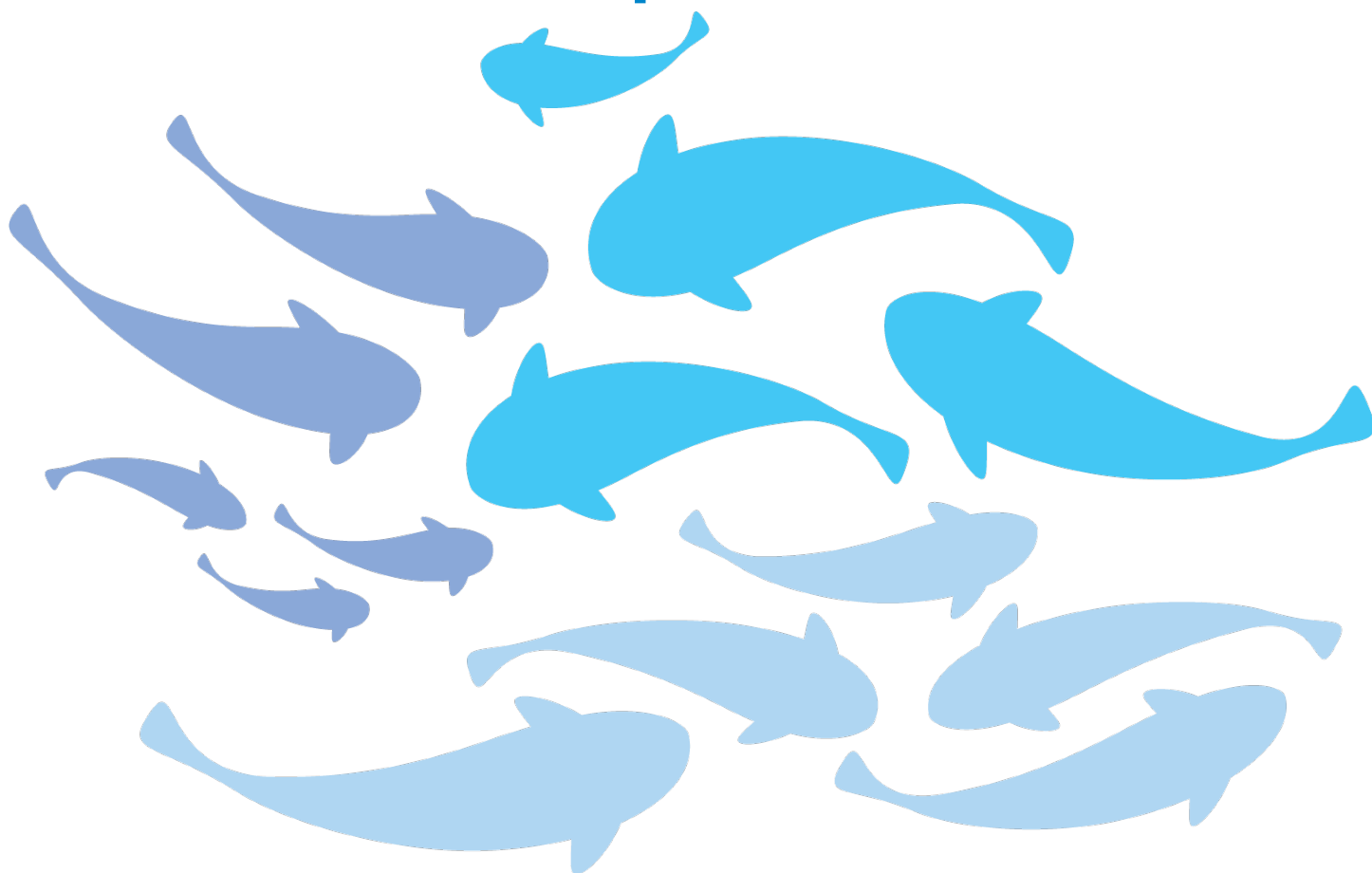




NOAA
FISHERIES

Office of Science and Technology

Equity and Environmental Justice Implementation Plan



Executive Summary

NOAA Fisheries' Office of Science and Technology endeavors to equitably serve the U.S. public in our stewardship of marine and anadromous fisheries, protected resources, habitats, and aquaculture. The Office of Science and Technology's Equity and Environmental Justice (EEJ) Implementation Plan uses guidance set forth in NOAA Fisheries' national [Equity and Environmental Justice Strategy](#) to incorporate and prioritize equity and environmental justice in our ongoing and future activities.

The Office of Science and Technology is committed to incorporating equity and environmental justice into the work we do. The Office of Science and Technology serves constituents interested in or affected by fisheries management and related regulations, research, data and data tools, services, funding, and information. Those constituents include the NOAA Fisheries science centers; headquarters and regional offices; tribal, state, territorial, and local governments, non-governmental organizations; fishermen and fishing organizations (including regional fishery management councils and commissions); academics studying fisheries, teachers and students interested in fisheries; federal agencies; permit holders or applicants; and the general public.

Broadly speaking, the Office of Science and Technology's role in equity and environmental justice efforts and activities will center around coordination, guidance, and funding allocation, including reviewing existing policies and procedures through an equity and environmental justice lens so that they may be refined or revised to achieve more equitable outcomes.

This plan is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees or agents, or any other person.

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List of Acronyms

EEJ: Equity and Environmental Justice

NOAA Fisheries: National Oceanic and Atmospheric Administration's National Marine Fisheries Service

OST: Office of Science and Technology

ST1: Fisheries Statistics Division

ST3: Operation, Management and Information Division

ST4: Assessment and Monitoring Division

ST5: Economics and Social Analysis Division

ST6: Science Information Division

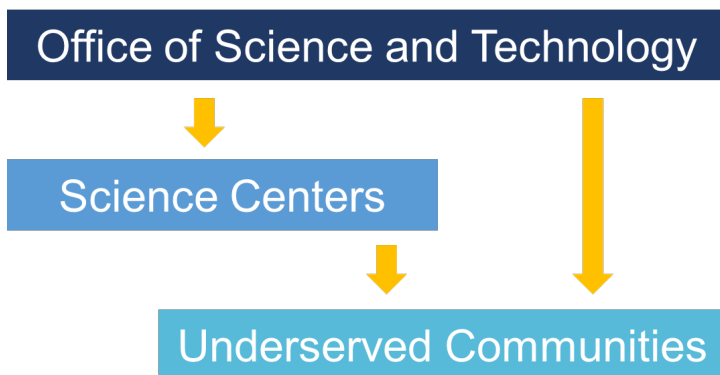
ST7: Marine Ecosystems Division

Introduction

The NOAA Fisheries Office of Science and Technology (OST) advocates and ensures sound scientific basis for NOAA Fisheries science programs and resource conservation and management decisions. We closely coordinate with six NOAA Fisheries science centers: Alaska, Northeast, Northwest, Pacific Islands, Southeast, and Southwest.

As a national NOAA Fisheries program office, OST has an important role to play in the implementation of the national NOAA Fisheries Equity and Environmental Justice Strategy. Research and monitoring is a core equity and environmental justice area identified in the strategy, and OST's role in coordinating and supporting all the regional science centers makes it influential over decision-making on research priorities and regional support. Its coordinating role also means that OST must consider both the direct and indirect pathways of impact it has on NOAA Fisheries' underserved communities (Figure 1).

Figure 1. Office of Science and Technology equity and environmental justice impact pathways



About this Implementation Plan

This plan is a living document that will be updated to ensure it addresses evolving needs of regional science centers in their efforts to better serve underserved communities. The OST Equity and Environmental Justice (EEJ) Working Group will be responsible for updating the implementation plan based on feedback from OST staff, and key partners that rely on OST services, while working to prioritize services for underserved communities. We know it will take time to achieve this implementation plan and are committed to making progress toward it.

The engagement plan for the development of this implementation plan included outreach both within OST and with external partners in NOAA and beyond. The first phase of internal engagement is reflected in this implementation plan, and the next version will include external engagement.

Updates to the OST implementation plan will be done in the first year of implementation (by June 2025), and thereafter will be updated every 5 years, or coinciding with updates to relevant agency strategies. A monitoring system will be developed to support annual EEJ updates in coordination with the national EEJ Working Group and other offices and regions.

Internal OST engagement

Each division of OST has a special role to play in EEJ implementation.. This implementation plan was developed through a series of facilitated meetings with OST staff to identify EEJ goals and actions tailored to each division. It was then refined and further developed by the OST EEJ e Working Group.

External OST engagement

Our main engagement objective going forward is to collaborate with groups both within and external to NOAA to identify new or strengthen existing OST EEJ actions. The EEJ Working Group will set up meetings with these groups to discuss:

1. What role should OST have in coordination of implementation plan metrics across science centers?
2. What methods can be used by the science centers and partners to develop a consistent and coordinated approach to identifying underserved communities?
3. What types of support from OST would be most helpful to assist or guide science centers in achieving EEJ goals and objectives? For example:
 - a. Support in developing EEJ-related outreach materials
 - b. Support for technical applications, such as dynamic decision support tools
4. How can data collected or funded by OST be modified or improved to address EEJ data needs of the science centers, regional offices, or councils?

These groups would include but are not limited to:

NOAA groups

- NOAA Fisheries science centers
- NOAA Chief Economist Office
- NOAA Fisheries Office of Sustainable Fisheries
- Regional recreational coordinators
- NOAA Education Office

External groups

- State entities
- Fisheries Information Networks (FINs): ACCSP, AKFIN, PACFIN
- Academic Institutions
- North American Association of Fisheries Economics, American Fisheries Society, [Citizen Science Association](#) (relevant professional associations)

Equity and Environmental Justice Core Area Implementation and Actions

OST uses the framework of equity and environmental justice core areas outlined in the NOAA Fisheries’ national [Equity and Environmental Justice Strategy](#) to describe the scope of the OST’s EEJ work, and categorize the identified actions. In this section, for each core area we outline our approach, identify the national actions supported in this plan, and list the actions identified in this iteration of plan development. The full table of actions are also available in a [spreadsheet](#).

Empowering Environment

To the extent authorized by applicable law, OST will implement the EEJ core area of Empowering Environment by providing institutional support for staff to engage in EEJ work, and leadership in developing EEJ science across the regions and program offices.

National Strategy Empowering Environment Actions supported: 2, 3, 4, 5, 8

Table 1. Office of Science and Technology Empowering Environment Actions

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
Cross-division (DO lead)	Assist regional science centers with their EEJ engagement and implementation plans, and EEJ actions	Provide indirect support for EEJ implementation by NOAA Fisheries science centers	Utilize regional metrics that have been assisted by OST	Ongoing
ST3	Funding to NOAA Fisheries science centers will incorporate EEJ considerations and direction	Provide resources to support regional EEJ efforts	Number of funding opportunities that had EEJ included	Future plan
Cross-division	Consider aspects of EEJ when making decisions about internal funding allocation through OST division managed programs	Ensure allocation decisions consider the resources needed by teams with a higher proportion of underserved communities in their region	Percent of programs that have EEJ principles within the framework/guidelines used to make funding allocation decisions	Annually and ongoing
ST5	Require measurable EEJ action statements in ST5 Commercial Data Spend Plans and/or any future ST5 request for proposals	Build EEJ actions into project workflows	Number of regional EEJ actions supported by ST5 funds	FY25, then annually
Cross-division (ST3 lead)	Dedicated communications work on EEJ inclusion, with coordination across OST division communication staff	Ensures products are accessible, understandable, and useable by underserved communities	Number of communication staff with EEJ work assigned to them	Ongoing

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
ST3	Prompt supervisors to include EEJ component in performance plans where appropriate	Empower employees to include EEJ into their work and responsibilities.	% of performance plans with EEJ components	FY25, then annually
ST3	Include EEJ in office-wide curriculum development	Spread awareness of EEJ principles and how to implement them	EEJ training developed	Ongoing
Cross-division	Improve percentage of position candidate pool from underserved communities through fellowship and intern programs and outreach to universities/colleges ¹ and local high schools	OST workforce is a reflection of the communities we serve	Number of outreach activities for students of minority serving institutions Number of fellowships and interns from minority serving institutions	Ongoing
Cross-division (DO sponsor, ST3 lead)	Focus on hiring needs for EEJ expertise such as communication, Indigenous knowledge, and social science. Incorporate diversified position classifications to capture well-rounded EEJ expertise	OST has the expertise needed for EEJ science in OST and in the regional science centers, and the OST workforce is a reflection of the communities we serve	Increase in job announcements with EEJ expertise included Increase in staff with EEJ as part of their job description	Ongoing
ST4	National Observer Program: exploring how to engage veterans or other underserved communities can be supported to become observers	Supports job opportunities for underserved communities	Increase in percentage of fisheries observers from underserved communities	FY25-FY30

Policy and Planning

OST will implement the EEJ core area of Policy and Planning by ensuring staff who are involved in the creation and review of agency policies bring an EEJ perspective to the table. For example, OST is the caretaker of the [NMFS Policy Directives science and technology](#) section policies. OST staff also work on teams to develop NOAA Administrative Orders and related guidance addressing data management, information quality, scientific integrity, review and approval of fundamental research communications, among others. By bringing EEJ perspectives to these efforts, Fisheries- and NOAA-level policies can better consider how the resulting policies impact under-resourced science priorities and underserved communities.

National Strategy Policy and Planning Actions supported: 1, 2

Table 2. Office of Science and Technology Policy and Planning Actions

¹ Including programs such as the NOAA Educational Partnership Program with Minority Serving Institutions. <https://www.noaa.gov/office-education/epp-msi>

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
DO, ST3	Consider EEJ implications when developing and revising NOAA Fisheries Policy Directives related to science and technology	Increase EEJ considerations in Policy Directives	Number of Policy Directives that include EEJ considerations	Annually and ongoing
ST3	Add an EEJ prompt to all of our activity plan templates used for the activity planning process	Increase EEJ considerations in activity plans	Number of activity plans that consider EEJ impacts	Annually and ongoing
DO	Chief Data Officer support and coordination for CARE ² approaches to data sharing and develop data governance requirements	Increase data availability, increase collaboration with, and accountability to indigenous communities	Guidance development	Annually and ongoing
ST7	View the development and implementation of Scientific Integrity and related policies and guidance through a diversity of perspectives	Ensure policies consider the cultural similarities and differences between the variety of scientific disciplines and practice in our scientific community, especially those that are traditionally under-resourced	Number of policies that consider EEJ impacts	Future plan

Research and Monitoring

OST will implement the EEJ core area of Research and Monitoring by working with and coordinating all regional science centers, providing guidance on EEJ research priorities, and supporting EEJ science, which includes identification of underserved communities, understanding the impact of fisheries management on them, and the science of communication with them. The role of OST will be to identify science expertise and resources needed to support EEJ science within all NOAA Fisheries regions and program offices. It also includes the adoption of open science practices and, where possible, making metadata data, analyses, and underlying model code available to internal and external groups that may extend the use of information to address underserved communities.

National Strategy Research and Monitoring Actions supported: 1, 2, 3, 4, 5, 8, 9, 11

Table 3. Office of Science and Technology Research and Monitoring Actions

² Collective benefit, Authority to control, Responsibility, Ethics

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
ST5	Provide opportunities for Fisheries staff who are interested in or currently running citizen science projects to learn about tools that can help address diversity, equity, inclusion, and environmental justice questions	Increased number of staff with the ability to support environmental justice goals through new and existing citizen science projects	Number and types of outreach, learning and training opportunities provided to staff each year.	FY24-FY27 (matching the NOAA Citizen Science Action Plan)
ST4, ST3	Work with regions to improve coordination and communication with tribal and territorial liaisons to identify information needs related to fishery-independent survey activities	Foster equity in development, accessibility, and sharing of tools	Feedback received and documented from underserved communities on fishery-independent survey activities	Ongoing
ST4, ST3	Evaluate various national strategies, initiatives, and working groups and better engage partners, product users, and the public in the strategic visioning process	Better science through diverse perspectives	Number of projects that include public engagement (including underserved communities) in the visioning processes	Ongoing
ST7, ST5, ST1, ST4	Promote information exchange with tribal and Indigenous communities and subsistence fishers, for example in the Marine Scientific Research review process in regions having the potential for impacts to subsistence harvests	Foster equity in development, accessibility, and sharing of tools	Number of research or process reviews that include tribal, Indigenous, and subsistence fisheries input	Future
ST7	Embed co-development, starting with project development, between science, management, and impacted communities in our work	Ensure a diversity of people engaged and ideas, including from underserved communities, are brought to the table	Number of projects that are co-developed	Ongoing

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
ST5	Develop frameworks (qualitative and/or quantitative) to allow consideration of underserved communities in ST5 national products. For example create indicators for the Community Environmental Justice Explorer (CEJE) that include the territories	Underserved communities included in ST5 national products	U.S. territories included in CEJE tool Underserved communities highlighted in Fisheries Economics of the United States	FY24-FY25
ST5	Develop region- and community-specific fact sheets from national ST5 products	Amplify underserved communities' roles and connections to fisheries	Number of fact sheets produced	FY24-FY25
ST5	Investigate how to reach underserved communities for developing a survey sample frame in recreational fisheries	More inclusive and representative data sets and results for all aspects of recreational fishing	Number of surveys that include underserved populations	Future
ST5	Investigate data from marine recreational use survey to inform and/or identify gaps about issues of access and use of marine resources by underserved communities	Amplify underserved communities' roles, use, access, and possibly expectations related to using marine resources for recreational activities	Report written	Future
ST4	Develop frameworks for prioritizing resources that incorporate EEJ-relevant metrics (i.e., use variables other than economic impact to prioritize resources)	Improve capacity for EEJ science	Number of sustained data collections and resource assessments in under-resourced science	FY25
ST4, ST7, ST5	Coordinate with regional social scientists to develop EEJ-relevant social indicators for potential inclusion in OST products such as Ecosystem and Socioeconomic Profiles and Ecosystem Status Reports	Improve capacity for EEJ science	Number of Ecosystem and Socioeconomic Profiles and other reports shared with fishery management councils that include EEJ indicators	FY25

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
ST7	Support regional Integrated Ecosystem Assessment science teams that consider people to be part of ecosystems that need to be considered in management. Communicate reciprocal impacts between humans and ecosystems	Provide a framework and interdisciplinary approach to engage impacted communities and integrate local and Indigenous knowledge into the management process	Development of framework	Annually and ongoing
ST5	Support to Office of Sustainable Fisheries to develop response to National Academy of Sciences report on equitable distribution of benefits	In collaboration with OSF to develop guidance to fishery management councils on methods and data needed to evaluate distributional effects on underserved communities	Best practices guidance document published	FY24-FY25
ST7	Museum-based exhibits; explicitly try to include cultural aspects into exhibit design	Indigenous knowledge represented	Number of exhibits that include cultural and Indigenous knowledge	Annually and ongoing
ST4	National Cooperative Research Program guidance supporting research in underserved communities to strengthen diverse partnerships	Improve cooperative research with underserved communities	Guidance development	Annually and ongoing
ST7	Promote accessibility of climate-ready fisheries forecasting tools and services for the international community, and particularly developing nations	Extend outcomes of NOAA's Climate, Ecosystems, and Fisheries Initiative to include international communities	Programs engaged under the SUsustainability, Predictability and REsilience of Marine Ecosystems (SUPREME) Program, under the United Nations Decade of Ocean Science for Sustainable Development initiative	FY24-FY30 (matching UN Decade)
ST4	Develop strategies for regular and sustainable data collections in underserved regions (e.g., U.S. island territories and commonwealths)	Improve equity for U.S. island territory and commonwealth science	Number of sustained data collections in underserved regions	FY25, ongoing
ST1, ST7	Embrace Open Science methodologies and support its implementation	Make metadata, data, analyses, and underlying model code, etc. available to internal and external groups that may extend the use of information to address underserved communities	Number of regions that have implemented open science methods	FY25, ongoing

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
ST4, ST3	Communication requirement to report to underserved communities about the research that has been done	Make research accessible to underserved communities	Number of research projects that include reporting as part of the research process	Ongoing
OST EEJ WG	Compile and synthesize NOAA Fisheries Research and Monitoring Actions from all other implementation plans and look for areas where OST can support their actions	Analysis of EEJ Research and Monitoring Actions across NOAA Fisheries FMCs	Database of actions developed and analyzed	FY24, ongoing

Outreach and Engagement

OST will implement the EEJ core area of Outreach and Engagement by ensuring that public products, such as the Fisheries of the United States and Fisheries Economics of the United States, use accessible language, and that online portals, such as Fisheries One-Stop Shop, make data available to the public.

National Strategy Outreach and Engagement Actions supported: 2, 3, 5

Table 4. Office of Science and Technology Outreach and Engagement Actions

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
ST1	Seek feedback for data products, and increase interaction with users. When doing so use multiple approaches to reach underserved communities	Fosters the inclusion of all voices that can help shape data products. Can increase public trust in the work we do	Number of communications or engagements received by data users and/or the general public about our data products	Future plan
ST1	Ensure data portals are accessible, and develop other pathways (e.g., social media, flyers, coordination with regional groups) for underserved communities to be able to access NOAA fisheries data	Create access for data that overcomes barriers to some underserved communities, such as lack of internet	Universal compliance with 508c Identify and document other pathways for NOAA fisheries data access by underserved communities	Ongoing

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
Cross-division (ST3 lead)	Work with OST and national communications teams to ensure communication products are accessible to the target audience(s) using appropriate local terminology, translation(s) and reading level, and venues informed by regional offices, partners, and other entities	Allow for more equitable sharing of information and data products by ensuring underserved communities can access and fully understand materials	Number of communication products having EEJ-centric review before publication Number of communication products that include summary and response to public comments Number of communication products that are translated	Ongoing
ST4	Reinvigorate, and modify as needed, the undergraduate program in population dynamics to target underserved communities	Increase science outreach to underserved communities	Number of education and community engagement events and products targeting underserved communities	Annually and ongoing
ST4	Quest & Sea Grant capacity building strategy	Engage underserved communities in science activities related to NOAA Fisheries' research, conservation, and management mission	Number of students supported through this program	Annually and ongoing
ST5	Revive short course on fisheries economics at HBCU University of Maryland Eastern Shore	To develop broader understanding of economic issues among scientists in training from underserved communities	Short course established.	FY25
ST5	Participate as an instructor for InFISH summer program serving underserved communities	Enhance connections with NOAA Fisheries science, scientists, and career opportunities in underserved communities	Number of students from underserved communities supported through InFISH	Annually and ongoing
ST5	Mentor kids from schools in underserved communities to participate in Frontiers for Young Minds program through their science classes	Frontiers for Young Minds offers an opportunity for kids to act as reviewers for journal articles written for younger audiences, and would enhance connections with NOAA Fisheries science, scientists, and career opportunities	Number of students from underserved communities supported through the program	Future plan

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
ST7	Participate in internship programs that serve diverse communities (Hollings, Explorer in Training, José E. Serrano Educational Partnership Program with Minority Serving Institutions, etc.) and where needed develop selection criteria that remove barriers for participation by applicants from underserved communities	Increase impact by providing opportunities via these programs	Number of students from underserved communities supported through the program Development of selection criteria that remove barriers for participation by applicants from underserved communities	Annually and ongoing

Benefits

OST will implement the EEJ core area of Equitably Distribute Benefits by prioritizing benefit distribution to smaller and rural communities that are harder and more expensive to access, and investment in the under-resourced EEJ science disciplines. Additionally, OST will ensure that funds provided to regional science centers for specific programs and projects are not repurposed for other uses, undermining programs’ and projects’ ability to serve communities as planned.

National Strategy Benefits Actions supported: 3

Table 5. Office of Science and Technology Benefit Actions

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
ST1	FIS request for proposals outreach to islands/territories	Ensure underserved communities have a chance to apply for funds to support the data needs	Number of proposals received and funds distributed	Ongoing
ST1	Develop a process for tracking and evaluating equitable reallocation of resources, and/or seeking of new resources that better prioritizes underserved communities (e.g., as per MRIP regional implementation plan priorities)	More equitable distribution of resources and support	Development of a plan for equitable distribution of resources	Annually and ongoing
Cross-division	Develop EEJ review criteria for evaluation of request for proposals to reach underserved communities	More equitable distribution of resources and support	Development of a plan for fair distribution of resources	FY25, then ongoing

Inclusive Governance

OST will implement the EEJ core area of Inclusive Governance by using multiple engagement methods to solicit input from underserved communities. For example, in development of the Marine Recreational Information Program regional implementation plans, or the Integrated Ecosystem Assessment co-development process, OST would use multiple engagement methods to ensure the communities impacted by these programs are included from inception and throughout the planning process. These multiple methods could include conceptual modeling and scoping through community workshops, listening sessions, and structured interviews. This would be in addition to public input through the Federal Register.

National Strategy Inclusive Governance Actions supported: 1

Table 6. Office of Science and Technology Inclusive Governance Actions

Division(s)	EEJ Action	EEJ Goal / Impact	Metric	Timeframe
ST1	Ensure that underserved communities are represented on existing regional teams (e.g. MRIP ³ regional implementation teams)	Identify priorities for fisheries statistics needs in underserved communities	Number of staff representing underserved communities	Future
ST4	Build technical tools that are accessible to a wide audience with varying levels of expertise	Increase opportunity for underserved communities to participate in the management process	Feedback received and documented from underserved communities on accessibility of tools	Ongoing
ST7, ST5	Facilitate the ability of regional program teams (e.g., IEA, CEFI) to deliver direct and indirect ecosystem, climate information, and EEJ science into the management process.	To inform management decisions that concern communities impacted by trade-offs in multi-sectoral uses of oceans and coasts	Number of ecosystem and climate products that include EEJ science delivered to management annually (e.g., Ecosystem and Socioeconomic Profile, Ecosystem Status Report, State of the Ecosystem)	Annually and ongoing

³ Marine Recreational Information Program

Equity and Environmental Justice Goals by Division

OST Directorate

- Incorporate equity and environmental justice in office Vision and Mission statements and future planning and organizational activities.
- Commit Directorate engagement to support division level EEJ goals and activities.

NOAA FISHERIES CHIEF DATA OFFICER

- Ensure equitable access to NOAA Fisheries data through implementation of FAIR (Findable, Accessible, Interoperable, and Reusable) and CARE (Collective benefit, Authority to control, Responsibility, Ethics) principles.
- Foster better understanding on how to implement FAIR principles to build Indigenous Knowledge to meaningfully share and implement CARE principles.

Fisheries Statistics Division

FISHERIES SURVEYS AND SURVEY ADMINISTRATION

- Consider equity and environmental justice when crafting surveys, materials, and survey distribution plans.

DATA PRODUCTS AND MANAGEMENT

- Improve and consider EEJ in communications around data products. Prioritize implementing 508 compliance for communications and data products. Identify ways to elicit feedback from users of our data products. Support open science implementation—this fosters equity in development, accessibility, and sharing of tools.

FISHERIES INFORMATION SYSTEMS

- Consider equity and environmental justice in the request for proposals process. Strategize ways to better support proposals involving underserved communities.

SCIENTIFIC INTEGRITY

- Ensure the integrity of data products by adding additional quality assurance and quality control measures to the national landings statistics, which helps build trust in the data that NOAA Fisheries collects and shares.

Operation, Management, and Information Division

One of OST's roles is serving as a national coordination office with our services spanning all regions. This puts us in the unique position of being able to see how communities are impacted at each regional level. ST3 serves as a support to the other divisions in our organization and thus has the opportunity to empower EEJ throughout OST through our various functions.

OPERATIONS AND MANAGEMENT

- Create an empowering environment for EEJ through incorporation of EEJ in budgeting, communications, organizational structure, and human resources activities.
- Serve as a lens to ensure EEJ is included throughout office activities and enable OST to be a reflection of the communities we serve.

BUDGET

- Enable grants and other outgoing funds to reach all the communities we serve.
- Ensure there is an EEJ component in funding and contracting activities.
- Add an EEJ prompt to our activity plan templates used for the activity planning process.

COMMUNICATIONS

- Make tailored, comprehensible national science information informed by, and available to, underserved communities.
- Engage with other offices and regional Financial Management Centers to make communications products more equitable.
- Work with the other OST divisions regarding the consideration of including cultural implications of the work we do in the products we produce.
- Continue to prioritize ensuring that outward-facing OST products are 508 compliant.
- Be cognizant of the need for translation, including the use of local terminology.
- Investigate other NOAA line offices' efforts in translation including the use of newer technologies (e.g., National Weather Service using AI for translation generation).

HUMAN RESOURCES AND EMPLOYEE DEVELOPMENT

- Develop an EEJ curriculum for staff.
- Several Employee Resource Groups are discussing equity and environmental justice training development. This may be a resource ST3 reaches out to for guidance and/or collaboration.
- Consider the amount of funding that goes to training requiring travel and ensure equitable use of funds.
- Research and implement efforts to increase recruitment from underserved communities.

Assessment and Monitoring Division

DATA AND ASSESSMENTS

- Connect underserved communities with tools, data, and resources, and work to make them more accessible.
- Improve efficiency of tools so that they can present timely information that can be used by underserved communities.
- Support open science implementation—foster equity in development, accessibility, and sharing of tools.
- Capacity building within underserved communities.

FISHERY SURVEYS, FISHERIES MONITORING, AND COOPERATIVE RESEARCH

- Communicate on behalf of the regions on engagement methods with communities.
- Coordinate with underserved communities to make sure they are involved in cooperative research.
- Develop strategies for regular and sustainable data collections in underserved regions (e.g., U.S. Caribbean and Pacific Islands).
- Develop frameworks for prioritizing resources that incorporate EEJ-relevant metrics (i.e., use variables other than economic impact to prioritize resources).

SCIENTIFIC INTEGRITY

- Build trust in the science that NOAA Fisheries does, identifying the benefit to the public and product users, particularly from underserved communities, that use living marine resources.
- Assist/support regional science centers with EEJ engagement and implementation plans.

Economics and Social Analysis Division

DEVELOPMENT OF TOOLS FOR SCIENTIFIC ANALYSIS

- As OST's Economic and Social Analysis Division, ST5 has researchers with the scientific and technical expertise to conduct rigorous EEJ analysis that meets current scientific standards. Furthermore, ST5 has the capacity to take the results of this analysis and develop avenues for distilling this information and disseminating it to a broader audience.

DATA COLLECTION

- Lead the design and implementation of surveys that target or are designed to specifically include underserved communities when EEJ concerns have been identified. This should include surveys of subsistence fishing communities and other demographics that are difficult to sample (e.g., populations that don't buy licenses).
- In current and future surveys, work to include variables that capture the information needed for equity and environmental justice analysis (e.g., who participates in recreational fishing?).

METHODS DEVELOPMENT AND ANALYSIS

- Leverage available social and economic data to produce metrics and conduct analyses that will enable NOAA Fisheries meet its EEJ objectives.
- Develop methods for identifying underserved communities.
- Carry out an impact analysis of underserved communities (possibly at the county level) to determine state- and regional-level impacts of NOAA Fisheries' EEJ efforts.
- Enhance and support analyses of distributional and allocative efficiency and equity to characterize the multifaceted benefits of federal fisheries, including non-market benefits.
- Investigate the incorporation of equity analysis for supporting disaster relief determinations and ways in which we could provide information to states to support equitable distribution (in coordination with the Office of Sustainable Fisheries).

SHARING RESEARCH

- Create EEJ-focused tools, reports, and dashboards (potentially by region) to enable policymakers and the public to utilize the agency-developed EEJ resources. These tools and dashboards should be developed to accommodate new survey data and other metrics as they are developed.
- Produce scientific articles in peer-reviewed literature to provide the scientific foundation for the methods applied. Peer-reviewed literature and open science engender trust in the information that we provide.
- Develop and communicate research priorities and research results in plain language formats that are accessible, in first languages, and culturally appropriate for underserved communities.

COORDINATE EQUITY AND ENVIRONMENTAL JUSTICE EFFORTS

External Coordination

- Coordinate the flow of scientific information, analytical support, and expertise driven contributions for EEJ activities from regional science centers to the national EEJ Working Group, other NOAA Fisheries offices such as the Office of Sustainable Fisheries, and outside entities such as the National Academy of Sciences (e.g., see the National Academy of Sciences report on the equitable distribution of benefits).
- Collate the results of research from regional FMCs and outside entities to provide a national perspective on domestic federal fisheries (e.g., How many women fish in the United States?).

Internal Coordination

- ST5 will continue to coordinate OST's EEJ efforts and research across the divisions (this includes the Scientific Publications Office, and student education through programs such as SeaGrant and Quantitative Ecology and Socioeconomics Training).

LEADERSHIP AND COMMUNICATION

- Coordinate with other NOAA Fisheries offices and regional Financial Management Centers on best practices for inclusive sampling, communications, and engagement (e.g., brown bag on engaging communities).
- Ensure that research priorities, products, and outputs are accessible by a broad audience, in particular, underserved communities. Broadly accessible information not only empowers communities but facilitates feedback to improve priorities, projects, and analyses (e.g., ocean acidification and warming workshops).
- Assist or lead, as appropriate, in the equitable allocation of resources such as staff and funding as it becomes available.
- Foster trust with underserved communities through outreach, dialogue, and open science.

Science Information Division

- Application development (creating outward-facing portals, inward-facing publications), interface between OST and the Office of the Chief Information Officer.
- Develops full lifecycle information management applications.
- Supports data management and services for the OST and the science centers.
- Responds to requests from other line offices to expand the OST-developed services for use.

Marine Ecosystem Division

SCIENCE AND RESEARCH TO SUPPORT MANAGEMENT

- Ensure equity (e.g., fairness, honesty, transparency) in funding and implementing science programs (e.g., national and international grants, student fellowships) consistent with core mission mandates and requirements.
- Support regional programs (e.g., Integrated Ecosystem Assessment) that recognize the diversity of people, businesses, and communities that are part of ecosystems and climate systems, and need to be considered in management.
- Implement NOAA Fisheries' revised Ecosystem Based Fisheries Management Policy to improve the integration of socio-economic, habitat, climate change, ecological, ocean-use, and ocean condition information and needs throughout all Ecosystem Based Fisheries Management Guidelines, particularly clarifying the need for climate-ready fisheries that are integral to the human communities that depend upon them and their associated ecosystem services.
- Co-produce information (data, analysis, advice) with underserved communities, both nationally (e.g., IEA) and internationally, where feasible, through the design, review, and implementation of science and research projects and programs.
- Implement open science practices whenever possible to allow use of agency science and information by internal and external groups that work with underserved communities.

- Ensure research addresses multiple facets of living marine resources, beyond species of economic importance and commercial use, to include other aspects that impact communities such as subsistence use, biodiversity, and forage species.
- OUTREACH AND COMMUNICATION
- Make information available in an equitable manner, including working with the OST communications team (ST3) to leverage their expertise.
- Collaborate with the NOAA Library to organize and host the publicly available, virtual seminar series to increase awareness with regard to ecosystem science and management. The seminars are archived and accessible with closed captioning on the NOAA Library YouTube channel.
- Connect underserved communities with tools, data, and resources through intentional design and directed engagement.

SCIENTIFIC INTEGRITY

- Ensure the principles of scientific integrity are adhered to in the planning and conduct of research, and dissemination of scientific results that are used to inform NOAA and NOAA Fisheries management decisions that impact all the communities we serve.