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National Seafood Strategy Implementation Plan

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September 2024

The [National Seafood Strategy](#) outlines NOAA Fisheries' direction over the next 5 years for supporting a thriving domestic U.S. seafood economy and enhancing the resilience of the seafood sector in the face of climate change and other stressors. Our vision is to ensure that:

- U.S. seafood continues to be harvested and produced sustainably.
- The U.S. seafood sector, which includes the full range of harvesting and processing sectors and seafood communities, contributes to the nation's climate-ready food production, to food security, and to meeting critical domestic nutritional needs.
- U.S. seafood production increases to support jobs, the economy, and the competitiveness of the U.S. seafood sector.
- Supply chains and infrastructure are modernized with more value-added activity in the United States.
- Opportunities are expanded in order to build a diverse and growing seafood workforce.

Overview

The National Seafood Strategy and this implementation plan focus on the commercial fisheries and aquaculture components of NOAA Fisheries' work to sustainably manage marine fisheries and produce seafood responsibly. Further, they are designed to be complementary to and work in conjunction with other NOAA Fisheries core work (e.g., scientific surveys, assessments, and support to the regional fishery management councils and interstate marine fisheries commissions) and other policies and strategies that describe how we will support U.S. fisheries in the face of climate change, market disruptions, and new ocean uses.

The plan guides the agency's industry services in support of seafood production and community resilience. It identifies activities NOAA Fisheries can take or is taking to help address important national issues such as: the resilience of coastal fishing and aquaculture communities to the effects of climate change and to unanticipated challenges such as COVID-19 market disruptions; the financial viability of the seafood industry through extreme events; the effects and opportunities of international trade; and the importance of seafood to domestic nutrition, food equity, food security, subsistence fishing, cultural traditions, and tribal treaty rights.

The actions listed in this plan emerged from the agency's extensive consultation with participants in the U.S. seafood industry and interested constituents over the past 2 years. More than 150 individual comments were received during the public comment period on the draft National Seafood Strategy, many of them containing action recommendations. In addition, the agency held formal listening sessions and other meetings with state agencies, tribes and other indigenous communities, and partners, as well as industry members and associations, councils and commissions, and other constituents to gather recommendations on action items. The majority of actions are those that are possible given current budget resources and staffing capacity. We also included some aspirational activities recommended by partners and constituents to highlight important areas of future growth, should additional resources become available.



Actions to Implement the National Seafood Strategy

To implement the National Seafood Strategy, NOAA Fisheries' collaborations and partnerships will be critical. We will partner with state, territorial, local, and other federal agencies, tribes and other indigenous groups, the Sea Grant network, councils and commissions, academia, non-government organizations, fishermen, seafood farmers, and other partners and constituents to address the challenges facing the seafood sector. A small number of cross-cutting "pilot initiatives" will be executed collaboratively.

The actions in this plan are classified as follows:

- **Ongoing** actions are already being undertaken.
- **New** actions can be accomplished without additional funds.
- **Aspirational** actions will require additional new funds or additional staff time to accomplish.

Benefits of conducting each action are outlined below the action. In addition, NOAA Fisheries will identify milestones and metrics, track progress on implementation of each action, and report annually on accomplishments.



GOAL 1: Maintain or Increase Sustainable Wild-Capture Production

Objective 1.A. Fisheries Science: Provide the natural and social science necessary for fisheries management to adapt under changing ecosystem dynamics.

Action 1.A.1 Assess effect of climate change on regional fisheries harvest scenarios, including economic and social science data/impacts. Examples:

- Regional fishery scenario modeling with the regional councils and within the Climate and Ecosystems Fisheries Initiative. (FY 2024 new action over next 3 years.)
- Science to support the development of unutilized or underutilized species that may be more abundant due to climate change (aspirational).

Benefits: Increased capacity to plan for, adapt to, and mitigate effects of climate changes.

Action 1.A.2 Conduct economic and social analyses and enhance existing socio-economic tools (ongoing, FY24 new action). For examples see Action 3.B.4 below.

Benefits: Increased understanding of the impacts of fisheries regulations and changing climate (e.g., climate toolboxes and forecasts) on fisheries, the seafood system, and communities.

Action 1.A.3 Conduct analyses, research, and regulatory review on the impacts to scientific surveys, fisheries, fishing communities, and habitat from offshore wind development and other potentially competing or new ocean uses (ongoing with new actions recently added).

Benefits: Increased capacity to minimize or mitigate impacts of new or potentially competing ocean uses and to support responsible development of offshore wind.

Objective 1.B. Fisheries Management: Optimize and diversify sustainable seafood production and fishing opportunities while ensuring the long-term sustainability of fisheries through effective and efficient management. Identify and analyze ways to support the commercial fishing industry and fishing communities in their efforts to adapt to climate change and thrive in a changing ocean economy.

Note that other strategies, documents, and plans describe the agency's ongoing day-to-day fisheries management work (e.g., surveys, fisheries monitoring, stock assessments, and bycatch science that inform the allocation of wild catch through the regional fishery management councils). The National Seafood Strategy Implementation Plan focuses on other types of studies and analyses (e.g., socio-economic), as well as regional plans that help to inform these fishery management actions and industry business decisions.

Action 1.B.1 Implement Climate Science Regional Action Plans (ongoing).

Benefits: Increased capacity to prepare for and respond to rapidly changing ocean conditions.

Action 1.B.2 Identify and analyze management actions and potential revisions to selected national standards guidelines under the Magnuson-Stevens Fishery Conservation and Management Act that could increase opportunities in commercial fishing (ongoing and new).

Benefits: Increased opportunities to improve the resilience of fisheries and further support agency equity

and environmental justice goals; for example, options to facilitate new entrants and equitable distribution of fishing catch shares.

Action 1.B.3 Analyze economic feasibility and impacts of options for industry adaptations to climate change, such as changes in target species, gear, and vessels (ongoing with many aspirational actions).

Benefits: Increased management and industry flexibility in addressing the harvest and socio-economic effects of climate change.

Objective 1.C. Habitat Conservation: Protect and restore habitat important to our nation's fisheries and support resilient coastal communities.

Action 1.C.1 Award grants to states, territories, tribes and other indigenous communities, industry, and others to fund projects that sustain fishing habitat and help to protect fishing infrastructure affected by changing climate (ongoing).

Benefits: Restoration of access to healthy habitat for fish supports fisheries and protected species, strengthening the resilience of coastal ecosystems and working waterfronts to changes in environmental conditions.



GOAL 2: Increase Sustainable U.S. Aquaculture Production

Objective 2.A. Management and Regulatory Efficiency: Accelerate progress on implementing an efficient, predictable, timely, and science-based regulatory framework for marine aquaculture.

Action 2.A.1 Provide expertise and coordination for prospective aquaculture operations that are navigating permitting and environmental compliance in federal, state, and territorial waters (ongoing).

Benefits: Enhanced transparency and predictability for regulatory actions and interagency coordination on siting, environmental compliance, and permitting of aquaculture projects in state, territorial, and federal waters.

Action 2.A.2 Lead the identification of Aquaculture Opportunity Area in partnership with permitting agencies (ongoing).

Objective 2.B. Aquaculture Science: Provide science-based advice and tools to minimize potential negative effects of marine aquaculture operations on the environment and to support sustainable industry development.

Action 2.B.1 Conduct studies and develop science-based information and tools to support regulatory and management decisions (ongoing, aspirational).

Benefits: Increased capacity for regulators and industry to evaluate the effects of aquaculture operations on water quality, genetic interactions, protected species and fish habitat, and aquatic animal health, and more efficient decision-making for siting, permitting, and monitoring aquaculture ventures.

Action 2.B.2 Conduct studies on marine aquaculture interactions with protected species and essential fish habitat (e.g., gear types/modifications) (ongoing).

Benefits: Increased flexibility in activities to mitigate interactions with protected species or submerged aquatic vegetation, such as gear designs and tools to mitigate marine mammal entanglement or to deter herring spawning on kelp farms; reduced environmental impacts of aquaculture operations.

Action 2.B.3 Establish oyster breeding programs on the East and West coasts and the coast of Alaska in collaboration with USDA (FY24 new actions) and on the coast of the Gulf of Mexico (FY24 new actions and aspirational actions).

Benefits: The production of oysters that are better adapted to regional growing conditions and more resilient to a changing climate.

Action 2.B.4 Refine animal husbandry methods for selected marine finfish, shellfish, and seaweed species at NOAA Fisheries labs and in association with National Sea Grant College Program, universities, and other partners to bring these species to commercial readiness (ongoing).

Benefits: Support for the technical feasibility of rearing marine species in commercial aquaculture settings.

Action 2.B.5 Examine climate change effects on marine aquaculture and the potential for marine aquaculture to mitigate certain climate change impacts (FY24 new action).

Benefits: Enhanced climate-resilient development of aquaculture.



GOAL 3: Foster Access to Domestic and Global Markets for the U.S. Seafood Industry

Objective 3.A. Communication and Promotion: Increase public awareness of the availability, sustainability, and nutritional value of all U.S. seafood

Action 3.A.1 Develop and amplify national and regional news and seafood stories on U.S. seafood sustainability through web stories, podcasts, videos, and social media (ongoing and aspirational).

Action 3.A.2 Strengthen NOAA Fisheries' coordination of seafood communications, outreach, and engagement with internal and external agency partners (ongoing and aspirational). For example, stories about fishing industry innovations and seafood research.

Benefits: Increased public understanding of the U.S. seafood industry, science, and management.

Action 3.A.3 Maintain FishWatch (Sustainable Seafood topic page) and Stock SMART (Stock Status, Management, Assessment, and Resource Trends web tool) and collaborate with partners to amplify the resources (ongoing and aspirational).

Benefits: Increased consumer confidence and availability of reliable science-based seafood sustainability information.

Objective 3.B. U.S. Market Development: Work with federal partners and others to identify and develop U.S. seafood markets and put more U.S. seafood on U.S. plates, particularly for underserved communities.

Action 3.B.1 Provide and expand technical support to USDA for purchases of U.S. seafood for food assistance program, as well as inspection/certification of the

seafood (by the Seafood Inspection Program) (ongoing and aspirational).

Benefits: Increased consumption of domestic seafood and critically needed revenue to U.S. seafood producers.

Action 3.B.2 Provide Hazard Analysis and Critical Control Point certification to U.S. seafood products for U.S. buyers through the Seafood Inspection Program (ongoing).

Benefits: Improved retailer and consumer confidence in the safety of U.S.-produced seafood.

Action 3.B.3 Provide funding for U.S. seafood promotion and marketing via the Saltonstall-Kennedy (SK) Grant Program (ongoing).

Benefits: Facilitation of seafood constituents' ability to market seafood, build capacity, and otherwise support U.S. seafood products.

Action 3.B.4 Conduct socio-economic and market analyses, including in collaboration with universities and other federal agencies (ongoing with new actions recently added). Examples:

- Develop regional economic impact analyses (e.g., North Pacific fisheries toolbox).
- Conduct economic cost and earnings surveys of various fisheries, market demand models, inventory of seafood infrastructure, and labor needs.
- Produce *Fisheries Economics of the United States* model estimates of impact of U.S. fishing and aquaculture.
- Report fishing community social vulnerability indexes and maps.
- Characterize demographics of seafood labor force (e.g., fishing crew, process plant workers) and underserved communities.
- Conduct socio-economic analyses to identify impacts of climate change on food security and food access in underserved communities.

Benefits: Increased support for U.S. seafood businesses and coastal communities in making resource and investment decisions; additional information about where U.S.-produced seafood goes in U.S. markets, and who has access to that seafood; support for planning for and adapting to changing climate and market conditions, and support for industry members applying for economic development and other grants.

Actions 3.B.5 Report U.S. seafood production and price data. Examples:

- Refine *Fisheries of the United States and Fisheries Economics of the United States* reports and databases and expand marine aquaculture information (ongoing and aspirational).
- Provide federal waters fisheries landings and dockside prices monthly or more frequently (aspirational).
- Continue to improve accuracy and report state and federal aquaculture production and price data in coordination with state agencies, USDA, and the interstate marine fisheries commissions (ongoing with new actions recently added).

Benefits: Support establishment of U.S. reference prices for U.S.-produced seafood and more timely data available to wholesalers, retailers, and financial institutions. Potentially broaden the financial and insurance products/opportunities available to the industry; a more accurate picture of U.S. seafood production than currently available.

Action 3.B.6 Expand regional socio-economic dashboards (e.g., Alaska Fisheries Science Center dashboard) (ongoing and aspirational).

Benefits: The dashboards will make NOAA Fisheries data, reports, and socio-economic analyses more readily available for public use.

Objective 3.C. Fair Trade: Promote fair seafood trade by combating illegal, unreported, and unregulated (IUU) fishing and related harmful fishing practices around the world and by expanding access to foreign markets for U.S. seafood.

Action 3.C.1 Combat IUU fishing and associated issues through (1) multilateral cooperation, including enforcement and training; (2) implementation of programs such as those included in the High Seas Driftnet Fishing Moratorium Protection Act and the Maritime Security and Fisheries Enforcement Act; and (3) improving the Seafood Import Monitoring Program's effectiveness (ongoing).

Benefits: Strengthened fair trade for U.S. seafood producers and reduced imports of products resulting from IUU fishing and other harmful fishing practices.

Action 3.C.2 Facilitate export market access via export certification services through the Seafood Inspection Program (ongoing).

Action 3.C.3 Support export market access with a NOAA trade representative in Brussels, and technical support to the International Trade Administration (ITA) and USDA's Foreign Agricultural Service in addressing trade barriers and promoting U.S. seafood in foreign markets (ongoing).

Benefits: Enhanced access to and sales in foreign markets for U.S. seafood products.

Action 3.C.5 Conduct economic analyses of seafood trade and serve as a repository for publicly available seafood trade data (aspirational).

Benefits: Enhanced industry ability to make business decisions in the face of seafood trade and market disruptions.

Action 3.C.6 Expand interagency coordination and information sharing, with partner agencies, including the Office of the U.S. Trade Representative (USTR) and ITA, including through an interagency working group (ongoing).

Benefits: Enhanced understanding of the effects of trade policy on the U.S. seafood sector within ITA, USTR, USDA, and other agencies, and promotion of a whole-of-government approach to ensuring fair seafood trade and market access.

Action 3.C.7 Provide enforcement and technical expertise across agencies and promote labor standards in Regional Fisheries Management Organizations and other international organizations.

Benefits: Increased awareness of labor issues in fisheries both nationally and internationally and enhanced capacity for enforcement of existing laws or agreements regarding forced labor, labor safety, and working conditions for labor.



GOAL 4: Strengthen the Entire U.S. Seafood Sector

Objective 4.A. Seafood as a Vital Part of the Blue Economy: Support U.S. commercial fishing, marine aquaculture, and the rest of the associated seafood sector and communities to adapt and thrive in a changing ocean economy.

Action 4.A.1 Fishery Finance Program: Provide long-term financing and explore alternative finance methods for seafood infrastructure modernization, vessels and production facilities, and for new entrants into wild-capture fisheries and aquaculture industries (ongoing and aspirational).

Benefits: Broadened range of financial products available to U.S. seafood businesses.

Action 4.A.2 Improve the efficiency of the distribution process for fisheries disaster assistance to states, territories, and tribes when Congress appropriates funds for fisheries disasters (ongoing).

Benefits: Timely assistance to impacted entities in the face of fisheries disasters.

Action 4.A.3 Conduct seafood product safety analyses and research at NOAA Fisheries laboratories (especially the National Seafood Inspection Laboratory and the Northwest Fisheries Science Center) including risk analyses, screening for mislabeled species, testing for banned chemicals and seafood contamination events such as oil spills, and analyses for import and export documentation (ongoing).

Benefits: Provide seafood safety information critical to fisheries management and human health regulatory compliance as well as to seafood quality assurance in the United States.

Objective 4.B. Seafood Infrastructure: Work across federal agencies to modernize and maintain U.S. seafood infrastructure (e.g., vessels, hatcheries, port and dock facilities, processing, storage, and working waterfronts) in order to strengthen and enhance opportunities for coastal seafood communities and regional food networks.

Action 4.B.1 Coordinate with and leverage partnerships with other federal agencies (e.g., Economic Development Administration, USDA, and the Department of Transportation) to finance (loans, bonds, grants) seafood infrastructure, vessel, and processing modernization (aspirational).

Benefits: Expanded grant, loan, and other financial opportunities for industry to use in recapitalizing and modernizing U.S. seafood infrastructure.

Objective 4.C. Workforce Development: Foster a growing and diverse seafood workforce and attract young harvesters and seafood farmers to the sector.

Action 4.C.1 Coordinate with other agencies such as the National Sea Grant College Program, which administers the Young Fisherman’s Development Program and similar grants for aquaculture workforce development (ongoing and aspirational).

Action 4.C.2 Provide funding for habitat restoration–related workforce development of veterans, young adults, and others.

Benefits: Assistance in alleviating labor shortages in the U.S. seafood industry and in replacing an ageing workforce.

Benefits: Increased workforce capacity in fisheries research and habitat restoration in support of resilient communities.

Objective 4.D. Equity and Environmental Justice (EEJ): Improve understanding of barriers to access to seafood, challenges to diversity of opportunity and scale in the seafood industry, and workforce demographics.

In conducting the work identified in this implementation plan, NOAA Fisheries also seeks to further the objectives for achieving equity and environmental justice identified in NOAA Fisheries’ EEJ Strategy. These EEJ objectives will be integrated into actions throughout this implementation plan and thus EEJ is not a separate objective from the others. As such, additional activities are not detailed here. In addition, new relevant activities and associated benefits will be added to this plan in concert with the newly released EEJ regional action plans.

Pilot Initiatives

NOAA Fisheries is building partnerships to implement a small number of cross-cutting pilot initiatives, subject to capacity. Several NOAA Fisheries offices along with other federal, state, territorial, local, tribal and other indigenous groups, industry, university, and NGO partners will participate. Actions listed below may be funded with current resources or be aspirational. Initial examples (with other pilot initiatives to be determined).

Alaska Seafood Resilience

- Analysis of the market, economic, and geopolitical drivers affecting Alaska seafood production and trade, and the effects on Alaska seafood businesses and communities (ongoing).
- Technical assistance to USDA for seafood purchase program (ongoing).
- Certifications facilitating exports of seafood products (ongoing).
- Engagement with other federal agencies (ongoing).

Gulf of Mexico and South Atlantic Shrimp Industry Resilience

- Industry/constituent meetings led by Gulf States Marine Fisheries Commission and the Louisiana and Texas Sea Grant programs (first meeting April 30, 2024).
- Socio-economic analysis (new FY24 action).
- Engagement with other federal agencies (new FY24 action).

Port of Port Orford, Oregon Resilience

Support of the Port's plans to create economic and job opportunities and enhance the availability of nutritious seafood to the region and in an economically distressed community.

- Socio-economic analysis (aspirational).
- Engagement with other federal agencies (new FY24 action).

Pacific and Atlantic Highly Migratory Species (HMS) Fisheries Resilience

Support for expansion of capture, processing, and consumption of HMS in the face of industry contraction and potential movement in species availability due to climate change.

- Exempted fishing permits (ongoing).
- Coordination with councils and industry partners (ongoing and new action for FY24).
- Industry validation of dynamic ocean predictions (new).
- Socio-economic analyses (aspirational).

Related NOAA Fisheries Strategies, Policies, and Guidance

The [National Seafood Strategy](#) and this implementation plan are nested within a suite of strategies, policies, and guidance that directs NOAA Fisheries' activities. The directives are complementary and may overlap in their goals and actions. They are woven together by cross-agency coordination and priority setting. The other directives also address areas outside the purview of the National Seafood Strategy, such as recreational fishing, a comprehensive plan for climate change science and modeling, and protected resources.

[NOAA Fisheries Strategic Plan \(2022–2025\)](#) outlines the agency's goals and key strategies around climate, sustainable fisheries and seafood, protected species, and equity and environmental justice.

[NOAA Fisheries Ecosystem-Based Fisheries Management Policy and Road Map](#) are policy directives that guide NOAA Fisheries' efforts to improve decisions with and for management partners on the trade-offs among and between fisheries (commercial, recreational, ceremonial, and subsistence), aquaculture, protected resources conservation and recovery, biodiversity, habitat management and restoration, and other human values and needs in communities that depend on ocean-related ecosystem services.

[NOAA Climate, Ecosystems, and Fisheries Initiative](#) is a cross-NOAA effort to build the end-to-end, operational ocean modeling and decision support system needed to safeguard the nation's marine resources and resource-dependent communities in a changing climate.

[NOAA Aquaculture Strategic Plan \(2023–2028\)](#) lays out the framework to support a thriving, resilient, and inclusive U.S. aquaculture industry as part of a resilient seafood sector.

[National 5-Year Strategy for Combating Illegal, Unreported, and Unregulated Fishing \(2022–2026\)](#) establishes interagency priorities to combat IUU fishing, curtail the global trade in seafood and seafood products derived from IUU fishing, and promote global maritime security.

[Equity and Environmental Justice Strategy](#) describes the path NOAA Fisheries will take to incorporate equity and environmental justice into the vital services we provide to all communities.

[Guidance and Best Practices for Engaging and Incorporating Indigenous Knowledge in Decision Making](#) provides best practices designed to ensure that the collection and use of traditional ecological knowledge is responsible, effective, and mutually beneficial.

[Saltwater Recreational Fisheries Policy](#) guides NOAA Fisheries in the development and maintenance of enduring and sustainable high-quality saltwater recreational fisheries, which provides food to many participants.

[Human Integrated Ecosystem-Based Fishery Management, Research Strategy \(2021–2025\)](#) identifies NOAA Fisheries' strategies to integrate human and natural science and data.

[National Bycatch Reduction Strategy](#) builds on past and ongoing efforts to reduce bycatch.

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NOAA Fisheries National Seafood Strategy Implementation Plan Writing Team

Lead Writers: Michael Rubino/Senior Advisor for Seafood Strategy and Sarah Shoffler/National Seafood Strategy Coordinator

Coordination Team: Sam Berkowitz/Legislative Affairs, Eleanor Bors/Office of International Affairs, Trade, and Commerce, Erika Carlsen/Office of International Affairs, Trade, and Commerce, Kristine Cherry/Office of Aquaculture, Emily Crigler/Pacific Islands Fisheries Science Center, Laura Diederick/Office of Communications, Ben Fissel/Office of Science and Technology, Lou Forristall/Greater Atlantic Regional Fisheries Office, Perry Gayaldo/Office of Management and Budget, Alanna Greene/Legislative Affairs, Laura Hoberecht/Alaska Fisheries Science Center, Michelle McGregor/Pacific Islands Regional Office, Gabriella McMurtry/Office of Policy, Robert Murphy/Northeast Fisheries Science Center, Wendy Piniak/Office of Protected Resources, Patricia Pinto da Silva/Northeast Fisheries Science Center, Amber Rhodes/West Coast Regional Office, Andrew Richard/Southeast Regional Office, John Walter/Southeast Fisheries Science Center, Ryan Wulff/West Coast Regional Office.

Advisory Group: Danielle Blacklock/Office of Aquaculture, Alexa Cole/Office of International Affairs, Trade, and Commerce, Kelly Denit/Office of Sustainable Fisheries, Robert Foy/Alaska Fisheries Science Center, Doug Lipton/Senior Research Economist, Kate Naughten/Office of Communications, Mike Pentony/Greater Atlantic Regional Fisheries Office.