes: Belize's NDC outlines a target of building capacity in its fisheries and aquaculture sector through research, diversification, and livelihoods support, alongside coastal ecosystem protection. Actions falling under this target encompass sustainable fisheries management paired with data collection, blue carbon management, conservation, and livelihoods support. In particular, the NDC outlines the following actions: build national capacity to gather climate data to inform management; develop and implement mangrove and fisheries conservation and management plans; develop and adopt fisheries regulations; explore the development of alternative livelihood plans for fishers and their households for capacity building, especially in local and indigenous communities. These actions are conditional on technical assistance for alternative livelihoods programs, and financial support for pilot programs to retrain fishers impacted by conservation measures.

## **CAMBODIA**

Country rating: Green

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/20201231\\_NDC\\_Update\\_Cambodia.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/20201231_NDC_Update_Cambodia.pdf)

Country category: Vulnerable country

Rationale for inclusion: Countries most dependent on fish for jobs; Countries whose fisheries are most sensitive to climate change

Commitment types: Income diversification and capacity building, sustainable or climate-ready fisheries management

Notes: Cambodia's NDC includes adaptation targets to promote climate resilience in capture fisheries and promote aquaculture production systems that are adaptive to climate change. Actions falling under this target include enhancing livelihoods related to food security, reducing fishing pressure on marine resources, and sustaining fish yields. Cambodia's NDC stipulates that its targets are largely conditional and heavily dependent on international finance.

## **CAMEROON**

Country rating: Yellow

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/CDN%20r%C3%A9vis%C3%A9e%20CMR%20finale%20sept%202021.pdf>

Country category: Vulnerable country

Rationale for inclusion: Countries whose fisheries are most vulnerable to climate impacts; Countries that have the least capacity to adapt to climate impacts on their fisheries; Countries whose fisheries are most sensitive to climate change

Commitment types: None

Notes: Cameroon is highly vulnerable but has a low adaptive capacity. Its NDC commits to reducing the effects of climate change on the fisheries sector but provides no details on how this can be achieved or what its plans for doing so are. It also calls for international financing to meet its targets.

## **FIJI**

Country rating: Green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Republic%20of%20Fiji%27s%20Updated%20NDC%2020201.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Marine protected areas or other effective area-based conservation measures; sustainable or climate-ready fisheries management; coastal zone management; blue carbon or blue economy

Notes: Fiji's NDC calls for establishing 30% of its EEZ as a marine protected area, to be fully managed by 2030. It also calls for climate-smart practices for its natural resources, including

its coral reefs and coasts. Actions under this include the conservation and protection of its marine biodiversity and ocean ecosystems through sustainable fishing, coastal protection, mangrove management, and community support. Fiji needs additional financing for the transformational change its NDC calls for, but its NDC addresses its vulnerabilities.

## **GHANA**

Country rating: Yellow

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/Ghana%27s%20Updated%20Nationally%20Determined%20Contribution%20to%20the%20UNFCCC\\_2021.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/Ghana%27s%20Updated%20Nationally%20Determined%20Contribution%20to%20the%20UNFCCC_2021.pdf)

Country category: Vulnerable country

Rationale for inclusion: Countries most economically dependent on fisheries; Countries that are highly dependent on fish for food or nutrients

Commitment types: None

Notes: Ghana's NDC recognizes that 71% of its rural population is employed in agriculture, forestry, and fishing. However, it does not list any actions for fisheries or coastal management.

## **ICELAND**

Country rating: Yellow

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/Iceland\\_updated\\_NDC\\_Submission\\_Feb\\_2021.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/Iceland_updated_NDC_Submission_Feb_2021.pdf)

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: None

Notes: Iceland's NDC recognizes its vulnerability to the possible impacts of ocean acidification on its fisheries. However, it focuses primarily on mitigation efforts rather than adaptation.

## **IRAQ**

Country rating: Yellow

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Iraq%20NDC%20Document.docx>

Country category: Vulnerable country

Rationale for inclusion: Countries that have the least capacity to adapt to climate impacts on their fisheries; Countries whose fisheries are most sensitive to climate change

Commitment types: None

Notes: Iraq's NDC recognizes the vulnerabilities of its fisheries due to the impacts of climate change but does not outline mitigation or adaptation strategies relating to fisheries. It establishes a protected areas network but does not specifically mention marine protected areas.

## **KIRIBATI**

Country rating: Light green

NDC: <https://unfccc.int/sites/default/files/NDC/2023-03/221213%20Kiribati%20NDC%20Web%20Quality.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Coastal zone management, income diversification and capacity building

Notes: Kiribati's NDC calls for community-based fishery management and coastal resilience through coastal protection. However, the NDC does not describe education for communities or other measures that could ensure community-based management is effective. Additionally, Kiribati has significant funding needs.

## **LIBERIA**

Country rating: Green

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/Liberia%27s%20Updated%20NDC\\_RL\\_FINAL%20%28002%29.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/Liberia%27s%20Updated%20NDC_RL_FINAL%20%28002%29.pdf)

Country category: Vulnerable country

Rationale for inclusion: Countries that are highly dependent on fish for food or nutrients; Countries that have the least capacity to adapt to climate impacts on their fisheries

Commitment types: Blue carbon or blue economy, marine protected areas or other effective area-based conservation measures, sustainable or climate-smart fisheries management, income diversification and capacity building, coastal zone management

Notes: Liberia's NDC describes several mitigation and adaptation targets for fisheries and coastal resources. Mitigation targets include reduced GHG emissions through the avoidance of mangrove draining and enhanced coastal carbon stocks through restoration of coastal ecosystems. Adaptation targets range from expanded marine protected areas and climate-smart, community-based management to livelihood diversification. Liberia has significant funding needs for its NDC goals, but plans to mobilize private, bilateral, and multilateral financing.

## **MADAGASCAR**

Country rating: Light green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Madagascar%20INDC%20Eng.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Blue carbon or blue economy, coastal zone management

Notes: Madagascar's NDC outlines a target to implement Resilient Agriculture Integrated Models for mangroves and priority areas for fisheries. It also calls for the reinforcement of natural protection and vulnerability reduction for coastal and marine areas affected by climate change. However, these steps are defined vaguely and lack definitive plans for fishery

management. The document further outlines that a significant portion of its annual spending goes to the impacts of climate change, and further funding is needed to implement any such programs.

## **MALDIVES**

Country rating: Green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Maldives%20Nationally%20Determined%20Contribution%202020.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Sustainable or climate-ready fisheries management, income diversification and capacity building

Notes: The Maldives' NDC highlights fisheries development initiatives that focus on building resilience to changing fish stocks and migration patterns to promote sustainable fisheries. It also calls for income diversification to build adaptive capacity for vulnerable fishing communities. While the country has financing needs, its NDC lays out a plan to combine domestic, private, and international financing, creating new investment funds and scaling up budgetary allocations.

## **MAURITIUS**

Country rating: Green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Final%20Updated%20NDC%20for%20the%20Republic%20of%20Mauritius%2001%20October%202021.docx>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Sustainable or climate-smart fisheries management, income diversification and capacity building, blue carbon or blue economy, coastal zone management

Notes: Mauritius's NDC commits to the development of climate smart fisheries and aquaculture based on sustainable and integrated management plans. These plans are also intended to bolster the mitigation of emissions along the fishery supply chain. It also focuses on building adaptive capacity and resilience. It further commits to a blue economy integrated framework, combining coastal zone management and marine biodiversity conservation. Some of these targets are conditional on international finance.

## **MEXICO**

Country rating: Light green

NDC: [https://unfccc.int/sites/default/files/NDC/2022-11/Mexico\\_NDC\\_UNFCCC\\_update2022\\_FINAL.pdf](https://unfccc.int/sites/default/files/NDC/2022-11/Mexico_NDC_UNFCCC_update2022_FINAL.pdf)

Country category: N/A

Rationale for inclusion: Walton priority country

Commitment types: Blue carbon or blue economy, coastal zone management

Notes: Mexico's NDC commits to the conservation and restoration of blue carbon ecosystems and oceans. It also commits to strengthen instruments and implement actions for the restoration of marine, coastal, wetland, and freshwater ecosystems, with a focus on nature-based solutions. Mexico's commitments are conditional on international financial support. These restorative actions are beneficial, but do not address fishery management for adaptation to climate change.

## **MICRONESIA**

Country rating: Light green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-10/Updated%20NDC%20of%20the%20MICRONESIA.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Sustainable or climate-ready fisheries management, marine protected areas or other effective area-based conservation measures

Notes: Micronesia's NDC includes the unconditional target of effectively managing 50% of its marine resources by 2030, including restricting commercial fishing. It includes further targets to control fish aggregating devices and develop tuna fishing transparency. It also includes a target of expanding its protected area network, which is conditional on additional resources. These targets help control overfishing, but do not address the country's adaptive capacity needs.

## **MYANMAR**

Country rating: Green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Myanmar%20Updated%20%20NDC%20July%202021.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Sustainable or climate-ready fisheries management, income diversification and capacity building

Notes: Myanmar's NDC reiterates its need for resilient and climate-smart fisheries, through sustainable and science-based management practices that adapt to a changing climate. It further calls for increased adaptive capacity for vulnerable communities. Its financing and technical needs prevent full implementation, but the steps outlined address its adaptive capacity needs for both fisheries and local communities.

## **NIGERIA**

Country rating: Light green

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/NDC\\_File%20Amended%20\\_11222.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/NDC_File%20Amended%20_11222.pdf)

Country category: Vulnerable country

Rationale for inclusion: Countries that are highly dependent on fish for food or nutrients; Countries whose fisheries are most vulnerable to climate impacts; Countries that have the least capacity to adapt to climate impacts on their fisheries; Countries whose fisheries are most sensitive to climate change

Commitment types: Blue carbon or blue economy

Notes: Nigeria's NDC recognizes its vulnerabilities to climate change impacts on marine ecosystems, but its mitigation and adaptation targets only call for the protection and restoration of mangrove ecosystems. It also calls for additional financing.

## **PHILIPPINES**

Country rating: Yellow

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Philippines%20-%20NDC.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: None

Notes: The Philippine's NDC states that it will undertake adaptation measures for coastal and marine ecosystems and their biodiversity. However, it does not describe what these adaptation measures will be, or how they could address the country's vulnerabilities.

## **ST. VINCENT AND THE GRENADINES**

Country rating: Light green

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/Saint%20Vincent%20and%20the%20Grenadines\\_NDC.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/Saint%20Vincent%20and%20the%20Grenadines_NDC.pdf)

Country category: Vulnerable country

Rationale for inclusion: Countries most economically dependent on fisheries; Countries most dependent on fish for jobs

Commitment types: Monitoring and data collection capacity, sustainable or climate-ready fisheries management

Notes: St.Vincent and the Grenadines' NDC commits to policy initiatives for fisheries development. It also describes the country's Pilot Programme for Climate Resilience, which includes monitoring and data collection measures to facilitate sustainable marine resources management and build capacity among stakeholders. The language used to describe these measures is vague or unspecific. The country calls for enhanced international financing to meet its goals.

## **SAMOA**

Country rating: Yellow

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Samoa%27s%20Second%20NDC%20for%20UNFCCC%20Submission.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Coastal zone management, blue carbon or blue economy

Notes: Samoa's NDC acknowledges the country's vulnerabilities to climate change in its fishery sector, describing its economic and nutritional reliance on fish. However, its only mitigation or adaptation target relating to fisheries is expanding its mangrove forests to protect coastal areas and communities against coastal flooding, coastal erosion, and storm surges. This measure is also intended to provide habitat for fish.

## **SÃO TOMÉ AND PRÍNCIPE**

Country rating: Yellow

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/Updated\\_NDC\\_STP\\_2021\\_EN\\_.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/Updated_NDC_STP_2021_EN_.pdf)

Country category: Vulnerable country

Rationale for inclusion: Countries that are highly dependent on fish for food or nutrients; Countries whose fisheries are most vulnerable to climate impacts; Countries most dependent on fish for jobs

Commitment types: Income diversification and capacity building

Notes: São Tomé and Príncipe's NDC recognizes the risks climate change poses to its fisheries and includes adaptation targets intended to improve the fishery sector's resilience to climate change. For instance, it calls for the introduction of sustainable resources for fishers and strengthening the resilience and adaptive capacity of coastal communities. However, it does not describe sustainable fishery management or protection. In addition, São Tomé and Príncipe's NDC includes commitments related to fishing infrastructure intended to improve working conditions for fishers by making it safer and easier for them to take longer journeys and bring in more fish. While such measures could indeed boost fishers' livelihoods, they could also increase fishing, potentially to unsustainable levels, particularly if not paired with a strong management regime—a risk not recognized in the NDC.

## **SIERRA LEONE**

Country rating: Light green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/210804%202125%20SL%20NDC%20%281%29.pdf>

Country category: Vulnerable country

Rationale for inclusion: Countries that are highly dependent on fish for food or nutrients; Countries whose fisheries are most vulnerable to climate impacts; Countries whose fisheries are most sensitive to climate change

Commitment types: Sustainable or climate-ready fisheries management, blue carbon or blue economy

Notes: Sierra Leone is vulnerable and reliant on its fisheries. Its NDC commits to the sustainable management of coastal and fisheries resources through legislative reforms and support for local communities. This is to be done through the promotion of nondestructive fishing and government policies. It also outlines blue economy measures to develop a blue carbon initiative conserving mangrove resources. These measures are largely conditional on international financial support.

### **SOLOMON ISLANDS**

Country rating: Yellow

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20Report%202021%20Final%20Solomon%20Islands%20%281%29.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: None

Notes: The Solomon Islands' NDC recognizes its fishery sector's vulnerability to climate change impacts. It specifically describes its economic reliance and its coastal vulnerabilities. However, it does not describe any mitigation or adaptation targets specific to fisheries or marine resources.

### **SOMALIA**

Country rating: Green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Final%20Updated%20NDC%20for%20Somalia%202021.pdf>

Country category: Vulnerable country

Rationale for inclusion: Countries that are highly dependent on fish for food or nutrients; Countries that have the least capacity to adapt to climate impacts on their fisheries

Commitment types: Sustainable or climate-smart fisheries management, monitoring and data collection, blue carbon or blue economy, income diversification and capacity building

Notes: Somalia's NDC describes several targets falling under the coastal, marine environment, and fisheries category. These include the following: climate-smart fisheries management for resilience and adaptive capacity, monitoring and early warning systems, mangrove restoration, income diversification for local communities, and capacity building for fishers. Somalia asks for \$3 billion in investments to meet these goals.

## **SRI LANKA**

Country rating: Green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Amendmend%20to%20the%20Updated%20Nationally%20Determined%20Contributions%20of%20Sri%20Lanka.pdf>

Country category: Vulnerable country

Rationale for inclusion: Countries that are highly dependent on fish for food or nutrients; Countries whose fisheries are most vulnerable to climate impacts; Countries whose fisheries are most sensitive to climate change

Commitment types: Sustainable or climate-ready fisheries management, monitoring and data collection, income diversification and capacity building

Notes: Sri Lanka's NDC commits to the adoption of ecosystem-based approaches to fisheries management for enhanced food security and resilience. It further commits to expanding aquaculture and culture-based fisheries, including breeding species for aquaculture to withstand climatic changes. This includes early warning systems for climate risk management. It also commits to livelihood diversification and research on impacts on fisheries due to climate change. These targets are conditional on international technical and financial support.

## **TOGO**

Country rating: Yellow

NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/CDN%20Revis%C3%A9es\\_Togo\\_Document%20int%C3%A9rimaire\\_rv\\_11%2010%2021.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/CDN%20Revis%C3%A9es_Togo_Document%20int%C3%A9rimaire_rv_11%2010%2021.pdf)

Country category: Vulnerable country

Rationale for inclusion: Countries that are highly dependent on fish for food or nutrients; Countries whose fisheries are most vulnerable to climate impacts; Countries whose fisheries are most sensitive to climate change

Commitment types: None

Notes: Togo is categorized as vulnerable and reliant. Its NDC recognizes its vulnerability to climate change, specifically for its coastal zones. However, it does not include targets for fisheries or marine resources.

## **TONGA**

Country rating: Light green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/Tonga%27s%20Second%20NDC.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Marine protected areas or other effective area-based conservation measures

Notes: Tonga's fishery measures focus on maintaining existing stock of fish and other marine species. Its mechanism for doing so is expansion of marine protected areas and specially protected areas to 30% of its EEZ. However, it describes no other targets for fisheries.

## **VANUATU**

Country rating: Green

NDC: <https://unfccc.int/sites/default/files/NDC/2022-08/Vanuatu%20NDC%20Revised%20and%20Enhanced.pdf>

Country category: Vulnerable country

Rationale for inclusion: Fisheries@Risk Index

Commitment types: Sustainable or climate-ready fisheries management, monitoring and data collection, income diversification and capacity building

Notes: Vanuatu's NDC commits to community-based fisheries management and adaptation, including preserving traditional resource management and fishing practices, with the goal of creating 40 coastal management plans through collaboration with communities. This is paired with increased access to adaptation technology and knowledge in sustainable fishery management. Vanuatu also commits to monitor and evaluate the state of coastal fisheries. It also commits to subsidies for small-scale fisheries, or other small-grant options to build resilience from climate loss and damage. These targets are conditional on international finance.



KEY COASTAL COUNTRIES' INCLUSION OF  
FISHERIES IN THEIR NATIONALLY  
DETERMINED CONTRIBUTIONS (NDCS)

September 2023