

Illegal, Unreported, and Unregulated (IUU) Fishing: Frequently Asked Questions

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Over the past two decades, successive U.S. Administrations and Congresses have recognized that illegal, unreported, and unregulated (IUU) fishing threatens national, regional, and global security and have acted to combat such fishing activities. IUU fishing generally refers to fishing activities—occurring both in coastal nation jurisdictional waters and in international waters (i.e., the high seas)—that violate national laws or international fisheries conservation and management measures. Some IUU fishing vessels also may engage in other transnational crimes, such as human trafficking and/or labor abuses, as well as the smuggling of drugs, arms, and wildlife. IUU fishing may have several co-occurring consequences that range from harming legitimate (i.e., law-abiding) commercial fishing to undermining scientifically informed fisheries management. IUU fishing also can threaten local and regional food and economic security.

SUMMARY

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Congress has passed several laws directly or indirectly addressing IUU fishing within U.S. waters and/or on the high seas. Some of these laws focus on addressing the impacts of marine biodiversity loss associated with IUU fishing (e.g., High Seas Driftnet Fishing Moratorium Protection Act; Title VI of P.L. 104-43, and the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006; Title IV, §§401-403, of P.L. 109-479). Other U.S. laws address the law enforcement aspects of IUU fishing, such as the Maritime Security and Fisheries Enforcement Act (commonly known as the Maritime SAFE Act; Division C, Title XXXV, Subtitle C, of P.L. 116-92). The Maritime SAFE Act provided a whole-ofgovernment approach to address IUU fishing globally and established the Interagency Working Group on IUU Fishing. In addition, Congress directed the Secretary of Commerce, through the Consolidated Appropriations Act, 2018 (P.L. 115-141), to implement the U.S. Seafood Import Monitoring Program (SIMP) to prevent imported IUU fish and fish products from entering U.S. commerce.

The Food and Agriculture Organization of the United Nations (FAO) provides an international framework to address IUU fishing globally and implements several international fisheries legal instruments. The United States is a party to numerous FAO and other international agreements aimed at curbing or preventing IUU fishing, including the 1995 UN Fish Stocks Agreement, the Port State Measures Agreement, the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean, and the World Trade Organization Agreement on Fisheries Subsidies. The United States also is a member of several *regional fisheries management organizations* (RFMOs), which are international fishery management bodies established to conserve and manage transboundary fish stocks (i.e., fish that move across maritime zones) and fisheries on the high seas. In 2019, under the Maritime SAFE Act, Congress directed the Secretary of State, in consultation with the Secretary of Commerce, to coordinate with RFMOs to enhance regional responses to IUU fishing.

Because most IUU activities occur outside of U.S. jurisdiction, the U.S. government has taken several actions—through international agreements, organizations, and trade—to influence the behavior of foreign fishing fleets. Several federal agencies, including the Department of Defense, the Department of State, the National Oceanic and Atmospheric Administration, and the U.S. Coast Guard, participate in various efforts to combat IUU fishing on the high seas and in the exclusive economic zones (i.e., the waters 200 nautical miles seaward from the shoreline under the jurisdiction of coastal nations) of partner nations. Such efforts include establishing strategic partnerships, improving enforcement tools, identifying and sharing information about vessels participating in IUU fishing, and assisting partner nations in developing and maintaining their own capacities to counter IUU fishing, among others.

To address IUU fishing, Congress may consider several policy options. For example, Congress may consider including other illicit activities that often occur in the seafood sector (e.g., human trafficking, forced labor) in the U.S. definition of IUU fishing. As another example, Congress may consider directing certain federal agencies to enhance transparency and traceability across the U.S. seafood supply chain, as well as to expand SIMP to include all species imported by the United States, to help keep seafood derived from IUU fishing out of the U.S marketplace. Congress also may consider whether more resources and greater diplomatic support could help in the coordination of fishery management, including in regions currently without RFMOs. In addition, Congress may examine whether sufficient support and resources have been dedicated to enforcement efforts to counter IUU fishing activities that may include capacity-building assistance to coastal nations and joint efforts, such as shiprider agreements, among other potential considerations.

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Fisheries resources are a major component of the U.S. economy. In 2022, the United States imported 17% of the world import value of aquatic animal products (\$32 billion), was the largest individual importing country, and was the fifth-largest wild seafood producer, according to a 2024 report by the Food and Agriculture Organization of the United Nations (FAO).¹ The United States has shown a strong interest in the conservation and sustainable management of fisheries resources, both within areas of national jurisdiction and on the high seas (international waters, which cover approximately 45% of the planet).² U.S. and international efforts to manage fisheries are weakened by illegal, unreported, and unregulated (IUU) fishing.³

IUU fishing is an ongoing, multifaceted global issue that occurs both within areas of national jurisdiction and on the high seas.⁴ Under the United Nations Convention on the Law of the Sea (UNCLOS), coastal nations determine allowable catches and promote optimal resource use within their exclusive economic zones (EEZs), waters 200 nautical miles seaward from their shorelines.⁵ However, many living resources move between waters under national jurisdiction—internal waters (e.g., the Chesapeake Bay), the territorial sea (12 nautical miles seaward from a coastal nation's shoreline), the EEZ—and the high seas. For example, *straddling fish stocks* can be found both within a nation's EEZ and in the adjacent high seas, and *highly migratory fish stocks* regularly travel long distances through high seas areas and areas under national jurisdiction (**Figure 1**). Activities associated with IUU fishing affect the ocean ecosystem and the sustainable management of living marine resources.⁶

The vast majority (95%) of global marine fish catch occurs within EEZs.⁷ Coastal nations with limited maritime patrol and enforcement capabilities are particularly susceptible to IUU fishing occurring within their EEZs. National fishers, as well as fishers from neighboring coastal nations, may engage in IUU fishing within EEZs. Other fishers may travel great distances across the ocean, crossing jurisdictional boundaries to engage in IUU fishing in another coastal nation's EEZ. Some fishers participate in IUU fishing activities on the high seas because high seas areas often have limited enforcement and *patchy regulation* (i.e., some areas of the high seas do not have fisheries management guidelines, regulations, or associated enforcement).

¹ Food and Agriculture Organization of the United Nations (FAO), *The State of World Fisheries and Aquaculture: Blue Transformation in Action*, 2024, pp. 30, 90. Hereinafter FAO, *State of World Fisheries and Aquaculture*, 2024.

² U.S. Department of State, "Illegal, Unreported, and Unregulated Fishing," https://www.state.gov/key-topics-office-ofmarine-conservation/illegal-unreported-and-unregulated-fishing/. Hereinafter U.S. Department of State, "Illegal, Unreported, and Unregulated Fishing."

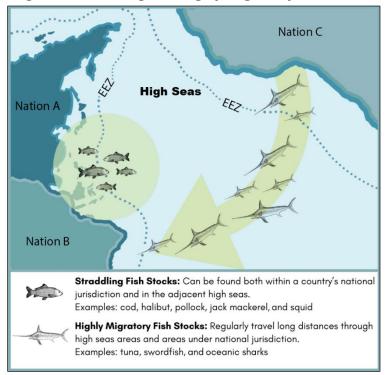
³ FAO, "Illegal, Unreported, Unregulated (IUU) Fishing," https://www.fao.org/iuu-fishing/en/.

⁴ Given the multifaceted nature of illegal, unreported, and unregulated (IUU) fishing, several CRS experts cover aspects of the topic. For information about the experts, see CRS Report R47859, *Illegal, Unreported, and Unregulated (IUU) Fishing: CRS Experts*, coordinated by Caitlin Keating-Bitonti.

⁵ Article 57 of the United Nations Convention on the Law of the Sea (UNCLOS) defines the breadth of the exclusive economic zone (EEZ). According to UNCLOS, within its EEZ, a coastal nation has the right to explore, exploit, conserve, and manage living and nonliving natural resources of the seabed and subsoil and the above-water column. The United States has not ratified UNCLOS but generally abides by certain provisions of the convention's terms, as dictated by Presidential Proclamation 5030. See "Proclamation 5030: Exclusive Economic Zone of the United States of America," 48 *Federal Register* 10605 (March 10, 1983).

⁶ National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), *Report to Congress: Improving International Fisheries Management*, August 2023, p. 10; and NOAA, NMFS, *Report to Congress. Report on the Seafood Import Monitoring Program—FY2023*, 2024, pp. 1-19 (hereinafter NOAA, NMFS, *Report on the Seafood Import Monitoring Program—FY2023*).

⁷ Liam Campling et al., "A Geopolitical-Economy of Distant Water Fisheries Access Arrangements" *npj Ocean Sustainability*, vol. 3, no. 26 (2024), p. 1. Hereinafter Campling et al., "Geopolitical-Economy of Distant Water Fisheries."



This report addresses 14 frequently asked questions related to IUU fishing.

Figure 1. Straddling and Highly Migratory Fish Stocks

Source: Congressional Research Service, modified from United Nations, Division for Ocean Affairs and the Law of the Sea, "UNFSA Overview: The United Nations Fish Stocks Agreement," https://www.un.org/oceancapacity/UNFSA.

Notes: EEZ = exclusive economic zone. The EEZ separates waters under national jurisdiction (the first 200 nautical miles seaward from a coastal nation's shoreline) and the high seas (international waters).

What Is IUU Fishing?

IUU fishing generally refers to fishing activities that violate national laws or international fisheries conservation and management measures. Congress directed the Secretary of Commerce to publish a definition of the term *illegal, unreported, or unregulated fishing* as part of IUU-related provisions in the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (Title IV, §§401-403, of P.L. 109-479).⁸ The act also provided guidance that the definition include

(A) fishing activities that violate conservation and management measures required under an international fishery management agreement to which the United States is a party, including catch limits or quotas, capacity restrictions, bycatch reduction requirements, and shark conservation measures;

(B) overfishing of fish stocks shared by the United States, for which there are no applicable international conservation or management measures or in areas with no applicable

⁸ Codified at 16 U.S.C. §1826j(e)(2). The act amended provisions included in the High Seas Driftnet Fishing Moratorium Protection Act (Title VI of P.L. 104-43), among other changes.

international fishery management organization or agreement, that has adverse impacts on such stocks; and

(C) fishing activity that has an adverse impact on seamounts, hydrothermal vents, and cold water corals located beyond national jurisdiction, for which there are no applicable conservation or management measures or in areas with no applicable international fishery management organization or agreement.⁹

In 2011, the National Oceanic and Atmospheric Administration's (NOAA's) National Marine Fisheries Service (NMFS) defined the term *illegal, unreported, or unregulated fishing* in a final rule.¹⁰ Since then, NMFS has made changes to the definition.¹¹ The current definition appears in 50 C.F.R. §300.201 as follows.

Illegal, unreported, or unregulated (IUU) fishing means:

(1) In the case of parties to an international fishery management agreement to which the United States is a party, fishing activities that violate conservation and management measures required under an international fishery management agreement to which the United States is a party, including but not limited to catch limits or quotas, capacity restrictions, bycatch reduction requirements, shark conservation measures, and data reporting;

(2) In the case of non-parties to an international fishery management agreement to which the United States is a party, fishing activities that would undermine the conservation of the resources managed under that agreement;

(3) Overfishing of fish stocks shared by the United States, for which there are no applicable international conservation or management measures, or in areas with no applicable international fishery management organization or agreement, that has adverse impacts on such stocks; or,

(4) Fishing activity that has a significant adverse impact on seamounts, hydrothermal vents, cold water corals and other vulnerable marine ecosystems located beyond any national jurisdiction, for which there are no applicable conservation or management measures or in areas with no applicable international fishery management organization or agreement.

(5) Fishing activities by foreign flagged vessels in U.S. waters without authorization of the United States.

The 2001 FAO International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (IPOA-IUU) provides a definition for IUU fishing,¹² as well as a "toolbox" of voluntary measures that countries and fishers can take to address IUU fishing.¹³ The

^{9 16} U.S.C. §1826j(e)(3).

¹⁰ NOAA, NMFS, "High Seas Driftnet Fishing Moratorium Protection Act; Identification and Certification Procedures to Address Illegal, Unreported, and Unregulated Fishing Activities and Bycatch of Protected Living Marine Resources," 76 *Federal Register* 2024, January 12, 2011.

¹¹ NOAA, NMFS, "High Seas Driftnet Fishing Moratorium Protection Act; Identification and Certification Procedures to Address Shark Conservation," 78 *Federal Register* 3338-3346, January 16, 2013.

¹² The International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (IPOA-IUU) is a voluntary instrument under FAO's Code of Conduct for Responsible Fisheries. The document contains separate definitions for *illegal fishing*, *unreported fishing*, and *unregulated fishing*. FAO, *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing*, Rome, Italy, 2001, pp. 2-3.

¹³ The National Plan of Action of the United States of America to Prevent, Deter, and Eliminate Illegal, Unregulated, and Unreported Fishing "is organized along the same lines as the [IPOA-IUU]." U.S. Department of State, *National Plan of Action of the United States of America to Prevent, Deter, and Eliminate Illegal, Unregulated, and Unreported Fishing*, p. 2, https://2001-2009.state.gov/documents/organization/43101.pdf.

Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing uses the same IUU fishing definition as the IPOA-IUU.¹⁴ The U.S. definition for IUU fishing is consistent with the terminology used in the IPOA-IUU definition.

Neither the United States' definition nor the international definition for IUU fishing includes human trafficking or other illicit activities that are commonly associated with IUU fishing. Some stakeholders contend the definition for IUU fishing should be broadened to include illicit fisheries-related crimes and crimes committed in the context of the fisheries sector, such as human trafficking and forced labor.¹⁵ In a March 2024 letter to President Biden, some Members of Congress noted that the NOAA definition does not encompass human and labor rights abuses and stated that updating the definition would align with international standards.¹⁶

What Drives IUU Fishing?

Several factors drive fishers to participate in IUU fishing activities, such as the profitability of the seafood trade, limited enforcement and patchy regulation of the high seas, government fisheries subsidies, and the ability to use flags of convenience. *Distant water fishing (DWF) fleets* are operated by firms fishing in areas outside the jurisdiction where ownership (or registration) is held and beyond the area(s) adjacent to the natural shoreline of that jurisdiction.¹⁷ The top five DWF fleets—China (38%), Taiwan (22%), Japan (10%), South Korea (10%), and Spain (10%)—account for 90% of all DWF and primarily operate in the Indo-Pacific region and off the coasts of East and West Africa and South America.¹⁸

Profitability. Wild-caught and aquaculture seafood products represent some of the most internationally traded food commodities. In 2022, approximately 38% of wild-caught and aquaculture products entered into international trade, generating hundreds of billions of dollars in revenue.¹⁹ To take advantage of the profitable global fisheries market, fishers may engage in IUU fishing to avoid the operational costs associated with sustainable fisheries management.²⁰ Experts contend that IUU fishing harms legitimate (i.e., law-abiding) commercial fishers and disrupts efforts toward sustainable fishing practices, while resulting in global economic losses of an estimated tens of billions of dollars each year for legitimate seafood producers.²¹

11_moc_letter_to_president_biden_re_iuu_fishing.pdf.

¹⁴ FAO, Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated *Fishing*, Rome, Italy, June 20, 2012. Hereinafter FAO, *Port State Measures Agreement*. For more information, see the "Port State Measures Agreement" section of this report.

¹⁵ See, for example, Julio Jorge Urbina, "Towards an International Legal Definition of the Notion of Fisheries Crime," *Marine Policy*, vol. 144 (October 2022), pp. 1-6, see p. 2; Vasco Becker-Weinberg, "Time to Get Serious About Combating Forced Labour and Human Trafficking in Fisheries," *International Journal of Marine and Coastal Law*, vol. 36 (2021), pp. 88-113; and Mary Mackay et al., "The Intersection Between Illegal Fishing, Crimes at Sea, and Social Well-Being," *Frontiers in Marine Science*, vol. 7 (2020), 589000, pp. 1-9.

¹⁶ Letter from Congress of the United States to the Honorable Joseph R. Biden Jr., President of the United States, March 11, 2024, p. 3, https://democrats-naturalresources.house.gov/imo/media/doc/2024-03-

¹⁷ Campling et al., "Geopolitical-Economy of Distant Water Fisheries," pp. 2-3.

¹⁸ Stimson Center, *Shining a Light: The Need for Transparency Across Distant Water Fishing*, 2019, p. 2, https://www.stimson.org/wp-content/files/file-attachments/Stimson%20Distant%20Water%20Fishing%20Report.pdf. Hereinafter Stimson Center, *Shining a Light*.

¹⁹ FAO, State of World Fisheries and Aquaculture, 2024, pp. 9, 82-83.

²⁰ U.S. Department of State, "Illegal, Unreported, and Unregulated Fishing."

²¹ For example, see U.S. Department of State, "Illegal, Unreported, and Unregulated Fishing"; and National Intelligence Council (NIC), *Global Implications of Illegal, Unreported, and Unregulated (IUU) Fishing*, NIC WP 2016-02, September 19, 2016, p. 5 (hereinafter, NIC, *Global Implications of IUU Fishing*).

Limited Enforcement and Patchy Regulations on the High Seas. The high seas cover approximately 45% of the planet. The large area, coupled with limited enforcement and patchy regulation, enables some fishers to engage in IUU fishing activities on the high seas.²² Under the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (commonly known as the 1995 UN Fish Stocks Agreement), countries party to the agreement are obligated to regulate "the activities of vessels flying their flag which fish for [straddling fish stocks and highly migratory fish stocks] on the high seas."²³

Fisheries Subsidies.²⁴ The World Trade Organization (WTO) defines *subsidies* as a financial contribution made by a government or any public body that confers a benefit. Economists generally consider subsidies to be trade distorting. Since the 1990s, multilateral organizations, such as FAO, and other stakeholders have raised concerns about how fisheries subsidies contribute to overcapacity and overfishing, and cause economic and environmental impacts.²⁵ Subsidies provide capital to fisheries to expand fishing fleets and increase capacity to fish. Decreasing fisheries subsidies could make some IUU fishing operations unprofitable, potentially decreasing fishing effort and improving conservation and management efforts.²⁶

Flag of Convenience. Vessels must be registered with a single country even if they operate on the high seas. A *flag of convenience* vessel is one that flies the flag of a country other than the country of vessel ownership.²⁷ Registering for a flag of convenience can be attractive to some vessel owners, especially if the country of the flag of convenience has low registration fees, low or no taxes, relaxed labor laws, and limited high seas enforcement capabilities in comparison to the nation of ownership.²⁸ Many operators involved in IUU fishing activities register their vessel or fleet in a nation that lacks the capacity and resources for effective monitoring, control, and surveillance.²⁹ Vessel operators also may seek to register in a country with "limited interest or ability to enforce fishing or labor-related laws."³⁰ Flag-of-convenience vessels can be challenging to track because some frequently change their name, ownership, and country of registration.

²² Stimson Center, *Shining a Light*, p. 2. For more information, see the "How Can Regional Fisheries Management Organizations Deter IUU Fishing?" section of this report.

²³ Article 7 of the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, https://www.un.org/depts/los/convention_agreements/texts/fish_stocks_agreement/ CONF164_37.htm. Hereinafter 1995 UN Fish Stocks Agreement. For more information, see the "1995 UN Fish Stocks Agreement" section of this report.

²⁴ Liana Wong, Analyst in International Trade and Finance, contributed to this section on fisheries subsidies.

²⁵ FAO, *State of World Fisheries and Aquaculture*, 2024, p. xxv; Ussif Rashid Sumaila et al., "Updated Estimates and Analysis of Global Fisheries Subsidies," *Marine Policy*, vol. 109 (November 2019), pp. 1-11; and World Bank, *The Sunken Billions Revisited: Progress and Challenges in Global Marine Fisheries*, 2017, pp. 1-4.

²⁶ For more information see the "World Trade Organization Agreement on Fisheries Subsidies" section of this report. NOAA defines *fishing effort* as "the amount of fishing gear of a specific type used on the fishing grounds over a given unit of time (e.g., hours trawled per day, number of hooks set per day, number of hauls of a beach seine per day). When two or more kinds of gear are used, the respective efforts must be adjusted to some standard type before being added." U.S. Department of Commerce, NOAA, *NOAA Fisheries Glossary*, NOAA Technical Memorandum NMFS/F-SPO-69, June 2006, p. 17, https://repository.library.noaa.gov/view/noaa/12856.

²⁷ For example, see International Transport Workers' Federation, "Flags of Convenience," https://www.itfglobal.org/ en/sector/seafarers/flags-convenience.

²⁸ Ibid.

²⁹ FAO, "Illegal, Unreported, Unregulated (IUU) Fishing," https://www.fao.org/iuu-fishing/en/.

³⁰ U.S. Department of Commerce and U.S. Department of State, *Human Trafficking in the Seafood Supply Chain:* (continued...)

What Are Examples of IUU Fishing Activities?

IUU fishing generally refers to fishing activities that violate national laws or international fisheries conservation and management measures. For example, licensed vessels may operate in violation of national laws within coastal nations' EEZs, misreport their harvests, or not comply with *regional fisheries management organization* (RFMO) measures in high seas areas, among other violations (**Figure 2**).³¹ As another example, unlicensed vessels may operate illegally within EEZs or participate in unregulated fishing (i.e., fishing activities in areas where there are no applicable conservation or management areas, such as RFMOs).³²

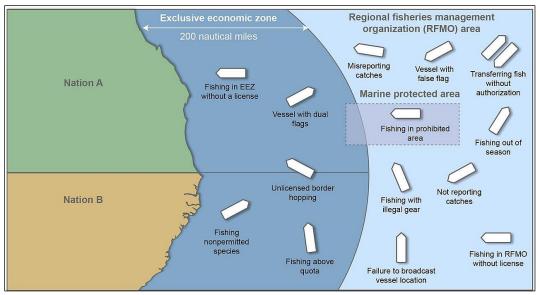


Figure 2. Examples of Illegal, Unreported, and Unregulated Fishing Activities

Source: U.S. Government Accountability Office, Combatting Illegal Fishing: Better Information Sharing Could Enhance U.S. Efforts to Target Seafood Imports for Investigation, GAO-23-105643, May 2023, see, p. 6.

Notes: EEZ = exclusive economic zone. The green and brown areas represent two coastal nations, and the dark blue area represents the two nations' adjacent EEZs (i.e., 200-nautical-mile area under their respective national jurisdictions). The light blue area represents an area of the high seas (international waters) under the management of a *regional fisheries management organization* (RFMO). An RFMO is an international fishery management body established to conserve and manage transboundary fish stocks (i.e., fish that move across maritime zones). RFMOs also manage fishing activities occurring within a specific geographic region of the high seas. The area delineated by the hashed rectangle represents a marine protected area that spans a portion of nation A's EEZ and an adjacent area of the high seas. Some marine protected areas prohibit certain activities, such as commercial fishing.

Section 3563 of the National Defense Authorization Act of Fiscal Year 2020 (P.L. 116-92), Report to Congress, 2020, https://media.fisheries.noaa.gov/2020-12/DOSNOAAReport_HumanTrafficking.pdf. Hereinafter Departments of Commerce and State, Human Trafficking in the Seafood Supply Chain.

³¹ A *regional fisheries management organization* (RFMO) is an international fishery management body established to conserve and manage fish stocks that move across maritime zones. For more information, see the "How Can Regional Fisheries Management Organizations Deter IUU Fishing?" section of this report.

³² See NIC, Global Implications of IUU Fishing, p. 5.

What Are the Consequences of IUU Fishing?

IUU fishing may have several co-occurring consequences that range from harming legitimate commercial fishers to exacerbating overfishing, inhibiting fisheries research, and undermining fisheries management. IUU fishing also can threaten food security. The threats that IUU fishing activities pose to local and national economies may increase tensions within and between countries and may contribute to broader geopolitical conflicts. In addition, IUU fishing may impact the seafood industry.³³

Harm Legitimate Commercial Fishers. IUU fishing adversely impacts legitimate commercial fishers.³⁴ Vessels conducting IUU fishing avoid operational costs by not complying with regulatory requirements such as gear restrictions, closed areas, or harvest limits. The decline of common or shared stocks because of illegal fishers may lead to lower harvests for legitimate fishers. Those fishing legally may be harmed by lower catch rates and higher associated fishing costs.

Exacerbate Overfishing and Undermine Fisheries Management. IUU fishing activities can contribute to overfishing, deplete protected living marine resources, and diminish efforts to assess and manage marine populations.³⁵ Fishers participating in IUU fishing activities may underreport or not report their catch, thereby inhibiting efforts by scientists and fisheries managers to assess fish population dynamics and set catch limits.

Overfishing of a fish stock in one area can affect the stock condition of that species in other parts of its range.³⁶ IUU fishing presents wide-ranging management and conservation challenges at both national and international levels. International cooperation is necessary to manage many fish stocks, because they move among different national zones of jurisdiction and the high seas (**Figure 1**).

Threaten Food Security.³⁷ IUU fishing's combined effects of overfishing and disruption of traditional seafood markets may contribute to food scarcity. IUU fishing presents a threat to food security and socioeconomic stability in many countries, especially in developing nations that depend on fisheries for food and export income.³⁸ According to FAO, aquaculture and fisheries combined accounted for approximately 17% of total animal-source protein consumed globally in 2017, with these values typically greater in developing nations of coastal Africa, South Asia, Oceania, and parts of the Caribbean.³⁹ For some countries in western Africa and South Asia, fish

³³ For more information, see the "How Does IUU Fishing Impact the Seafood Industry?" section of this report.

³⁴ For example, see U.S. Department of State, "Illegal, Unreported, and Unregulated Fishing"; and NIC, *Global Implications of IUU Fishing*, p. 5.

³⁵ For example, see FAO, State of World Fisheries and Aquaculture, 2024, p. 146.

³⁶ For example, see Ines Haberle et al., "Fish Condition as an Indicator of Stock Status: Insights from Condition Index in a Food-Limiting Environment," *Fish and Fisheries*, vol. 24, no. 4 (2023), pp. 567-581; and Helen F. Yan et al., "Overfishing and Habitat Loss Drive Range Contraction of Iconic Marine Fishes to Near Extinction," *Science Advances*, vol. 7, no. 7 (2021), eabb6026, pp. 1-10.

³⁷ FAO defines *food security* at the individual, household, national, regional, and global levels as existing "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life." FAO, *Rome Declaration on World Food Security and World Food Summit Plan of Action*, paper presented at the Word Food Summit, Rome, Italy, 1996.

³⁸ NOAA, NMFS, "Understanding Illegal, Unreported, and Unregulated Fishing," https://www.fisheries.noaa.gov/ insight/understanding-illegal-unreported-and-unregulated-fishing. Hereinafter NOAA, NMFS, "Understanding Illegal, Unreported, and Unregulated Fishing."

³⁹ FAO, The State of World Fisheries and Aquaculture 2020: Sustainability in Action, 2020, p. 67.

contributes 50% or more of their residents' total animal protein intake.⁴⁰ In several of these regions, foreign vessels, including DWF vessels, fish illegally and contribute to overexploitation.⁴¹ As demand for marine protein sources is anticipated to increase,⁴² experts note that food derived from the global ocean is increasingly important for food security and that IUU fishing undermines sustainable food production.⁴³

How Does IUU Fishing Impact the Seafood Industry?

IUU fishing causes direct economic impacts to the global seafood industry (including the industries of particular nations) and to U.S. domestic seafood in general. Some Members of Congress have asked specific agencies to provide information about how the agency is responding to the threat that IUU fishing poses to domestic seafood production,⁴⁴ in reference to a U.S International Trade Commission report that found nearly 11% of all U.S. seafood imports, equal to \$2.4 billion annually, are derived from IUU fishing.⁴⁵ Multiple studies have evaluated the effects IUU fishing can have on the seafood industry.⁴⁶ Some documented impacts are described below.

Economic Loss. Researchers estimate that losses from IUU fishing are between \$10 billion and \$24 billion annually, representing 11-26 million tons of fish each year.⁴⁷ Furthermore, researchers estimated that IUU catches represented 20%-32% of the wild-caught seafood imported into the United States by weight in 2011, with that value ranging from 11% to 13% in more recent

⁴⁰ Ibid.

⁴¹ See, for example, Yimin Ye et al., "Increasing the Contribution of Africa's Fisheries to Food Security Through Improved Management," *Food Security*, vol. 16, no. 2 (2024), pp. 455-470; Nudrin Kasim and Aris Widagdo, "Combatting Illegal, Unreported, and Unregulated (IUU) Fishing in Indonesia," *Aquaculture, Aquarium, Conservation and Legislation*, vol. 12, no. 6 (2019), pp. 2243-2251; and Matti Kohonen and Alfonso Daniels, "Ocean Economy at Risk: Rise of Distant Water Fleets and Financial Secrecy," *Development*, vol. 66 (2023), pp. 76-83.

⁴² Det Norske Veritas (DNV), *Seafood Forecast: Ocean's Future to 2050*, Høvik, Norway, 2024, pp. 1-69, https://www.dnv.com/Publications/seafood-forecast-250243/.

⁴³ Jade Lindley, "Food Security Amidst Crime: Harm of Illegal Fishing and Fish Fraud on Sustainable Oceans," in *The Palgrave Handbook of Climate Resilient Societies*, ed. Robert C. Brears (Cham: Springer Nature Switzerland, 2022), pp. 733-751.

⁴⁴ In September 2024, some Members of Congress sent letters to the Council on Environmental Quality, NOAA, U.S. Department of State, U.S. Department of Labor, U.S. Department of Agriculture, U.S. Customs and Border Protection, U.S. Food and Drug Administration, and Federal Trade Commission. U.S. Congress, Natural Resources Committee Democrats, "Grijalva Leads Sweeping Bipartisan Request to Eight Federal Agencies to Examine Efforts to Combat IUU Fishing," September 4, 2024, https://democrats-naturalresources.house.gov/media/press-releases/grijalva-leads-sweeping-bipartisan-request-to-eight-federal-agencies-to-examine-efforts-to-combat-iuu-fishing.

⁴⁵ U.S. International Trade Commission (USITC), *Seafood Obtained via Illegal, Unreported, and Unregulated Fishing:* U.S. Imports and Economic Impact on U.S. Commercial Fisheries, Publication Number: 5168. Investigation Number 332-575, Washington, DC, February 2021, pp. 1-464. Hereinafter USITC, *Seafood Obtained via Illegal, Unreported,* and Unregulated Fishing.

⁴⁶ See, for example, Dana D. Miller and Ussif Rashid Sumaila, "Chapter 4: IUU Fishing and Impact on the Seafood Industry," in *Seafood Authenticity and Traceability*, eds. Amanda M. Naaum and Robert H. Hanner (Cambridge: Elsevier, 2016), pp. 83-95 (hereinafter Miller and Sumaila, "IUU Fishing and Impact"); Garnchanok Wongrak et al., "The Impact of the EU IUU Regulation on the Sustainability of the Thai Fishing Industry," *Sustainability*, vol. 13, no. 12 (2021), 6814, pp. 1-16 (hereinafter Wongrak et al., "Impact of the EU IUU Regulation"); and Don Liddick, "The Dimensions of a Transnational Crime Problem: The Case of IUU Fishing," *Trends in Organized Crime*, vol. 17 (2014), pp. 290-312 (hereinafter Liddick, "Dimensions of a Transnational Crime Problem").

⁴⁷ David J. Agnew, "Estimating the Worldwide Extent of Illegal Fishing," *PLoS One*, vol. 4, no. 2 (2009), e4570, pp. 1-8.

estimates.⁴⁸ Fishers and shore-based businesses—such as processors, dealers, and vendors—may be harmed by the decrease in supplies of fish remaining available for legitimate harvest.

Threats to Economic Security. Experts have noted that IUU fishing can affect the stability and security of fishing activities at sea by impacting the economic value of fisheries resources.⁴⁹ According to the National Intelligence Council, IUU fishing, along with surging worldwide demand for seafood and declining ocean health, poses an existential threat to global fisheries.⁵⁰ Estimates of the global scale of IUU fishing are difficult to quantify in financial terms, but NOAA states that "there is little disagreement that it is in the billions, or even tens of billions, of dollars each year."⁵¹ A 2020 study estimated that gross revenues associated with unreported fish catches worldwide potentially generate \$9 billion to \$17 billion in illicit proceeds annually.⁵² The study further estimated corresponding economic impact losses due to the diversion of fish from the legitimate trade market as costing \$26 billion to \$50 billion annually and potential losses to countries' tax revenues worth approximately \$2 billion to \$4 billion annually.⁵³

Sustainability and Market Value. IUU fishing can affect the sustainability of a fishery, primarily through overfishing. Overfishing can lead to reduced fishing opportunities for legitimate fishers, potential increased fishing costs (e.g., increased fuel costs from longer fishing trips to harvest fishes in deeper waters where fishes may be more abundant, or over a broader area), and lower profits, all of which can affect seafood market value and local economies.⁵⁴ For example, studies have estimated that the large concentration of IUU fishing off West Africa costs the region nearly \$2 billion per year through the reduction of fish stocks and economic losses to the tourism sector, with "hard-hitting" effects to families whose income relies on the fishing industry.⁵⁵ Some experts estimate this area has the highest recorded levels of IUU fishing in the world, with IUU fishing is estimated to cost developing nations between \$2 billion and \$15 billion in annual economic losses.⁵⁷ Because most IUU catches are not brought onshore to the country from whose waters they were taken, losses in port dues, revenue, and to transport and processing sectors can occur.⁵⁸ IUU fishing also may facilitate the inclusion of lower-quality or

 ⁴⁸ Ganapathiraju Pramod et al., "Estimates of Illegal and Unreported Fish in Seafood Imports to the USA," *Marine Policy*, vol. 48 (2014), pp. 102-113; and USITC, *Seafood Obtained via Illegal, Unreported, and Unregulated Fishing*.
 ⁴⁹ See, for example, Richard Barnes and Mercedes Rosello, "Fisheries and Maritime Security: Understanding and Enhancing the Connection," in *Maritime Security and the Law of the Sea: Help or Hindrance?*, eds. Malcolm D. Evans and Sofia Galani (Northampton, MA: Edward Elgar Publishing, 2020), pp. 48-82.

⁵⁰ NIC, Global Implications of IUU Fishing, p. 5.

⁵¹ NOAA, NMFS, "Understanding Illegal, Unreported, and Unregulated Fishing."

⁵² Ussif Rashid Sumaila et al., "Illicit Trade in Marine Fish Catch and Its Effects on Ecosystems and People Worldwide," *Science Advances*, vol. 6, no. 9 (February 2020), pp. 1-7.

⁵³ Ibid.

⁵⁴ Miller and Sumaila, "IUU Fishing and Impact."

⁵⁵ The term "hard hitting" is used to describe these effects in Hunter F. Donovan, "The Role of Corporations in Solving the Illegal, Unregulated, and Unreported (IUU) Fishing Crisis," *Ocean and Coastal Law Journal*, vol. 28, no. 1 (2023), pp. 177-212 (hereinafter Donovan, "Role of Corporations"). Miller and Sumaila, "IUU Fishing and Impact; and Sjarief Widjaja et al., "Illegal, Unreported, and Unregulated Fishing and Associated Drivers," in *The Blue Compendium: From Knowledge to Action for a Sustainable Ocean Economy*, eds. Jane Lubchenco and Peter M. Haugan (Cham: Springer Nature Switzerland, 2023), pp. 553-591.

⁵⁶ E. Drury O'Neill et al., "Socioeconomic Dynamics of the Ghanaian Tuna Industry: A Value-Chain Approach to Understanding Aspects of Global Fisheries," *African Journal of Marine Science*, vol. 40, no. 3 (2018), pp. 303-313; and Alkay Doumbouya et al., "Assessing the Effectiveness of Monitoring Control and Surveillance of Illegal Fishing: The Case of West Africa," *Frontiers in Marine Science*, vol. 4, no. 50 (2017), pp. 1-10.

⁵⁷ Liddick, "Dimensions of a Transnational Crime Problem."

⁵⁸ Ibid.

less valuable products in some seafood markets, which can impact the overall marketability of certain regional fisheries.⁵⁹ For example, overfishing associated with IUU fishing may reduce populations of more lucrative fish species in a given area—typically higher-level consumers in the food chain—and lead to increased fishing effort on other ecologically important species throughout the food chain.⁶⁰ Furthermore, IUU fishing may deplete less lucrative stocks that are critical food sources for human populations and marine wildlife, also affecting the sustainability of those stocks and the ecosystems they inhabit.⁶¹

Industry Reputation and Seafood Trade. IUU fishing can influence the reputations of certain national seafood industries and impact global seafood trade. Seafood industries from particular nations may receive certifications from other nations regarding their compatibility with the certifying nation's IUU fishing and sustainability standards. For example, the United States, through NOAA, identifies nations and entities that engage in IUU fishing and associated fishing activities that negatively affect protected living marine resources, in accordance with the High Seas Driftnet Fishing Moratorium Protection Act (commonly known as the Moratorium Protection Act; Title VI of P.L. 104-43).⁶² NOAA additionally certifies nations if their regulatory programs regarding IUU fishing and protected living marine resources are compatible with those of the United States. The United States may deny port privileges or prohibit certain seafood imports for nations that receive a negative certification.⁶³

Product mislabeling and fraud associated with IUU fishing can pose health risks to consumers through potential exposure to allergens, toxins, or contaminants.⁶⁴ In some cases, seafood products from particular nations may be identified as higher risk for health concerns, or for IUU fishing, and some nations may refuse to import said seafood products.⁶⁵ For example, the European Union can issue import bans on a nation's seafood if that nation's fishery products are associated with IUU fishing.⁶⁶ Negative certifications and seafood import bans can result in significant costs and economic effects to national and multinational seafood industries and markets.⁶⁷

Traceability and Enforcement Costs. IUU fishing may lead to additional costs through national efforts to enhance seafood traceability and law enforcement. For example, increased permitting, registration, and regulatory compliance to combat IUU fishing can impose direct costs on the

⁵⁹ Alan Reilly, "Overview of Food Fraud in the Fisheries Sector," FAO, FAO Fisheries and Aquaculture Circular No. 1165, 2018, pp. 1-21.

⁶⁰ For example, see Timothy E. Essington et al., "Fishing Through Marine Food Webs," *Proceedings of the National Academy of Sciences*, vol. 103, no. 9 (2006), pp. 3171-3175.

⁶¹ Liddick, "Dimensions of a Transnational Crime Problem."

⁶² NOAA, NMFS, "NOAA Engagement with Nations and Entities Under the Moratorium Protection Act," https://www.fisheries.noaa.gov/international/international-affairs/noaa-engagement-nations-and-entities-undermoratorium. Hereinafter NOAA, NMFS, "NOAA Engagement with Nations and Entities Under the Moratorium Protection Act." For more information, see the "Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 and High Seas Driftnet Fishing Moratorium Protection Act" section of this report.

⁶³ Ibid.; 16 U.S.C. §§1826h-1826k.

⁶⁴ Miller and Sumaila, "IUU Fishing and Impact."

⁶⁵ Ibid.

⁶⁶ Dae Eui Kim and Song Soo Lim, "Economic Impacts of the European Union Carding System on Global Fish Trade," *Marine Policy*, vol. 165 (2024), 106208, pp. 1-7 (hereinafter Kim and Lim, "Economic Impacts of the European Union Carding System"); and Wongrak et al., "Impact of the EU IUU Regulation."

⁶⁷ Kim and Lim, "Economic Impacts of the European Union Carding System"; and Juan He, "Unilateral Trade Measures Against Illegal, Unreported, and Unregulated Fishing: Unlocking a Paradigm Change in Trade-Environmental Partnerships?," *Journal of World Trade*, vol. 53, no. 5 (2019), pp. 759-782.

seafood community, including to fishers, seafood importers, and consumers.⁶⁸ Studies suggest that supply chain transparency enhancement programs can result in long-term sustainability benefits but also come with costs that typically are borne by producers in lower-income countries.⁶⁹ The U.S. seafood community estimates it has spent over \$50 million on regulatory and paperwork compliance to address IUU fishing concerns for species covered through the U.S. Seafood Import Monitoring Program and has raised concerns about additional expenses it might incur were the program to expand.⁷⁰ Additionally, U.S. importers found to violate national traceability and labeling requirements for imported seafood—or found to have not reported falsely labeled products—may be subject to penalties.⁷¹ Some note that those in the seafood industry are motivated to voluntarily participate in traceability initiatives and that consumer demand for sustainable products can serve as a traceability motivator and could lead to expanded trade opportunities.⁷² In some cases, stricter multinational policies regarding supply chain transparency may deter the entry of mislabeled seafood into the market and facilitate consumers' access to accurate information.⁷³

Are Transnational Crimes Associated with IUU Fishing?

IUU fishing, as well as some seafood industries, may be associated with other illegal activities, such as human and other forms of trafficking (e.g., arms, drugs, wildlife), labor exploitation, and organized crime.⁷⁴ For example, some experts have reported at least 100 Russian trawlers were operating in "mafia-style gangs" during the mid-2000s and were associated with large-scale illegal and unreported fishing.⁷⁵ Some criminals may leave other illegal industries to engage in IUU fishing due to the perception that IUU fishing may be more lucrative and less dangerous.⁷⁶ Fishers may be vulnerable to recruitment by criminal organizations seeking to use vessels for illegal operations. Some experts infer that IUU fishing may be classified as organized crime based on the description in the UN Convention Against Transnational Organized Crime.⁷⁷ FAO

⁶⁸ Liddick, "Dimensions of a Transnational Crime Problem."

⁶⁹ For example, John Virdin et al., "Combatting Illegal Fishing Through Transparency Initiatives: Lessons Learned from Comparative Analysis of Transparency Initiatives in Seafood, Apparel, Extractive, and Timber Supply Chains," *Marine Policy*, vol. 138 (2022), 104984, pp. 1-11. Hereinafter Virdin et al., "Combatting Illegal Fishing Through Transparency Initiatives."

⁷⁰ For more information, see the "What Is the Seafood Import Monitoring Program?" section of this report. Bhavana Scalia-Bruce, "NOAA Issues Fines for Importer Violating SIMP Regulations," *Seafood Source*, April 28, 2023, https://www.seafoodsource.com/news/supply-trade/noaa-issues-fines-for-importer-violating-simp-regulations.
⁷¹ Ibid.

⁷² Virdin et al., "Combatting Illegal Fishing Through Transparency Initiatives."

⁷³ Ibid.; Michaela Fox et al., "The Seafood Supply Chain from a Fraudulent Perspective," *Food Security*, vol. 10 (2018), pp. 939-963; and Miller and Sumaila, "IUU Fishing and Impact."

⁷⁴ FAO, *State of World Fisheries and Aquaculture*, 2024, p. 222; Gohar A. Petrossian et al., "Organized Crime in the Fisheries Sector," in *The Private Sector and Organized Crime*, eds. Yuliya Zabyelina and Kimberly L. Thachuk (New York: Routledge, 2023), pp. 132-148 (hereinafter Petrossian et al., "Organized Crime in the Fisheries Sector"); and Kaija Metuzals et al., "One Fish, Two Fish, IUU, and No Fish: Unreported Fishing Worldwide," in *Handbook of Marine Fisheries Conservation and Management*, eds. R. Quentin Grafton et al. (Oxford: Oxford University Press, 2009), pp. 166-180 (hereinafter Metuzals et al., "One Fish, Two Fish, Two Fish, Two Fish, IUU, and No Fish).

⁷⁵ Metuzals et al., "One Fish, Two Fish, IUU, and No Fish."

⁷⁶ Liddick, "Dimensions of a Transnational Crime Problem."

⁷⁷ Petrossian et al., "Organized Crime in the Fisheries Sector"; and United Nations Office on Drugs and Crime, *United Nations Convention Against Transnational Organized Crime and the Protocols Thereto*, New York, 2004, pp. 1-82.

and U.S. definitions of IUU fishing are specific to fisheries resource laws, whereas other types of illegal activities are subject to other national laws and international agreements.⁷⁸ In 2021, the Biden Administration directed federal departments and agencies to take actions within their respective authorities to enhance efforts to counter transnational organized crime, including organizations engaged in illegal fishing.⁷⁹

Human Trafficking and Labor Exploitation. According to FAO, "migrant workers are particularly exposed to modern slavery, bondage, forced labour and other abuses, which have been associated with IUU fishing."⁸⁰ Several factors make the fishing sector susceptible to human trafficking.⁸¹ Traffickers often recruit fishers living in impoverished areas or in areas with political instability by making false claims of high wages or immigration assistance.⁸² In a report to Congress, the Departments of Commerce and State identified 29 countries or territories most at risk for human trafficking, including forced labor, in the seafood sector.⁸³ Traffickers charge fishers a recruitment fee to get them employment and then sell the fee obligation to a fishing vessel captain.⁸⁴ Unable to pay off their recruitment fee to the vessel captain, fishers are forced to remain with the vessel or firm, a situation referred to as *debt bondage*.

Fishers on DWF vessels are inherently isolated on the high seas.⁸⁵ The Outlaw Ocean Project, a nonprofit journalism organization, reports that some DWF vessels remain at sea for years, relying on refrigeration vessels to transport fish catch from the vessels back to shore.⁸⁶ Under these isolated conditions, fishers are unable to report abuse or escape.⁸⁷ Furthermore, migrants on fishing vessels may be unable to communicate with operators due to language barriers.⁸⁸

IUU fishing operations may violate basic safety standards and deny crew members' fundamental rights, such as agreed-on terms and conditions of their labor. An investigation by the Outlaw Ocean Project documented several possible abuses on at least 119 fishing vessels since 2013, including debt bondage, wage withholding, excessive working hours, beatings, passport

⁷⁸ Refer to the "What Is IUU Fishing?" section of this report.

⁷⁹ The White House, "Executive Order on Establishing the United States Council on Transnational Organized Crime," December 15, 2021, https://www.whitehouse.gov/briefing-room/presidential-actions/2021/12/15/executive-order-on-establishing-the-united-states-council-on-transnational-organized-crime/.

⁸⁰ Ibid., p. 171.

⁸¹ Departments of Commerce and State, Human Trafficking in the Seafood Supply Chain.

⁸² For example, see Department of Justice, *Report on Human Trafficking in Fishing in International Waters*, Report to Congress, January 2021, pp. 1-51, see. pp. 7-8.

⁸³ The 29 countries and territories identified as most at risk for human trafficking were Bangladesh, Burma, Cambodia, Cameroon, Ecuador, Fiji, Gabon, Ghana, Guinea, Honduras, Indonesia, Ireland, Kenya, Madagascar, Mauritania, North Korea, Pakistan, Papua New Guinea, the People's Republic of China, Philippines, Seychelles, Sierra Leone, South Africa, South Korea, Taiwan, Tanzania, Thailand, Vanuatu, and Vietnam. Departments of Commerce and State, *Human Trafficking in the Seafood Supply Chain.*

⁸⁴ For example, see Ian Urbina, "Lawless Ocean: The Link Between Human Rights Abuses and Overfishing," Outlaw Ocean Project, November 20, 2019, https://www.theoutlawocean.com/reporting/the-link-between-human-rights-abuses-and-overfishing/; and Departments of Commerce and State, *Human Trafficking in the Seafood Supply Chain*.

⁸⁵ Department of Justice, *Report on Human Trafficking in Fishing in International Waters*, Report to Congress, January 2021, p. 5, https://www.justice.gov/crt/page/file/1360366/dl; and Departments of Commerce and State, *Human Trafficking in the Seafood Supply Chain*.

⁸⁶ An Outlaw Ocean Project investigation found that "foreign and Chinese workers on these fishing ships stay at sea for more than three years." See Outlaw Ocean Project, "China: The Superpower of Seafood,"

https://www.theoutlawocean.com/investigations/china-the-superpower-of-seafood/findings/.

⁸⁷ Departments of Commerce and State, Human Trafficking in the Seafood Supply Chain.

⁸⁸ Ibid.

confiscation, lack of timely access to medical care, and deaths from neglect or violence.⁸⁹ Forced labor is not limited to fishing vessels and may extend to the seafood processing sector.

The U.S. definition for IUU fishing does not include human trafficking, forced labor, and other related crimes (refer to "What Is IUU Fishing?"). Congress may consider directing the Secretary of Commerce, through NOAA NMFS, to provide a new definition for IUU fishing that includes human trafficking, forced labor, and other related crimes. Some in Congress have called NOAA's definition "narrow" and argue that updating the definition would align with international standards.⁹⁰ Others may contend that additional resources may be needed to account for these considerations through new or existing programs to address IUU fishing.

Arms, Drugs, and Wildlife Trafficking. Arms, drugs, and wildlife trafficking crimes often have no direct connection with fishing operations but take place on fishing vessels, "using the fishing operation as a cover, opportunity or means to commit such crimes."⁹¹ Some experts contend that human trafficking and forced labor should not be considered in the same context as arms, drugs, and wildlife trafficking because this conflation "runs the risk of criminalizing victims of modern slavery or forced labor" by potentially associating them with these practices.⁹²

What International Agreements Address IUU Fishing?

FAO provides an international framework to address IUU fishing globally and implements several international fisheries legal instruments. Other multilateral agreements outside of the FAO framework also have been established to address IUU fishing. Selected multilateral fisheries instruments to which the United States has agreed, both internal and external to the FAO framework, are described in chronological order below.

1995 UN Fish Stocks Agreement

The 1995 UN Fish Stocks Agreement elaborates on the UNCLOS principle that nations should cooperate to ensure the long-term conservation of fisheries resources and to promote optimum utilization of these resources.⁹³ In general, the provisions of the 1995 UN Fish Stocks Agreement include conservation and management measures (Articles 5-7); mechanisms for international cooperation, such as RFMOs (Articles 8-16); duties of flag nations (Article 18); compliance and enforcement (Articles 19-23); and dispute settlement (Articles 27-32).

The 1995 UN Fish Stocks Agreement mostly applies to areas beyond the limits of the EEZ and establishes a framework for RFMOs to manage and conserve fish stocks in certain high seas areas. The agreement requires parties to have their commercial fishing vessels accurately collect

⁸⁹ Outlaw Ocean Project, "China: The Superpower of Seafood," https://www.theoutlawocean.com/investigations/china-the-superpower-of-seafood/findings/.

⁹⁰ Letter from The Honorable Raúl M. Grijalva, Member of Congress, The Honorable Jared Huffman, Member of Congress, and The Honorable Frank Pallone Jr., Member of Congress, et al. to The Honorable Joseph R. Biden, Jr., President of the United States, March 11, 2024, https://democrats-naturalresources.house.gov/imo/media/doc/2024-03-11_moc_letter_to_president_biden_re_iuu_fishing.pdf.

⁹¹ FAO, "Links Between IUU Fishing and Crimes in the Fisheries Sector," https://www.fao.org/iuu-fishing/background/links-crimes/en/.

⁹² Mary Mackay et al., "The Intersection Between Illegal Fishing, Crimes at Sea, and Social Well-Being," *Frontiers in Marine Science*, vol. 7 (2020), pp. 1-9, see p. 7.

⁹³ United Nations, "Fish Stocks Agreement."

and share fisheries data. These efforts can assist with assessing and addressing the ecological and economic effects from IUU fishing. The United States is a party to the 1995 UN Fish Stocks Agreement.⁹⁴

Port State Measures Agreement

The Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (commonly known as the Port State Measures Agreement, or PSMA) entered into force in June 2016 and is recognized as the first binding international agreement to target IUU fishing.⁹⁵ The PSMA aims to prevent, deter, and eliminate IUU fishing by preventing vessels participating in IUU fishing activities from using ports and bringing their catches onshore.⁹⁶ According to FAO, "the provisions of the PSMA apply to fishing vessels seeking entry into a designated port of a State which is different to their flag State."⁹⁷ Port state measures focus on vessel inspections, which may limit transport of illegally harvested products through certain ports. These measures also may be a disincentive to engaging in illegal activity, because they can make transshipments of fish and the resupply of fishing vessels more costly. The PSMA additionally serves as a basis for the FAO Global Record of Fishing Vessels, Refrigerated Transport Vessels, and Supply Vessels, which is an online repository used to help deter and eliminate IUU fishing activities, for use by inspectors, administrators, managers, and other stakeholders.⁹⁸ The PSMA has 79 signatories, including the United States.⁹⁹

Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean

On July 25, 2021, the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean entered into force. Canada, China, Denmark (in respect to the Faroe Islands and Greenland), the European Union, Iceland, Japan, Norway, Russia, South Korea, and the United States are signatories to the agreement. The agreement aims to prevent unregulated fishing in the high seas portion of the central Arctic Ocean and facilitate joint scientific research and

⁹⁴ The United States and 25 other nations signed the agreement on December 4, 1995, the first day it was open for signature, and the 1995 UN Fish Stocks Agreement entered into force upon ratification of the 30th nation on December 11, 2001. The U.S. Senate agreed to a resolution of advice and consent to ratification of this agreement on June 27, 1996 (U.S. Congress, Senate, *Agreement for the Implementation of the United Nations Convention of the Law of the Sea of 10 December 1982 Relating to Fish Stocks*, 104th Cong., 2nd sess., February 1996, Treaty Doc. 104-24 (Washington, DC: GPO, 1996)). China is not a party to the 1995 UN Fish Stocks Agreement. United Nations, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements," updated October 24, 2023, https://www.un.org/depts/los/reference_files/chronological_lists_of_ratifications.htm.

⁹⁵ FAO, Port State Measures Agreement.

⁹⁶ FAO, "Illegal, Unreported, and Unregulated (IUU) Fishing: Agreement on Port State Measures (PSMA)," https://www.fao.org/iuu-fishing/international-framework/psma/en/.

⁹⁷ Ibid.

⁹⁸ FAO, "Global Record of Fishing Vessels, Refrigerated Transport Vessels, and Supply Vessels," https://www.fao.org/global-record/en/.

⁹⁹ The U.S. Senate gave its advice and consent to ratification of the PSMA in 2014 (U.S. Congress, Senate, *Agreement* on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing, Done at the Food and Agriculture Organization of the United Nations, Rome, Italy, November 22, 2009, 113th Cong., 2nd sess., April 2014, Treaty Doc. 112-4 (Washington, DC: GPO, 2014). China is not a signatory to the PSMA. FAO, "Parties to the PSMA," https://www.fao.org/port-state-measures/background/parties-psma/en/.

monitoring.¹⁰⁰ Signatories agreed to a 16-year moratorium on commercial fishing in the central Arctic Ocean.¹⁰¹ The moratorium is in place until at least 2037.

World Trade Organization Agreement on Fisheries Subsidies¹⁰²

On June 17, 2022, WTO members finalized an agreement aimed at curbing fisheries subsidies.¹⁰³ The 2022 WTO Agreement on Fisheries Subsidies prohibits governments from providing subsidies to fisheries participating in IUU fishing and fishing of already overfished stocks.¹⁰⁴ It does not address other key issues laid out in a 2017 WTO Ministerial Conference mandate, such as subsidies contributing to overcapacity and special and differential treatment for developing country members, which would include China.¹⁰⁵ The 2022 agreement includes a sunset provision and is to automatically terminate if members fail to agree on "comprehensive disciplines" within four years after entry into force. As of September 2024, 81 WTO members, including the United States, have formally accepted the agreement.¹⁰⁶ The agreement is to enter into force after two-thirds of WTO members ratify it.¹⁰⁷ WTO members continue to negotiate on outstanding issues that were not addressed in the 2022 agreement, including subsidies that contribute to overcapacity, exceptions for certain subsidies, and special and differential treatment for developing countries.¹⁰⁸

How Can Regional Fisheries Management Organizations Deter IUU Fishing?

RFMOs are international fishery management bodies established to conserve and manage transboundary fish stocks (i.e., fish that move across maritime zones), such as tuna or other highly migratory species.¹⁰⁹ For example, the International Commission for the Conservation of

¹⁰³ WTO, "Agreement on Fisheries Subsidies," https://www.wto.org/english/tratop_e/rulesneg_e/fish_e/fish_e.htm.

¹⁰⁰ U.S. Department of State, "The Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean Enters into Force," June 25, 2021, https://www.state.gov/the-agreement-to-prevent-unregulated-high-seas-fisheries-in-the-central-arctic-ocean-enters-into-force/.

¹⁰¹ The Arctic Council, "An Introduction to the International Agreement to Prevent Unregulated Fishing in the High Seas of the Central Arctic Ocean," June 25, 2021, https://arctic-council.org/news/introduction-to-international-agreement-to-prevent-unregulated-fishing-in-the-high-seas-of-the-central-arctic-ocean/.

¹⁰² Liana Wong, Analyst in International Trade and Finance, contributed to this section on the World Trade Organization (WTO) Agreement on Fisheries Subsidies. For more information about this agreement, see CRS In Focus IF11929, *World Trade Organization Fisheries Subsidies Negotiations*, by Liana Wong.

¹⁰⁴ WTO, Agreement on Fisheries Subsidies, WT/MIN(22)/33, June 22, 2022.

¹⁰⁵ China, which self-designated as a developing country, has indicated that it would not take advantage of the flexibilities made available to developing countries under special and differential treatment provisions in a potential expansion of the WTO Agreement on Fisheries Subsidies. See *South China Morning Post*, "China Won't 'Compete' with Other Developing Nations During WTO Fishing Talks, Subsidies Set to be Discussed in Abu Dhabi," February 16, 2024; and WTO, *Fisheries Subsidies Ministerial Decision of 13 December 2017*, WT/MIN(17)/64, December 18, 2017.

¹⁰⁶ Both China and Russia have accepted the agreement. WTO, "Members Submitting Acceptance of Agreement on Fisheries Subsidies," https://www.wto.org/english/tratop_e/rulesneg_e/fish_e/fish_acceptances_e.htm.

¹⁰⁷ 110 WTO members need to accept the agreement for it to enter into force. WTO, "Jordan Formally Accepts Agreement on Fisheries Subsidies," July 23, 2024, https://www.wto.org/english/news_e/news24_e/fish_23jul24_e.htm.

¹⁰⁸ WTO, "DDG Ellard, at FAO Meeting, Urges Completion of Critical Work on Fisheries Subsidies," July 10, 2024, https://www.wto.org/english/news_e/news24_e/ddgae_10jul24_e.htm.

¹⁰⁹ Estimates for the number of RFMOs globally can vary because there is no single definition for how an international (continued...)

Atlantic Tunas is one of five RFMOs focused on the management of tuna and tuna-like species (also known as *tuna RFMOs*).¹¹⁰ Other RFMOs manage fishing activities occurring within a specific region of the high seas; for example, the South Pacific Regional Fisheries Management Organization manages high seas fisheries in the southern Pacific (ranging east-west from South America to Australia).¹¹¹ RFMO membership is open to nations with an interest in fishery resources within a given region.¹¹²

Fisheries management and enforcement vary between RFMOs, which can have implications for regional and global efforts to curb IUU fishing. For example, one way to deter IUU fishing within an RFMO is through high seas boarding and inspection (HSBI) of suspect vessels. Not all RFMOs have adopted a HSBI regime, though.¹¹³ As another example, some RFMOs, such as the Western and Central Pacific Fisheries Commission,¹¹⁴ have an observer program that requires observers to be stationed on fishing vessels to collect biological data and to monitor compliance of fishing observations.¹¹⁵ Enforcement agents may use information collected by at-sea observers to investigate and prosecute violations. However, at-sea observers may be subject to intimidation and harassment, especially on vessels conducting illegal activities.¹¹⁶ Other RFMO actions, including in-depth collaborations with stakeholders, required use of a catch documentation scheme, and maintenance of an "IUU fishing vessel blacklist," may help curb IUU fishing. For example, the Commission for the Conservation of Antarctic Marine Living Resources implemented some of these actions regarding IUU fishing and saw a greater than 90% reduction of IUU fishing for Patagonian toothfish (*Dissostichus eleginoides*; also known as Chilean sea bass) in the Antarctic region.¹¹⁷

The United States belongs to nine RFMOs.¹¹⁸ Most of these RFMOs have an HSBI regime (**Table 1**). Congress has recognized the potential for HSBI to help deter IUU fishing on the high seas. In

body qualifies as an RFMO. FAO, Regional Fisheries Management Organizations and Advisory Bodies: Activities and Developments, 2000-2017, FAO Fisheries and Aquaculture Technical Paper 651, 2020.

¹¹⁰ International Commission for the Conservation of Atlantic Tunas, *Basic Texts*, 7th Revision, Madrid, 2019; and Tuna-org, "Tuna-org," https://www.tuna-org.org/index.htm.

¹¹¹ South Pacific Regional Fishery Management Organization, https://www.sprfmo.int/.

¹¹² European Commission, "Regional Fisheries Management Organisations (RFMOs)," https://oceans-and-fisheries.ec.europa.eu/fisheries/international-agreements/regional-fisheries-management-organisations-rfmos_en; and Pew Charitable Trusts, "FAQ: What Is a Regional Fishery Management Organization?," https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2012/02/23/faq-what-is-a-regional-fishery-management-organization.

¹¹³ For example, FAO, *High Seas Boarding and Inspection of Fishing Vessels: Discussion of Goals, Comparison of Existing Schemes and Draft Language,* September 2003.

¹¹⁴ Western & Central Pacific Fisheries Commission, "Regional Observer Programme," https://www.wcpfc.int/ regional-observer-programme.

¹¹⁵ Fishing observers also exist at the national level. Foreign fishing vessels may be required to have an at-sea observer to operate in the EEZs of certain coastal nations, including the United States, Australia, New Zealand, the Philippines, and Portugal. François Mosnier et al., *Bonding with Observers*, Planet Tracker, April 2021, p. 3.

¹¹⁶ Some of the dangers facing at-sea observers are the same as those faced by fishing crew members. Some at-sea observers have gone missing while working on fishing vessels. For example, Human Rights at Sea, *Investigative Report and Case Study Fisheries Abuses and Related Deaths at Sea in the Pacific Region*, December 2017, p. 8.

¹¹⁷ Miller and Sumaila, "IUU Fishing and Impact;" Henrik Österblom et al., "Reducing Illegal Fishing in the Southern Ocean: A Global Effort," *Solutions*, vol. 4 (2015), pp. 72-79; and Commission for the Conservation of Antarctic Marine Living Resources, "Illegal, Unreported, and Unregulated (IUU) Fishing," https://www.ccamlr.org/en/compliance/illegal-unreported-and-unregulated-iuu-fishing.

¹¹⁸ NOAA, "International and Regional Fisheries Management Organizations," https://www.fisheries.noaa.gov/ international-affairs/international-and-regional-fisheries-management-organizations; and U.S. Department of State, "International Fisheries Management," https://www.state.gov/key-topics-office-of-marine-conservation/international-fisheries-management/.

2019, Congress directed the Secretary of State, in consultation with the Secretary of Commerce, to coordinate with RFMOs, along with other international organizations, to "enhance regional responses to IUU fishing and related transnational organized illegal activities."¹¹⁹

Not all high seas areas have RFMOs or are covered by an RFMO with management and enforcement mandates to counter IUU fishing.¹²⁰ High seas areas in the South China Sea, central Arctic Ocean, southwest Atlantic, and off the Horn of Africa do not have geographically specific RFMOs. The patchwork management and enforcement of high seas fisheries may contribute to unabated IUU fishing. According to some experts, the establishment of new RFMOs could reduce the number of fisheries conflicts between neighboring nations (e.g., in the South China Sea).¹²¹ Congress may consider whether more resources and greater diplomatic support could help in the coordination of fishery management in adjacent territorial waters or in regions currently without RFMOs.

Regional Fisheries Management Organization	Ocean Basin	Purpose (Species/Regional)	High Seas Boarding and Inspection	Number of Members	Membership of Top Global Marine Capture Fisheriesª
Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)	Southern Ocean	Regional	Yes	27	Chile, China, India, Japan, Norway, Peru, Russia, South Korea, United States
Inter-American Tropical Tuna Commission (IATTC)	Eastern Pacific Ocean (Canada to Chile)	Species (tuna and tuna-like species)	Yes	21	China, Japan, Peru, South Korea, United States
International Commission for the Conservation of Atlantic Tunas (ICCAT)	Atlantic Ocean	Species (tuna and tuna-like species)	Yes	52	China, Japan, Norway, Russia, United States
North Atlantic Salmon Conservation Organization (NASCO)	North Atlantic Ocean	Species (Atlantic salmon)	No	7	Norway, Russia, United States
North Pacific Anadromous Fish Commission (NPAFC)	North Pacific Ocean	Species (Pacific salmon and steelhead trout)	Yes	5	Japan, Russia, South Korea, United States

Table I. Regional Fisheries Management Organizations

(with U.S. membership, by alphabetical order)

¹¹⁹ Section 3541 of the Maritime Security and Fisheries Enforcement Act (Division C, Title XXXV, Subtitle C, of P.L. 116-92; commonly known as the Maritime SAFE Act); 16 U.S.C. §8011.

¹²⁰ For example, see FAO, "Marine Protected Areas in the High Seas," https://www.fao.org/fishery/en/topic/16204.

¹²¹ For example, see Shui-Kai Chang et al., "A Step Forward to the Joint Management of the South China Sea Fisheries Resources: Joint Works on Catch, Management Measures, and Conservation Issues," *Marine Policy*, vol. 116 (2020), pp. 1-13.

Regional Fisheries Management Organization	Ocean Basin	Purpose (Species/Regional)	High Seas Boarding and Inspection	Number of Members	Membership of Top Global Marine Capture Fisheries ^a
North Pacific Fisheries Commission (NPFC)	North Pacific Ocean	Regional	Yes	9	China, Japan, Russia, South Korea, United States
Northwest Atlantic Fisheries Organization (NAFO)	Northwest Atlantic Ocean	Regional	Yes	13	Japan, Norway, Russia, South Korea, United States
South Pacific Regional Fisheries Management Organization (SPRFMO)	South Pacific Ocean	Regional	Yes	16	Chile, China, Peru, Russia, South Korea, United States
Western and Central Pacific Fisheries Commission (WCPFC)	Western and Central Pacific Ocean	Species (tuna and tuna-like species)	Yes	26	China, Indonesia, Japan, United States ^b

Sources: CCAMLR, https://www.ccamlr.org/en; CCAMLR, "System of Inspection," https://www.ccamlr.org/en/ compliance/inspections; IATTC, https://www.iattc.org/; IATTC, Resolution on Boarding and Inspection Procedures, Inter-American Tropical Tuna Commission 90th Meeting, June 27-July I, 2016, https://www.iattc.org/ GetAttachment/ecf7172a-57ea-4c20-811c-f1cdafaf8394/IATTC-90-PROP-H-1 REV1-USA-Boarding-and-Inspection-Procedures-track-changes.pdf; ICCAT, https://www.iccat.int/en/; ICCAT, "ICCAT |oint Scheme of International Inspection." https://www.iccat.int/en/Inspection.html: NAFO, https://www.nafo.int/: lean-lacques Maguire et al., Report of the Third NASCO Performance Review, NASCO, Final Report, CNL(23)17rev, March 14, 2023, p. 65, https://nasco.int/wp-content/uploads/2023/05/CNL2317rev Report-of-the-Third-NASCO-Performance-Review.pdf; NAFO, Conservation and Enforcement Measures 2024, NAFO/COM Doc. 24-01, 2024, https://www.nafo.int/Portals/0/PDFs/COM/2024/comdoc24-01.pdf; NASCO, https://nasco.int/; National Oceanic and Atmospheric Administration (NOAA), "International and Regional Fisheries Management Organizations," https://www.fisheries.noaa.gov/international-affairs/international-and-regional-fisheries-managementorganizations; NPAFC, https://www.npafc.org/; NPAFC, "Frequently Asked Questions," https://www.npafc.org/ faq/#iuu; NPFC, https://www.npfc.int/; NPFC, "NPFC High Seas Boarding & Inspection," https://www.npfc.int/ npfc-high-seas-boarding-inspection; SPRFMO, https://www.sprfmo.int/; SPRFMO, Conservation and Management Measure for High Seas Boarding and Inspection Procedures for the South Pacific Regional Fisheries Management Organization (supersedes CMM 11-2015), CMM 11-2023, https://www.sprfmo.int/assets/Fisheries/Conservationand-Management-Measures/2023-CMMs/CMM-11-2023-Boarding-and-Inspection_29Mar23.pdf; U.S. Department of State, "International Fisheries Management," https://www.state.gov/key-topics-office-of-marine-conservation/ international-fisheries-management/; WCPFC, https://www.wcpfc.int/home; and WCPFC, "High Seas Boarding & Inspection," https://www.wcpfc.int/high-seas-boarding-inspection.

Notes: FAO = Food and Agriculture Organization of the United Nations. The United States participates as an observer in the Commission for the Conservation of Southern Bluefin Tuna, Indian Ocean Tuna Commission, and Southern Indian Ocean Fisheries Agreement. According to NOAA, the United States signed the Convention for the South East Atlantic Fisheries Organization but has not ratified it because there is no U.S. fishing in the convention area at present. *Marine capture fisheries* are those in which fishery species are directly harvested from marine waters.

- a. The top 10 marine capture fisheries producers in 2022 by nation as identified by FAO are China (14.8%), Indonesia (8.6%), Peru (6.6%), Russia (5.9%), United States (5.3%), India (4.5%), Vietnam (4.3%), Japan (3.6%), Norway (3.1%), and Chile (2.8%). FAO, The State of World Fisheries and Aquaculture: Blue Transformation in Action, 2024, see Table 6 on p. 29.
- b. Vietnam is listed as a cooperating non-member of the WCPFC.

What U.S. Laws Address IUU Fishing?

Congress has passed several laws aimed at directly or indirectly addressing IUU fishing activities occurring within waters under U.S. jurisdiction and/or the high seas. Some of these laws address the impacts of marine biodiversity loss associated with IUU fishing; others address the law enforcement aspects of IUU fishing. Selected laws are discussed in chronological order below. Additionally, Congress has included directives in appropriations acts regarding agency programs and activities to address IUU fishing.

Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 and High Seas Driftnet Fishing Moratorium Protection Act

In 2006, Congress amended the Moratorium Protection Act to include considerations for IUU fishing.¹²² These amendments were included as part of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA).¹²³ Through the MSRA, Congress also amended Section 2(a) of the Magnuson-Stevens Fishery Conservation and Management Act (P.L. 94-265) to add the finding that "international cooperation is necessary to address IUU fishing and other fishing practices that may harm the sustainability of living marine resources and the U.S. fishing industry."¹²⁴

The Moratorium Protection Act originally was enacted to build on legislation that controls and prohibits large-scale driftnet fishing within the U.S. EEZ and on the high seas.¹²⁵ It also was enacted to prohibit the United States from entering into any international agreement regarding living marine resource conservation and management that would prevent full implementation of the global moratorium on large-scale driftnet fishing on the high seas.¹²⁶ Congress included specific provisions in the MSRA authorizing the Secretary of Commerce to share information on multinational harvesting and processing capacity and IUU fishing in U.S. waters, the high seas, and areas covered by international fishery management agreements with foreign law enforcement and international organizations.¹²⁷ Congress also authorized the Secretary of Commerce to enhance enforcement and technological capabilities to locate and identify IUU fishing vessels on the high seas and encroachments of foreign fishing vessels into the U.S. EEZ.¹²⁸

Congress further required the Secretary of Commerce to produce a biennial report identifying nations whose vessels have participated in IUU fishing and in fishing practices that lead to unregulated bycatch of protected species and sharks, among other unsustainable fishing practices,

¹²² For more on the Moratorium Protection Act, also see the "How Does IUU Fishing Impact the Seafood Industry?" section of this report.

¹²³ 16 U.S.C. §§1826h-1826k, 1829.

¹²⁴ 16 U.S.C. §1801(a)(12).

¹²⁵ Other laws on which the act builds include the Driftnet Impact Monitoring, Assessment, and Control Act of 1987 (Title IV of P.L. 100-220); the Driftnet Act Amendments of 1990 (P.L. 101-627); and the High Seas Driftnet Fisheries Enforcement Act (Title I of P.L. 102-582).

¹²⁶ For example, as expressed in Resolution 46/215 of the UN General Assembly. UN General Assembly, 46/215. *Large-Scale Pelagic Drift-Net Fishing and Its Impact on the Living Marine Resources of the World's Oceans and Seas*, 46th Session, 79th Plenary Meeting, December 20, 1991, pp. 147-148.

¹²⁷ 16 U.S.C. §1829(b)(1).

¹²⁸ 16 U.S.C. §1829(b).

on the high seas or in any nation's EEZ.¹²⁹ The Secretary of Commerce is to identify and list in the report any nations that have not "adopted, implemented, and enforced" a regulatory program governing those activities comparable in effectiveness to that of the United States.¹³⁰ The report also is to identify nations and entities with which the United States will work over a two-year period to address IUU fishing, among other actions.¹³¹

NOAA has submitted these reports to Congress since 2009. The reports include certification determinations on whether identified nations took actions to remedy identified IUU and unsustainable fishing activities.¹³² In the event of a negative certification, NOAA may deny U.S. port access to fishing vessels of that nation and may impose import restrictions on its fish or fish products.¹³³ For example, in October 2024, NOAA is to deny U.S. port entry to fishing vessels from 17 nations, including China, Mexico, and Russia, as a result of negative certification under the Moratorium Protection Act.¹³⁴ Some stakeholders contend that the U.S. denial of port entry to vessels from these nations is unlikely to influence their fishing behaviors because they generally stay away from U.S. ports.¹³⁵

Together with these reports, the Secretary of Commerce, in consultation with the Secretary of State and other relevant parties, is to take actions to improve the effectiveness of international fishery management and conservation actions by urging international fishery management organizations (e.g., RFMOs) of which the United States is a member to address IUU fishing.¹³⁶ Actions include market-related measures, vessel identification lists and monitoring systems, port state controls (i.e., prohibiting vessel port access), and import prohibitions, among other measures to prevent IUU fishing.¹³⁷ As discussed above (see "What is IUU Fishing?"), the Moratorium Protection Act also required the Secretary of Commerce to publish a definition for IUU fishing.¹³⁸

Maritime Security and Fisheries Enforcement Act

In 2019, Congress passed the Maritime Security and Fisheries Enforcement Act (commonly known as the Maritime SAFE Act; Division C, Title XXXV, Subtitle C, of P.L. 116-92) as part of

132 Ibid.

137 Ibid.

^{129 16} U.S.C. §§1826h, 1826j-1826k.

¹³⁰ 16 U.S.C. §§1826h, 1826k. These provisions also include the identification of nations that have not adopted conservation measures comparable to those of the United States "to provide for the conservation of sharks, including measures to prohibit removal of any of the fins of a shark, including the tail, before landing the shark in port," as amended through the Shark Conservation Act of 2010 (P.L. 111-348). 16 U.S.C. §1826k(a)(1)(B).

¹³¹ 16 U.S.C. §1826h; NOAA, NMFS, "NOAA Engagement with Nations and Entities Under the Moratorium Protection Act."

¹³³ 16 U.S.C. §§1826a, 1826j(d)(3), 1826k(c)(5). As also included in amendments to the High Seas Driftnet Fishing Moratorium Protection Act through the Illegal, Unreported, and Unregulated Fishing Enforcement Act of 2015 (P.L. 114-81).

¹³⁴ NOAA denied U.S. port entry to vessels from Algeria, Barbados, China, Côte d'Ivoire, Cyprus, France, Greece, Italy, Malta, Mexico, Namibia, Russia, Senegal, Spain, Trinidad and Tobago, Tunisia, and Turkey. NOAA, "NOAA Fisheries Denies U.S. Port Privileges to Certain Fishing Vessels from 17 Nations," September 10, 2024, https://www.fisheries.noaa.gov/feature-story/noaa-fisheries-denies-us-port-privileges-certain-fishing-vessels-17-nations.

¹³⁵ Daniel Cusick, "NOAA Puts 17 Nations on Notice Over Illegal Fishing," E&E News, September 11, 2024, https://subscriber.politicopro.com/article/eenews/2024/09/11/noaa-puts-17-nations-on-notice-over-illegal-fishing-00178646.

¹³⁶ 16 U.S.C. §1826i(a).

^{138 16} U.S.C. §1826j(e).

the National Defense Authorization Act for Fiscal Year 2020.¹³⁹ The Maritime SAFE Act seeks to support a whole-of-government approach to counter IUU fishing, improve data sharing, support efforts to counter IUU fishing in priority regions around the world, increase global transparency and traceability across the seafood chain, improve global enforcement operations against IUU fishing, and prevent the use of IUU fishing as a financing source for transnational crime.¹⁴⁰ The Maritime SAFE Act also established the Interagency Working Group on IUU Fishing to support and coordinate a government-wide "approach to counter IUU fishing and related threats to maritime security" globally.¹⁴¹

The Maritime SAFE Act also directs certain agencies to carry out specific activities to address IUU fishing. Some examples of these activities are listed below.

- The Department of State, in consultation with the Secretary of Commerce (i.e., through NOAA, as in the case for the below examples), shall coordinate with RFMOs, FAO, and other relevant international organizations to enhance regional responses to IUU fishing and transnational organized illegal activities.¹⁴²
- The Department of State may engage its chiefs of mission in relevant countries to examine IUU fishing.¹⁴³
- The Department of State, in consultation with NOAA and the U.S. Coast Guard (USCG), shall provide assistance to countries in priority regions and priority flag states to improve effectiveness of IUU fishing enforcement, including through law enforcement trainings and coordination activities.¹⁴⁴
- The Department of State, in consultation with NOAA and the USCG, shall support countries in priority regions and priority flag states in adopting and implementing the PSMA.¹⁴⁵
- The Department of State, in consultation with NOAA and the USCG, shall help countries in priority regions and priority flag states increase their capacity for IUU fishing investigations and prosecutions.¹⁴⁶
- Relevant agencies (e.g., the Department of Defense [DOD], NOAA, the USCG) shall expand mechanisms to combat IUU fishing, such as entering into shiprider agreements.¹⁴⁷
- Relevant agencies (e.g., the Department of State, NOAA, the U.S. Agency for International Development [USAID]) shall work to improve transparency and

^{139 16} U.S.C. §§8001 et seq.

^{140 16} U.S.C. §8002.

¹⁴¹ 16 U.S.C. §8031. For more information, see the "What Is the Interagency Working Group on IUU Fishing?" section of this report.

¹⁴² 16 U.S.C. §8011.

¹⁴³ 16 U.S.C. §8012.

¹⁴⁴ 16 U.S.C. §8013(b). For more information, see the "What Is the Interagency Working Group on IUU Fishing?" section of this report.

^{145 16} U.S.C. §8013(c).

¹⁴⁶ 16 U.S.C. §8013(d). For more information, see the "What Is the Interagency Working Group on IUU Fishing?" section of this report.

¹⁴⁷ 16 U.S.C. §8014(a). For more information on shiprider agreements, see the "What Are Shipriders?" section of this report.

traceability programs, including sharing knowledge with countries in priority regions and priority flag states.¹⁴⁸

• Relevant agencies (e.g., the Department of State, NOAA, USAID, the USCG) shall expand the role of technology in combatting IUU fishing.¹⁴⁹

Other U.S. laws may address aspects of IUU fishing. For example, the Pelly Amendment to the Fishermen's Protective Act (P.L. 92-219) provides the President with the authority to limit the importation of any products from a nation where its nationals are engaging in trade or other activities that diminish the effectiveness of any international conservation program for threatened or endangered species or international fisheries.¹⁵⁰ Congress may consider whether U.S laws (e.g., the Pelly Amendment, the Moratorium Protection Act) provide an adequate means to identify and sanction vessels, companies, or countries that participate or condone IUU activities or if such efforts could be strengthened.¹⁵¹ Congress also may consider whether certain U.S. laws should be expanded to include other types of illegal activities associated with fishing operations, such as human trafficking, or whether these concerns should be handled through other existing laws, such as the Tariff Act of 1930 or the Trafficking Victims Protection Act.¹⁵²

What Is the Interagency Working Group on IUU Fishing?

The Maritime SAFE Act established the Interagency Working Group (IWG) on IUU Fishing to support and coordinate a government-wide effort to address IUU fishing globally.¹⁵³ The working group comprises representatives from 21 federal agencies.¹⁵⁴ In June 2023, the U.S. Department of State started its three-year term as chair of IWG on IUU Fishing, with representatives from NOAA and the USCG serving as deputy chairs.¹⁵⁵ The chair of the working group rotates among the Secretary of the Department of Homeland Security (in which the USCG operates), Secretary of State, and NOAA Administrator.¹⁵⁶

Congress directed the IWG on IUU Fishing to develop a "strategic plan for combating IUU fishing and enhancing maritime security, including specific strategies with monitoring

^{148 16} U.S.C. §8015.

¹⁴⁹ 16 U.S.C. §8016. For more information, see the "What Technologies Can Be Used to Identify Vessels Suspected of IUU Fishing?" section of this report.

^{150 22} U.S.C. §1978.

¹⁵¹ For example, NOAA, NMFS, "NOAA Engagement with Nations and Entities Under the Moratorium Protection Act"; and NOAA, NMFS, "Port Restrictions Under the Moratorium Protection Act," https://www.fisheries.noaa.gov/content/port-restrictions-under-moratorium-protection-act (hereinafter NOAA, NMFS, "Port Restrictions Under the Moratorium Protection Act").

^{152 19} U.S.C. §§1202-1683g; and 22 U.S.C. §§7101-7115.

¹⁵³ Ibid.; and NOAA, NMFS, "U.S. Interagency Working Group on IUU Fishing," https://www.fisheries.noaa.gov/ national/international-affairs/us-interagency-working-group-iuu-fishing. Hereinafter, NOAA, NMFS, "U.S. Interagency Working Group on IUU Fishing."

¹⁵⁴ 16 U.S.C. §8031(b). For a list of the 21 agencies, see NOAA, NMFS, "U.S. Interagency Working Group on IUU Fishing."

¹⁵⁵ U.S. Department of State, "Illegal, Unreported, and Unregulated Fishing." NOAA served as the first chair for the U.S. Interagency Working Group (IWG) on IUU Fishing (NOAA, NMFS, "U.S. Interagency Working Group on IUU Fishing").

¹⁵⁶ 16 U.S.C. §8031(b)(1).

benchmarks for addressing IUU fishing in priority regions."¹⁵⁷ In October 2022, the working group released its *National 5-Year Strategy for Combatting IUU Fishing*.¹⁵⁸ The strategy includes three objectives to combat IUU fishing: (1) promote sustainable fisheries management and governance; (2) enhance the monitoring, control, and surveillance of marine fishing operations; and (3) ensure only legal, sustainable, and responsibility harvested seafood enters trade.¹⁵⁹

Congress also charged the IWG on IUU Fishing to identify priority regions and priority flag states. A *priority region* means a region "(A) that is at high risk for IUU fishing activity or the entry of illegally caught seafood into the markets of countries in the region; and (B) in which countries lack the capacity to fully address the illegal activity described in subparagraph (A)."¹⁶⁰ The IWG on IUU Fishing assessed different regions and placed regions into three tiers of priority (**Table 2**).

- Tier One represents "regions where there was both clear information about the challenges resulting from IUU fishing and ample existing opportunities for U.S. partnerships and activities that could address those challenges."¹⁶¹
- Tier Two represents regions where "U.S. agencies and our partners are looking for opportunities to build law enforcement cooperation, share information, and support training and capacity building within these regions."¹⁶²
- Tier Three represents regions where IUU fishing has been raised as a concern, though "details are limited."¹⁶³

Tier One	Tier Two	Tier Three Middle East and Gulf States (Persian Gulf, Gulf of Oman, Gulf of Aden, Red Sea)	
South and Central America (Pacific Ocean)	Central America and Caribbean (Gulf of Mexico, Caribbean Sea)		
Gulf of Guinea	South America (Atlantic Ocean)	South Asia (Bay of Bengal)	
South Asia (Gulf of Thailand, Java Sea, Banda Sea, Celebes Sea)	Northwest Africa (Atlantic Ocean)	East Asia Pacific (East China Sea, Sea of Japan, Sea of Okhotsk)	
Pacific Islands Southern and Central Africa (Atlantic and Indian Ocean)		—	
_	East Africa (Indian Ocean)	_	

Table 2. Priority Regions at Risk for IUU Fishing

(as identified by the U.S. Interagency Working Group on IUU Fishing)

Source: U.S. Interagency Working Group on IUU Fishing, *National 5-Year Strategy for Combating Illegal, Unreported, and Unregulated Fishing:* 2022-2026, Report to Congress, October 2022, pp. AI-I–AI-3. **Notes:** IUU fishing = illegal, unreported, and unregulated fishing.

162 Ibid.

¹⁶³ Ibid., p. A1-3.

¹⁵⁷ 16 U.S.C. §8032.

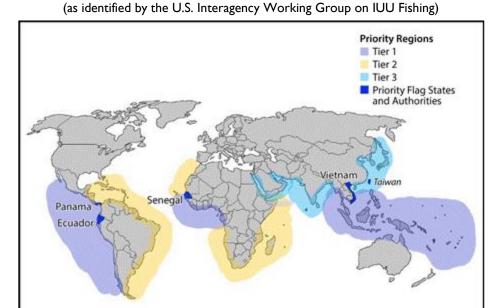
¹⁵⁸ IWG on IUU Fishing, *National 5-Year Strategy for Combating Illegal, Unreported, and Unregulated Fishing: 2022-2026*, Report to Congress, October 2022, pp. 1-A3-1. Hereinafter IWG on IUU Fishing, *National 5-Year Strategy for Combating IUU Fishing*.

¹⁵⁹ Ibid., p. 6.

¹⁶⁰ 16 U.S.C. §8001(9).

¹⁶¹ IWG on IUU Fishing, National 5-Year Strategy for Combating IUU Fishing, p. A1-2.

The IWG on IUU Fishing identified *priority flag* states or authorities based on those with vessels that "actively engage in, knowingly profit from, or are complicit in IUU fishing" and the priority flag states or authorities are "willing, but lack ... the capacity, to monitor or take effective enforcement action against ... [their fleets]."¹⁶⁴ Based on this definition, the IWG on IUU Fishing identified five priority flag states and authorities to work with: Ecuador, Panama, Senegal, Taiwan, and Vietnam (**Figure 3**).¹⁶⁵





Source: Congressional Research Service, modified from U.S. Interagency Working Group on IUU Fishing, National 5-Year Strategy for Combating Illegal, Unreported, and Unregulated Fishing: 2022-2026, Report to Congress, October 2022, p. A2-1.

Notes: IUU fishing = illegal, unreported, and unregulated fishing.

Congress also directed the IWG on IUU Fishing to submit a report to Congress no later than five years after the IWG's submission of the *National 5-Year Strategy for Combatting IUU Fishing*. The report is required to contain summaries of global and regional trends in IUU fishing and situational threats with respect to IUU fishing in priority regions and the capacity of countries in the regions to respond to such threats as a result of U.S. assistance, among other summaries.¹⁶⁶ The report also is required to assess the extent of the convergence of transnational crimes (i.e., human trafficking and forced labor) and IUU fishing; the capacity of priority flag states to police their fleet; and the involvement of organizations designated as foreign terrorist organizations in IUU fishing, among other assessments outlined in the national strategy.¹⁶⁷

Congress also directed NOAA, in coordination with the Department of State and the USCG, to establish an IWG sub-working group to address IUU fishing in the U.S. EEZ in the Gulf of Mexico.¹⁶⁸ Pursuant to the Maritime SAFE Act, NOAA submitted a report to Congress in 2021

- 166 16 U.S.C. §8033.
- ¹⁶⁷ Ibid.

^{164 16} U.S.C. §8001(8).

¹⁶⁵ IWG on IUU Fishing, National 5-Year Strategy for Combating IUU Fishing, p. A2-1.

^{168 16} U.S.C. §8034.

about federal actions and policies to address "Mexican nationals operating out of fishing camps in Tamaulipas state, repeatedly entering the U.S. [EEZ] of the Gulf of Mexico via small boats, and fishing without authorization."¹⁶⁹ These findings were in addition to information included in NOAA's recent reports to Congress regarding Mexico IUU fishing activities submitted in accordance with the Moratorium Protection Act.¹⁷⁰

What Actions Are U.S. Agencies Taking to Address IUU Fishing?

Several federal departments and agencies, including DOD, the Department of State, NOAA, and the USCG, engage in various efforts to combat IUU fishing on the high seas and in the EEZs of partner nations. These agencies' efforts include establishing partnerships; improving enforcement tools, such as HSBI; identifying and sharing information about countries that have fishing vessels participating in IUU fishing activities; participating in joint investigations of IUU fishing activities; and assisting partner nations to develop and maintain their own counter IUU fishing capacity, among other lines of effort.¹⁷¹ Selected efforts from federal agencies (in alphabetical order) are described below.¹⁷²

National Oceanic and Atmospheric Administration. NOAA NMFS coordinates with federal agencies, foreign governments, international organizations, and other partners to address IUU fishing. NMFS identifies nations and entities that have vessels participating in IUU fishing activities and fishing activities that result in bycatch (i.e., nontarget catch) of protected species or sharks on the high seas or in any nation's EEZ.¹⁷³ NMFS also conducts PSMA inspections and enforces multilateral agreements and regulations.¹⁷⁴ Furthermore, NMFS trains personnel from other nations to enhance their abilities to implement the PSMA and participates in joint capacity-building workshops through international partnerships to address IUU fishing.¹⁷⁵ NMFS and U.S. Customs and Border Protection (CBP) monitor U.S. seafood imports through the U.S. Seafood Import Monitoring Program.¹⁷⁶ Additionally, NMFS participates in other trade monitoring programs, such as the Antarctic Marine Living Resources Program, Atlantic Highly Migratory Species International Trade Program, and Tuna Tracking and Verification Program. NMFS supports Fisheries International Cooperation Projects, including those focused on addressing IUU

¹⁷⁴ In accordance with 16 U.S.C. §8013(c).

¹⁶⁹ NOAA, *Report of the Gulf of Mexico Illegal, Unreported, and Unregulated Fishing Subworking Group*, Report to Congress, 2021.

¹⁷⁰ NOAA, NMFS, *Improving International Fisheries Management: 2019 Report to Congress*, September 2019; NOAA, NMFS, *Improving International Fisheries Management: 2021 Report to Congress*, August 2021; NOAA, NMFS, "NOAA Engagement with Nations and Entities Under the Moratorium Protection Act;" and NOAA, NMFS, "Port Restrictions Under the Moratorium Protection Act." For more information, see the "Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 and High Seas Driftnet Fishing Moratorium Protection Act" section of this report.

¹⁷¹ NOAA, NMFS, Improving International Fisheries Management, Report to Congress, August 2023, p. 3.

¹⁷² For a more comprehensive list of federal departments and agencies involved in addressing IUU fishing, see IWG on IUU Fishing, "Working Group Member Agencies," https://iuufishing.noaa.gov/member-agencies/.

¹⁷³ NOAA, NMFS, "NOAA Engagement with Nations and Entities Under the Moratorium Protection Act"; see footnote 133.

¹⁷⁵ In accordance with 16 U.S.C. §8013(b); NOAA, NMFS, "Countering Illegal, Unreported, and Unregulated Fishing: Capacity Building and Technical Assistance," https://www.fisheries.noaa.gov/enforcement/countering-illegalunreported-and-unregulated-fishing-capacity-building-and-technical#counter-iuu-fishing-technical-assistance-andcapacity-building.

¹⁷⁶ For more information, see the "What Is the Seafood Import Monitoring Program?" section of this report.

fishing, through the Fisheries International Cooperation and Assistance Program. Additionally, NMFS enforces other related laws, such as the Lacey Act, as amended,¹⁷⁷ which prohibits the sale or purchase of any wildlife taken or sold in violation of any U.S. law, treaty, or regulation, and prohibits false labeling.¹⁷⁸

U.S. Agency for International Development. USAID administers biodiversity programs to promote marine conservation and sustainable fisheries management, which include activities to combat IUU fishing.¹⁷⁹ Some of USAID's efforts to combat IUU fishing focus on promoting seafood traceability.¹⁸⁰ For example, USAID works with several private foundations through the Seafood Alliance for Legality and Traceability to help governments and communities to promote seafood traceability and adopt a digital traceability system.¹⁸¹ In addition, USAID's Feed the Future initiative may approach IUU fishing from a food security perspective. For example, a project in Senegal funded under USAID's Feed the Future initiative seeks to curb overfishing and the use of illegal fishing equipment and practices, among other aims.¹⁸² In addition to these efforts, S.Rept. 118-200, the Appropriations Committee report accompanying S. 4797 in the 118th Congress, would direct USAID's Bureau for Inclusive Growth, Partnership, and Innovation and Bureau for Resilience, Environment, and Food Security to "work together to address the fundamental system failures that allow for IUU fishing to persist, jeopardizing economic, environmental, and food security objectives."

U.S. Coast Guard. The USCG is a multi-mission maritime service with the authority to conduct maritime law enforcement operations, including operations aimed at combating IUU fishing activity.¹⁸³ The USCG enforces U.S. and international living marine resources laws in the U.S. EEZ and in key areas of the high seas. The USCG counters IUU fishing using measures such as at-sea operations, vessel tracking data,¹⁸⁴ shiprider agreements,¹⁸⁵ and cooperation in partner nation capacity-building exercises.¹⁸⁶

183 14 U.S.C §102.

¹⁸⁴ For more information, see the "

¹⁷⁷ 16 U.S.C. §§3371-3378 and 18 U.S.C. §§42-43.

¹⁷⁸ NOAA, NMFS, "Understanding Laws and NOAA Fisheries – What is the Lacey Act and why is it important," https://www.fisheries.noaa.gov/insight/understanding-laws-and-noaa-fisheries#what-is-the-lacey-act-and-why-is-itimportant?; U.S. Department of Justice, Environment and Natural Resources Division, "Environmental Crimes Bulletin – July 2024," https://www.justice.gov/enrd/blog/environmental-crimes-bulletin-july-2024; U.S. Fish and Wildlife Service (FWS), "Lacey Act Amendments of 1981," https://www.fws.gov/law/lacey-act-amendments-1981.

¹⁷⁹ IWG on IUU Fishing, "United States Agency for International Development," https://iuufishing.noaa.gov/memberagencies/usagencyforinternationaldevelopment/. According to the U.S. Agency for International Development (USAID), in FY2021, the agency "invested more than \$60 million in over 20 countries to promote sustainable fisheries and conserve marine biodiversity" (USAID, "Illegal, Unreported, and Unregulated Fishing," https://www.usaid.gov/ biodiversity/illegal-unreported-and-unregulated-fishing).

¹⁸⁰ USAID, "Illegal, Unreported, and Unregulated Fishing," https://www.usaid.gov/biodiversity/illegal-unreported-and-unregulated-fishing.

¹⁸¹ FishWise, "SALT," https://fishwise.org/salt/.

¹⁸²¹⁸² Feed the Future, "Senegal Dekkal Geej, Towards Sustainable Fisheries," https://winrock.org/wp-content/uploads/ 2019/06/20200103-FtF-Senegal-Dekkal-Geej-Handout.pdf; and IWG on IUU Fishing, *National 5-Year Strategy for Combating IUU Fishing*, p. 11.

What Technologies Can Be Used to Identify Vessels Suspected of IUU Fishing?" section of this report.

¹⁸⁵ For more information, see the "What Are Shipriders?" section of this report.

¹⁸⁶ IWG on IUU Fishing, *National 5-Year Strategy for Combating IUU Fishing*, pp. 1-A3-1; and U.S. Coast Guard (USCG), *Illegal, Unreported, and Unregulated Fishing Strategic Outlook Implementation Plan*, July 2021, pp. 1-29.

The USCG has limited legislative authority to unilaterally provide training and technical assistance to foreign countries to address IUU fishing.¹⁸⁷ The USCG is generally considered a service provider under auspices of security assistance and cooperation programs under Title 22 and Title 10 of the *U.S. Code*. Title 10, Section §301(7) of the *U.S. Code* defines *security cooperation programs and activities of the Department of Defense* as

any program, activity (including exercise), or interaction of the Department of Defense with the security establishment of a foreign country to achieve a purpose as follows:

(A) To build and develop allied and friendly security capabilities for self-defense and multinational operations.

(B) To provide the armed forces with access to the foreign country during peacetime or a contingency operation.

(C) To build relationships that promote specific United States security interests.

The USCG may, when requested to do so by another federal agency (e.g., Department of State, DOD), use its personnel and facilities to participate in foreign security assistance and cooperation activities.¹⁸⁸ The USCG must be "especially qualified" to provide such requested capacity-building assistance, according to the law.¹⁸⁹

The USCG also could provide technical assistance, including law enforcement and maritime safety and security training, to foreign navies, coast guards, and other maritime law enforcement agencies, including national-level security forces.¹⁹⁰ Under this scenario, another federal agency's international engagement authorities would be conveyed to the USCG with the transfer of funding.

U.S. Department of Defense. DOD supports federal agencies and foreign partners involved in directly combatting IUU fishing.¹⁹¹ Congress has authorized DOD to use its appropriations to fund and conduct security cooperation activities with national-level security forces, generally under Title 10 of the *U.S. Code*.¹⁹² Most DOD security cooperation funding is authorized under DOD's "building partner capacity" authority, which authorizes DOD to bolster maritime security capacities, among other activities.¹⁹³ DOD also implements some Department of State security assistance through the provision of training and defense equipment for partner navies and national-level security forces via programs such as Excess Defense Article and Foreign Military Sales. The House-passed version of the Servicemember Quality of Life Improvement and National Defense Authorization Act for Fiscal Year 2025 (H.R. 8070) would amend 10 U.S.C. §333(a) to include counter-illegal, unreported, and unregulated fishing operations as part of the Secretary of Defense's foreign capacity building authorities.¹⁹⁴ Also, H.Rept. 118-529, the House Armed Services Committee report accompanying its reported version of H.R. 8070, would direct DOD to provide the committee an "overview of fishing activities in the Indo-Pacific region by the

¹⁸⁷ Email correspondence from the USCG to CRS, June 14, 2024.

^{188 14} U.S.C. §701.

^{189 14} U.S.C. §701(a).

¹⁹⁰ 14 U.S.C. §710(b)

¹⁹¹ IWG on IUU Fishing, "Department of Defense," https://iuufishing.noaa.gov/member-agencies/departmentofdefense/

¹⁹² For example, 10 U.S.C. §§311, 312, 321, 333.

¹⁹³ 10 U.S.C. §333.

¹⁹⁴ See Section 1237 of H.R. 8070 in the 118th Congress.

distant-water fishing fleets of foreign governments that are employed as extensions of such countries' official maritime security forces."¹⁹⁵

U.S. Department of State. According to the Department of State, the department is working to (1) strengthen overall ocean governance and make multilateral processes more effective; (2) increase fishing transparency requirements, improve information sharing across the U.S. government and with allied and partner nations, and implement cooperative enforcement and penalty tools; (3) apply innovative technologies to identify IUU fishing; and (4) raise awareness and commitments of collaborators to counter IUU fishing.¹⁹⁶ The Department of State also administers security assistance programs in foreign countries that (among other objectives) aim to build the capacity of maritime law enforcement agencies to govern their maritime domains, including fishery enforcement.¹⁹⁷ Both the Department of State and some Members of Congress have recognized China's role in the exploitation of global fisheries,¹⁹⁸ including through requesting and recommending funding to the Department of State's "Countering [People's Republic of China] Influence Fund" to address IUU fishing threats.

U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service's (FWS's) Office of Law Enforcement attaché program sends special agents to U.S. embassies in host nations to coordinate with host country officials in wildlife trafficking and natural resource criminal investigations.¹⁹⁹ The 2013 Executive Order 13648, "Combatting Wildlife Trafficking," initiated the FWS attaché program, among other actions to address wildlife and natural resource crimes.²⁰⁰ Historically, FWS attachés have worked on terrestrial (e.g., elephant, rhino) wildlife trafficking crimes. In recent years, IUU fishing issues have become more pressing,²⁰¹ leading FWS to increase its engagement on IUU fishing issues. For example, FWS has conducted seminars with host nations to increase their awareness of IUU fishing and aid in criminal investigations. In 2019, the FWS attaché established a Gabonese IUU fishing pilot project to detect IUU fishing activities.²⁰² The project used open-source information to identify vessels and their movement patterns in the Gabonese EEZ and the broader West African Coast. One outcome of the project was the interdiction of several vessels, including the seizure of a Chinese fishing trawler that was a repeated illegal fishing offender in Gabonese water. FWS also enforces the Lacey Act, as amended, a mechanism for implementing trade restrictions on the import and illegal trade of

¹⁹⁵ See Title XIII of H.Rept. 118-529 in the 118th Congress.

¹⁹⁶ U.S. Department of State, "Illegal, Unreported, and Unregulated Fishing."

¹⁹⁷ For example, 22 U.S.C. §§2348, 2291, 2763.

¹⁹⁸ For example, see S.Rept. 118-200, the Senate Committee on Appropriations report accompanying S. 4797, and H.Rept. 118-554, the House Committee on Appropriations report accompanying H.R. 8771, in the 118th Congress; and U.S. Department of State, *Congressional Budget Justification: Department of State, Foreign Operations, and Related Programs Fiscal Year 2025*, p. 125.

¹⁹⁹ IWG on IUU Fishing, "U.S. Fish and Wildlife Service," https://iuufishing.noaa.gov/member-agencies/ usfishandwildlifeservice/; FWS, "International Affairs—Our Laws and Regulations," https://www.fws.gov/program/ international-affairs; and Executive Order 13773, "Enforcing Federal Law with Respect to Transnational Criminal Organizations and Preventing International Trafficking," 82 *Federal Register* 10691, February 14, 2017.

²⁰⁰ Executive Order 13648, "Combatting Wildlife Trafficking," 78 *Federal Register* 40621, July 5, 2013; and White House, *National Strategy for Combatting Wildlife Trafficking*, February 2014, pp. 1-12. The Eliminate, Neutralize, and Disrupt Wildlife Trafficking Act of 2016 (P.L. 114-231) established a national policy on wildlife trafficking. 16 U.S.C. §7643.

²⁰¹ Email correspondence from FWS to CRS, November 1, 2023.

²⁰² U.S. Department of State, "2020 END Wildlife Trafficking Strategic Review," October 26, 2020, https://www.state.gov/2020-end-wildlife-trafficking-strategic-review/.

certain wildlife (including fish), plants, and related products, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora.²⁰³

What Is the Seafood Import Monitoring Program?

NMFS and CBP monitor U.S. seafood imports through the Seafood Import Monitoring Program (SIMP) with the goal of preventing imported IUU fish and fish products from entering U.S. commerce.²⁰⁴ SIMP is a risk-based seafood traceability program that sets reporting and recordkeeping requirements from the point of harvest to entry into U.S. commerce.²⁰⁵ The program requires seafood importers to exercise increased control over their supply chains, particularly for 13 seafood species groups,²⁰⁶ by obtaining an NMFS International Fisheries Trade Permit.²⁰⁷ SIMP also requires U.S. importers to retain chain-of-custody information for all imports of covered species and to document each step of the supply chain.²⁰⁸ The program currently covers nearly half of all U.S. seafood imports, comprising approximately 1.7 billion pounds of seafood as of FY2023,²⁰⁹ with data for priority species collected through the International Trade Data System.²¹⁰ SIMP does not require importers to collect labor information.²¹¹

SIMP was established by the Secretary of Commerce in 2016, and its implementation began in 2018 in accordance with the Consolidated Appropriations Act, 2018 (P.L. 115-141). The program aims to serve as both a screening mechanism and a deterrent against the entry of IUU-associated and misrepresented seafood into the U.S. market.²¹² SIMP does not include routine examinations of each shipment but relies on data reporting and recordkeeping requirements as well as random and targeted audits of shipments performed by NMFS, CBP, and state agency partners.²¹³

Congress requires NMFS to submit reports regarding its efforts through SIMP to prevent seafood associated with IUU fishing and forced labor from entering the United States, including annual reports on the program.²¹⁴ Each annual report is to include information regarding the volume and

²⁰⁵ NOAA, NMFS, "Seafood Import Monitoring Program Facts and Reports," https://www.fisheries.noaa.gov/ international/international-affairs/seafood-import-monitoring-program-facts-and-reports. Hereinafter NOAA, NMFS, "Seafood Import Monitoring Program Facts and Reports."

²⁰³ As of September 2024, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) regulates the trade of more than 34,300 species of plants and 6,600 species of animals (CITES, "The CITES Species," https://cites.org/eng/disc/species.php). The United States is a party to CITES (CITES, "List of Parties to the Convention," https://cites.org/eng/disc/parties/index.php).

²⁰⁴ NOAA, NMFS, "Seafood Import Monitoring Program," https://www.fisheries.noaa.gov/international/internationalaffairs/seafood-import-monitoring-program. Hereinafter NOAA, NMFS, "Seafood Import Monitoring Program."

²⁰⁶ NOAA, NMFS, "Seafood Import Monitoring Program."

²⁰⁷ NOAA, NMFS, "International Fisheries Trade Permit," https://www.fisheries.noaa.gov/permit/international-fisheries-trade-permit.

²⁰⁸ NOAA, NMFS, "Seafood Import Monitoring Program Facts and Reports."

²⁰⁹ Ibid.; NOAA, NMFS, Report on the Seafood Import Monitoring Program—FY2023.

²¹⁰ Examples of data include information on species, quantity, vessel and flag state, fishing gear used, landing or offloading dates, names of recipients, and U.S. importer of record. NOAA, NMFS, *Report on the Seafood Import Monitoring Program*—*FY2023*.

 ²¹¹ NOAA, NMFS, *Report on the Implementation of the U.S. Seafood Import Monitoring Program*, April 2021, pp. 1 17. Hereinafter NOAA, NMFS, *Report on the Implementation of the U.S. Seafood Import Monitoring Program*.
 ²¹² Ibid.

²¹³ Ibid.; NOAA, NMFS, Report on the Seafood Import Monitoring Program—FY2023.

²¹⁴ For example, as stipulated in the Consolidated Appropriations Act, 2018 (P.L. 115-141); Consolidated (continued...)

value of seafood species subject to SIMP, NMFS enforcement efforts related to SIMP, the percentage of import shipments audited, instances of noncompliance with SIMP requirements, and seafood species and harvest locations for which noncompliance and legal violations were most prevalent, among other information.²¹⁵

NMFS reported in 2024 that it had undertaken over 3,900 audits of seafood imports from January 2018 through September 2023, which comprised 0.5% of all SIMP imports since implementation.²¹⁶ The majority of SIMP imports typically include shrimp (33%-56%), tunas (31%-47%), and cods (5%-10%), based on reported FY2020 and FY2023 weight values.²¹⁷ Proportions of total audits by species group generally align with these percentages.²¹⁸ NMFS identified noncompliance with SIMP requirements in approximately 43% of audited seafood during FY2020 and noncompliance in 56% of audits during FY2023.²¹⁹ Compliance with SIMP requirements per species may vary, and incidents of noncompliance may be greater in less frequently audited species (e.g., 16 audits of blue crab were conducted in FY2020, of which 88% were noncompliant, compared with 448 audits of shrimp that year, of which 35% were noncompliant). During FY2023, incomplete chain of custody and misreported harvest weight were the most frequent findings in noncompliant audits, with tunas having the highest frequency of noncompliance. In cases of noncompliance, only a small number typically warrant enforcement action by NMFS's Office of Law Enforcement (e.g., approximately 10% of SIMP-related cases initiated in FY2020 resulted in civil penalties).²²⁰

NMFS issued a proposed rule in December 2022 to expand SIMP in accordance with directives in the June 2022 White House *Memorandum on Combatting IUU Fishing and Associated Labor Abuses*.²²¹ NMFS proposed adding species or groups of species beyond the 13 currently associated with SIMP.²²² In November 2023, NMFS announced it was withdrawing this proposed rule in light of the public comments it received and would instead conduct a comprehensive program review "to strengthen the impact and effectiveness of SIMP."²²³ NMFS completed this

Appropriations Act, 2020 (P.L. 116-93); and Don Young Coast Guard Authorization Act of 2022 (Division K, Title CXIII of P.L. 117-263); 16 U.S.C. §1885a.

²¹⁵ 16 U.S.C. §1885a(b).

²¹⁶ NOAA, NMFS, Report on the Seafood Import Monitoring Program—FY2023.

²¹⁷ Ibid.; NOAA, NMFS, Report on the Implementation of the U.S. Seafood Import Monitoring Program.

²¹⁸ NOAA, NMFS, *Report on the Implementation of the U.S. Seafood Import Monitoring Program*; and NOAA, NMFS, *Report on the Seafood Import Monitoring Program—FY2023*.

²¹⁹ NOAA, NMFS, Report on the Implementation of the U.S. Seafood Import Monitoring Program; and NOAA, NMFS, Report on the Seafood Import Monitoring Program—FY2023.

²²⁰ NOAA, NMFS, Report on the Implementation of the U.S. Seafood Import Monitoring Program; and NOAA, NMFS, Report on the Seafood Import Monitoring Program—FY2023.

²²¹ NOAA, NMFS, "Magnuson-Stevens Fishery Conservation and Management Act; Seafood Import Monitoring Program," 87 *Federal Register* 79836-79848, December 28, 2022 (hereinafter NOAA, NMFS, 87 *Federal Register* 79836-79848); and White House, *Memorandum on Combating Illegal, Unreported, and Unregulated Fishing and Associated Labor Abuses*, National Security Memorandum/NSM-11, June 27, 2022.

²²² These species and species groups would have included all species of snappers (family Lutjanidae); several additional tuna species; and new species groups of cuttlefish, squid, octopus, eels (*Anguilla* sp.), queen conch (*Aliger gigas*), and Caribbean spiny lobster (*Panulirus argus*). NOAA, NMFS, 87 *Federal Register* 79836-79848.

²²³ NOAA, NMFS, "Magnuson-Stevens Fishery Conservation and Management Act; Seafood Import Monitoring Program," 88 *Federal Register* 78714-78715, November 16, 2023; and NOAA, NMFS, "NOAA Fisheries Announces Comprehensive Review of Its Seafood Import Monitoring Program to Strengthen Its Impact and Effectiveness," https://www.fisheries.noaa.gov/feature-story/noaa-fisheries-announces-comprehensive-review-its-seafood-importmonitoring-program.

program review in summer 2024 and plans to implement its recommendations.²²⁴ The June 2022 White House memorandum also directed NMFS to seek resources and technologies to improve SIMP's effectiveness. NMFS has stated that it intends to update its current audit procedures to incorporate automated screening, including models that incorporate artificial intelligence and machine learning approaches, as also directed by Congress.²²⁵

Some U.S. programs, such as SIMP and existing customs enforcement measures, have attempted to provide greater scrutiny of seafood imports. To support these efforts, Congress has provided increasing funding for SIMP since its implementation, most recently providing approximately \$6 million per year in FY2024.²²⁶ Some experts and stakeholders have characterized NMFS's implementation of SIMP as "a good start," while recommending additional international coordination and broader expansions of the program beyond those initially proposed by NMFS.²²⁷ Other stakeholders have raised concerns that SIMP fails to address human rights violations in the seafood industry and includes gaps in traceability from the point of import to the final point of sale.²²⁸ Several stakeholders have questioned the overall effectiveness of SIMP, because some Americans are still consuming seafood associated with IUU fishing .²²⁹ Stakeholders and experts also point out the need for greater enforcement capacity for traceability programs such as SIMP to be effective in preventing IUU fishing products from entering national markets.²³⁰

Congress may consider expanding SIMP to include all species imported by the United States. Congress also may consider increasing customs enforcement at the border and whether greater resources are needed to fully account for IUU fished seafood entering the United States. Increased efforts to trace seafood also serve multiple purposes, such as improving seafood safety, stopping seafood fraud, and identifying seafood production related to human trafficking. In addition, Congress may explore ways to improve seafood traceability to verify information currently collected on the origin of and route taken by seafood before its entry into the United States.

²²⁴ NOAA, NMFS, "Webinars on the Seafood Import Monitoring Program: Comprehensive Review Update," https://www.fisheries.noaa.gov/event/webinars-seafood-import-monitoring-program-comprehensive-review-update; Sally Yozell et al., Workshop Summary Report: Reimagining the Seafood Import Monitoring Program, Workshop I, Stimson Center and FishWise, May 2024, pp. 1-32, https://www.stimson.org/wp-content/uploads/2024/07/ REPORT_ReimaginingSIMPWorkshop1StimsonFishWise.pdf; and Sally Yozell et al., Workshop Summary Report: Reimagining the Seafood Import Monitoring Program, Session II, Stimson Center and FishWise, July 2024, pp. 1-27, https://www.stimson.org/wp-content/uploads/2024/07/REPORT_Reimagining-SIMP-Session-2-StimsonFishWise.pdf.

²²⁵ NOAA, NMFS, *Report on the Seafood Import Monitoring Program—FY2023*; "Explanatory Statement Submitted by Ms. DeLauro, Chair of the House Committee on Appropriations, Regarding the House Amendment to the Senate Amendment to H.R. 2471, Consolidated Appropriations Act, 2022," *Congressional Record*, vol. 168, No. 42-Book III (March 9, 2022), p. H1778.

²²⁶ "Explanatory Statement Submitted by Mrs. Murray, Chair of the Senate Committee on Appropriations, Regarding the H.R. 4366, Consolidated Appropriations Act, 2024," *Congressional Record*, vol. 170, No. 39 (March 5, 2024), p. S1401.

²²⁷ Jessica A. Gephart, Halley E. Froehlich, and Trevor A. Branch, "Opinion: To Create Sustainable Seafood Industries, the United States Needs a Better Accounting of Imports and Exports," *Proceedings of the National Academy of Sciences*, vol. 116, no. 19 (2019), pp. 9142-9146; Natural Resources Defense Council, *Strengthening U.S. Leadership to Deter Illegal Seafood: Implementation Challenges and Recommendations for the Seafood Import Monitoring Program*, January 2023.

²²⁸ Jack Cheney, "What Is the Seafood Import Monitoring Program (SIMP)?," University of Washington, April 12, 2022, https://sustainablefisheries-uw.org/simp-seafood-import-monitoring-program/.

²²⁹ Ibid.; National Fisheries Institute, "The Modern-Day Lawn Dart: NOAA's Seafood Import Monitoring Program," https://aboutseafood.com/the-modern-day-lawn-dart-noaas-seafood-import-monitoring-program/.

²³⁰ Catherine S. Longo et al., "A Perspective on the Role of Eco-Certification in Eliminating Illegal, Unreported, and Unregulated Fishing," *Frontiers in Ecology and Evolution*, vol. 9 (2021), 637228, pp. 1-14; and Donovan, "Role of Corporations."

What Are Shipriders?

Some maritime law enforcement agreements include shiprider provisions that authorize a law enforcement official of one party to embark on a law enforcement vessel or aircraft of the other party and exercise certain authorities. An agreement that includes a shiprider provision is commonly referred to as a *shiprider agreement*. U.S. shiprider agreements are designed to allow U.S. law enforcement officials to assist partner nations in combatting various illicit maritime activity, such as IUU fishing and trafficking in narcotic drugs and psychotropic substances. In general, U.S. bilateral shiprider agreements allow maritime law enforcement officers of the partner nation to embark on warships and other vessels (and/or aircraft) of the U.S. government. The presence of a shiprider on board a U.S. government vessel allows the vessel to enforce the laws and regulations of the partner nation, including the observation and investigation (i.e., board and search) of suspect vessels, within the partner nation's designated territorial sea or EEZ. Certain shiprider agreements also allow U.S. government vessels with embarked shipriders to pursue flag ships of the party on the high seas.

Not all U.S. shiprider agreements include counter-IUU fishing provisions. One priority of the IWG on IUU Fishing is for the U.S. government to establish new bilateral shiprider agreements that have counter-IUU fishing provisions with countries located within priority regions and to add counter-IUU fishing provisions to existing shiprider agreements.²³¹ The United States has entered into bilateral shiprider agreements to address IUU fishing with several nations, including Cook Islands,²³² Côte d'Ivoire,²³³ Ecuador,²³⁴ Fiji,²³⁵ Gambia,²³⁶ Kiribati,²³⁷ Micronesia,²³⁸ Nauru,²³⁹

²³¹ The Maritime SAFE Act directs selected federal officials to "exercise existing shiprider agreements and to enter into and implement new shiprider agreements" (16 U.S.C. §8013(b)(2)).

²³² Agreement Between the Government of the United States of America and the Government of the Cook Islands Concerning Cooperation in Joint Maritime Surveillance Operations (T.I.A.S. 08-725), signed July 25, 2008.

²³³ Agreement Between the United States of America and the Republic of Cote D'Ivoire Concerning Counter Illicit Transnational Maritime Activity Operations (T.I.A.S. 24-206), signed February 6, 2024.

²³⁴ Agreement Between the United States of America and the Republic of Ecuador Concerning Counter Illicit Transnational Maritime Activity Operations (T.I.A.S. 24-223), signed September 27, 2023.

²³⁵ Agreement Between the Government of the Republic of Fiji and the Government of the United States of America Concerning Counter Illicit Transnational Maritime Activity Operations (T.I.A.S. 18-1112), signed November 12, 2018.

²³⁶ Agreement Between the Government of the United States of America and the Government of the Republic of the Gambia Concerning Cooperation to Suppress Illicit Transnational Maritime Activity (T.I.A.S. 11-1010), signed October 10, 2011.

²³⁷ Agreement Between the Government of the United States of America and the Government of the Republic of Kiribati Concerning Cooperation in Joint Maritime Surveillance Operations (T.I.A.S. 08-1124), signed November 24, 2008.

²³⁸ Agreement Between the Government of the United States of America and the Government of the Federated States of Micronesia Concerning Cooperative Shiprider Agreement (T.I.A.S. 08-514), signed May 14, 2008; and Agreement Between the Government of the United States of America and the Government of the Federated States of Micronesia Concerning Operational Cooperation to Suppress Illicit Transnational Maritime Activity (T.I.A.S. 14-303), signed March 3, 2014.

²³⁹ Agreement Between the Government of the United States of America and the Government of the Republic of Nauru Concerning Operational Cooperation to Suppress Illicit Transnational Maritime Activity (T.I.A.S. 11-908), signed September 8, 2011.

Palau,²⁴⁰ Panama,²⁴¹ Papua New Guinea,²⁴² Republic of Marshall Islands,²⁴³ Samoa,²⁴⁴ Senegal,²⁴⁵ Seychelles,²⁴⁶ Sierra Leone,²⁴⁷ Tonga,²⁴⁸ Tuvalu,²⁴⁹ and Vanuatu.²⁵⁰ Congress may examine whether sufficient support and resources have been dedicated to enforcement efforts to counter IUU fishing activities, such as capacity-building assistance to coastal nations and joint efforts, including shiprider agreements.

²⁴⁵ Agreement Between the Government of the United States of America and the Government of the Republic of Senegal Concerning Operational Cooperation to Suppress Illicit Transnational Maritime Activity (T.I.A.S. 11-429), signed April 29, 2011.

²⁴⁶ Agreement Between the Government of the United States of America and the Government of the Republic of Seychelles Concerning Counter Illicit Transnational Maritime Activity Operations (T.I.A.S. 21-727), signed July 27, 2021.

²⁴⁷ The Sierra Leone agreement with the United States is an *executive agreement*. Agreement Between the Government of the United States of America and the Government of the Republic of Sierra Leone Concerning Cooperation to Suppress Illicit Transnational Maritime Activity, signed June 26, 2009, https://2009-2017.state.gov/documents/ organization/153587.pdf. This agreement is an *executive agreement*. Executive agreements are entered into without the advice and consent of the U.S. Senate, but are still binding on the parties under international law. See U.S. Senate, "About Treaties," https://www.senate.gov/about/powers-procedures/treaties.htm.

²⁴⁸ Agreement Between the Government of the United States of America and the Government of the Kingdom of Tonga Concerning Cooperation in Joint Maritime Surveillance Operations, signed August 24, 2009, https://2009-2017.state.gov/documents/organization/153588.pdf; and U.S. Department of State, "The United States-Tonga Relationship," July 24, 2023, https://www.state.gov/the-united-states-tonga-relationship/. This agreement is an *executive agreement*. See footnote 247.

²⁴⁰ Agreement Between the Government of the United States of America and the Government of the Republic of Palau Concerning Cooperation to Suppress Illicit Activity at Sea (T.I.A.S. 08-320), signed March 20, 2008; Agreement Between the Government of the United States of America and the Government of the Republic of Palau Concerning Operational Cooperation to Suppress Illicit Transnational Maritime Activity (T.I.A.S. 13-0815), signed August 15, 2013; and Stephen Wright, "Palau, United States Expand Maritime Security Arrangements After Chinese Incursions," *BenarNews*, August 30, 2023, https://www.rfa.org/english/news/pacific/palau-us-security-08302023222710.html.

²⁴¹ Supplementary Arrangement Between the Government of the United States of America and the Government of the Republic of Panama to the Arrangement Between the Government of the United States of America and the Government of Panama for Support and Assistance from the United States Coast Guard for the National Maritime Service of the Ministry of Government and Justice (T.I.A.S. 02-205.1), signed February 5, 2002.

²⁴² Agreement Between the United States of America and the Independent State of Papua New Guinea Concerning Counter Illicit Transnational Maritime Activity Operations (T.I.A.S. 23-816.1), signed May 22, 2023.

²⁴³ Agreement Between the Government of the United States of America and the Government of the Republic of the Marshall Islands Concerning Cooperation in Maritime Surveillance and Interdiction Activities (T.I.A.S. 08-805), signed August 5, 2008 (amended March 19, 2013).

²⁴⁴ Agreement Between the Government of the United States of America and the Government of the Independent State of Samoa Concerning Operational Cooperation to Suppress Illicit Transnational Maritime Activity (T.I.A.S. 12-602), signed June 2, 2012; and *Maritime Executive*, "Samoa Grants USCG Expanded Enforcement Powers in its EEZ," April 7, 2024, https://maritime-executive.com/article/samoa-grants-uscg-expanded-enforcement-powers-in-its-eez.

²⁴⁹ Agreement Between the Government of the United States of America and the Government of Tuvalu Concerning Operational Cooperation to Suppress Illicit Transnational Maritime Activity (T.I.A.S. 11-909), signed September 9, 2011; and U.S. Department of State, "U.S. Relations with Tuvalu," June 23, 2022, https://www.state.gov/u-s-relationswith-tuvalu/.

²⁵⁰ Agreement Between the Government of the United States of America and the Government of the Republic of Vanuatu Concerning Counter Illicit Transnational Maritime Activity Operations (T.I.A.S. 16-1031), signed October 31, 2016.

What Technologies Can Be Used to Identify Vessels Suspected of IUU Fishing?

Earth's vast ocean area enables some fishing fleets to conduct IUU fishing activity unnoticed and presents law enforcement challenges. Technology can play an important role in patrolling the sea for vessels suspected of IUU fishing. Both vessel monitoring systems (VMS) and automatic identification systems (AIS) are widely used to monitor vessel location and movements from remote locations.²⁵¹ AIS and VMS are distinct systems that are not interoperable or compatible but may be used in conjunction (**Table 3**).²⁵² These systems employ electronic transmitters that can be installed on vessels and send information from ship to ship, ship to shore, or ship to satellite. Data are then relayed to enforcement personnel who monitor information such as vessel identification, date, time, and location. Both VMS and AIS can support law enforcement by allowing patrols to focus on areas with the highest potential for fishing violations, although some stakeholders find AIS to be the better tool for monitoring fishing.²⁵³ The efficacy of these systems depends on whether they are used consistently and provide information on a real-time basis. Efficacy also depends on whether data such as vessel name, class, flag operator, and owner are available and matched to vessel databases.

Monitoring fishing vessels with AIS to detect illegal fishers may be limited because operators can turn off their systems and "go dark." Some research has found that vessels most often go dark while fishing next to EEZs with contested boundaries, while fishing in EEZs with limited management oversight, and during the transfer of fish between fishing vessels and refrigerated cargo vessels.²⁵⁴

	Automatic Identification System (AIS)	Vessel Monitoring System (VMS)
Operational Mode	Provides vessel navigation information (including vessel's identity, type, course, speed, and other safety-related information) in real time, via ship-to-ship, ship-to-shore, ship-to-aircraft, or ship-to-satellite communication	Remotely monitors fishing vessel position in relation to regulatory areas and maritime boundaries, via a scheduled or manual broadcast to satellite receivers and authorized data recipients
Temporal Resolution	Signal transmitted every few seconds	Signal typically transmitted at least once per hour
Approximate Cost	\$750-\$3,500, no associated fees	\$4,000, plus associated fees throughout the vessel's lifetime
Service Provider	Open, nonproprietary	Closed, proprietary protocols
Tamper-Proof	No	Yes

Table 3. Vessel Tracking Instruments

²⁵¹ Global Fishing Watch, "What Is AIS?," https://globalfishingwatch.org/faqs/what-is-ais/; Oceana, "AIS: What Is It?," https://usa.oceana.org/wp-content/uploads/sites/4/4046/oceana_ais_fin_all_hr.pdf (hereinafter Oceana "AIS: What Is It?").

²⁵² Oceana, "Automatic Identification System," https://usa.oceana.org/wp-content/uploads/sites/4/2023/07/Fact-Sheet-on-AIS-Vessel-Tracking-2023.pdf. Hereinafter Oceana, "Automatic Identification System."

²⁵³ Ibid. Compared with a vessel monitoring system, an automatic identification system has a higher temporal resolution for transmitting signals (i.e., near real-time reporting), a lower cost, and its data are publicly available (see **Table 3**).

²⁵⁴ NOAA, NMFS, "Learning More About 'Dark' Fishing Vessels' Activities at Sea," November, 2, 2022, https://www.fisheries.noaa.gov/feature-story/learning-more-about-dark-fishing-vessels-activities-sea.

	Automatic Identification System (AIS)	Vessel Monitoring System (VMS)
Applicability	Required—per SOLAS V/19 or 33 C.F.R. §164.46—commercial fishing vessels 65 feet long or greater	Required—by NOAA via regulations—for vessels participating in fishing for certain fishery species
Required on Vessels over 65 feet long	Yes	Requirements for VMS use are fishery-specific
Approximate Number of U.S. Vessels	More than 40,000	More than 4,000

Sources: Congressional Research Service, modified from U.S. Coast Guard, "How Does AIS Compare and Contrast with VMS," https://www.navcen.uscg.gov/sites/default/files/pdf/AIS/

Q_AIS_vs_VMS_Comparison_2016.pdf; Oceana, "Automatic Identification System," https://usa.oceana.org/wpcontent/uploads/sites/4/2023/07/Fact-Sheet-on-AIS-Vessel-Tracking-2023.pdf, p. 4; 33 C.F.R. §164.46; 50 C.F.R. §§660.1500-600.1516; National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), "Regional Vessel Monitoring Information," https://www.fisheries.noaa.gov/national/enforcement/ regional-vessel-monitoring-information; and NOAA, NMFS, "Enforcement: Vessel Monitoring," https://www.fisheries.noaa.gov/topic/enforcement/vessel-monitoring.

Notes: SOLAS V/19 = Chapter V, Regulation 19, of the International Convention for Safety of Life at Sea. NMFS reports that the U.S. VMS fleet is the largest national VMS fleet in the world.

International and regional organizations, as well as some countries, require the use of AIS on certain vessels. The International Maritime Organization requires large ships, including many commercial fishing vessels, to broadcast their position with AIS.²⁵⁵ Some RFMOs require the use of VMS, and are considering the utility of AIS, for vessels fishing in their convention areas.²⁵⁶ The United States requires its commercial fishing vessels over 65 feet long to have an AIS while operating in U.S. waters.²⁵⁷ Some stakeholders have proposed that the United States apply this requirement to fishing vessels over 49 feet long, which would align with the European Union's requirement for its fishing vessels.²⁵⁸

Some stakeholders are interested in applying machine learning to satellite-based data to improve enforcement patrols for IUU fishing. As part of a worldwide competition, the Defense Innovation Unit, a civilian organization within DOD, and Global Fish Watch solicited developers to apply machine learning to satellite-based synthetic aperture radar (SAR) data to detect vessels that had gone dark.²⁵⁹ SAR technology can penetrate clouds and can be used at night to identify the location and movement of dark vessels. By 2023, the U.S. government had operationalized the machine learning algorithms developed during the competition within the USCG, NOAA, and the U.S. Navy and integrated the model outputs into *SeaVision*.²⁶⁰ SeaVision, a web-based encrypted sharing network of maritime domain awareness information, uses nonclassified vessel AIS data to

²⁵⁵ International Maritime Organization, "AIS Transponders," https://www.imo.org/en/OurWork/Safety/Pages/AIS.aspx.

²⁵⁶ Holly Koehler, *RFMO Vessel Monitoring Systems: A Comparative Analysis to Identify Best Practices*, International Seafood Sustainability Foundation, ISSF Technical Report 2022-06, March 2022.

²⁵⁷ 33 C.F.R. §164.46(b)(1)(i).

²⁵⁸ For example, see Oceana, "AIS: What Is It?"; and Center for the Blue Economy, *Turning the Tide: Biden Administration Leadership on Ocean Climate Action & Recommended Next Steps*, June 2024, p. 29.

²⁵⁹ Defense Innovation Unit, "U.S. Government and Nonprofit Organization Host Prize Competition to Leverage the Latest Technology to Detect and Defeat Illegal Fishing," July 22, 2021, https://www.diu.mil/latest/us-government-and-nonprofit-organization-host-prize-competition-xview3. The USCG, NOAA, and the National Maritime Intelligence-Integration Office also supported the solicitation.

²⁶⁰ Alex Appel, "AI as a Weapon to Defend the Seas from Illegal Fishing," *Alaska Business*, November 13, 2023, https://www.akbizmag.com/industry/fisheries/illegal-fishing-ai/. For more information about SeaVision, see the "What Actions Are U.S. Agencies Taking to Address IUU Fishing?" section of this report.

display current and past vessel movement within the U.S. EEZ, within the EEZs of partner countries, and on the high seas on a live map.²⁶¹ SeaVision data may be analyzed to identify illegal fishing activity, among other vessel information.

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²⁶¹ SeaVision was developed by the Department of Transportation's Volpe Center and the U.S. Navy. U.S. Department of Transportation, Volpe Center, "SeaVision," https://info.seavision.volpe.dot.gov/.