



**DRAFT  
MARINE CONSERVATION PLAN  
FOR  
PACIFIC REMOTE ISLAND AREAS**



**March 30, 2023**

*Approved by the Council at its 194<sup>th</sup> Council Meeting*

Picture: Map of the Hawaiian Islands and the Pacific Remote Island Areas

© Western Pacific Regional Fishery Management Council

## Table of Contents

<b>Introduction</b> .....	<b>1</b>
<b>Prioritization and Ranking of Projects and Programs</b> .....	<b>1</b>
<b>I. PRIA Marine Conservation Objectives and Projects</b> .....	<b>2</b>
Objective 1: Support quality research and monitoring to obtain the most complete scientific information available to assess and manage fisheries within an ecosystem approach .....	3
Objective 2: Conduct education and outreach to foster good stewardship principles and broad and direct public participation in the Council's decision making process .....	5
Objective 3: Promote regional cooperation to manage domestic and international fisheries .....	5
Objective 4: Encourage development of technologies and methods to achieve the most effective level of fishery monitoring, control and surveillance, and to ensure safety at sea .....	6
Objective 5: Western Pacific Community Development Program and Western Pacific Community Demonstration Projects Program.....	6
<b>II. Hawaii Marine Conservation Objectives and Projects</b> .....	<b>7</b>
Objective 1: Support quality research and monitoring to obtain the most complete scientific information available to assess and manage fisheries within an ecosystem approach .....	7
Objective 2: Promote an ecosystem approach to fisheries management including reducing bycatch in fisheries and minimizing impacts on marine habitat and impacts on protected species and addressing climate change adaptation and mitigation.....	8
Objective 3: Conduct education and outreach to foster good stewardship principles and broad and direct public participation in the Council's decision making process .....	10
Objective 4: Recognize the importance of island cultures and traditional fishing practices in managing fishery resources and foster opportunities for participation .....	11
Objective 5: Promote responsible domestic fisheries development to provide long term economic growth, stability and climate resilience by reducing foreign imports and increasing local seafood production.....	12
Objective 6: Promote regional cooperation and capacity-building to manage domestic and international fisheries .....	13
Objective 7: Encourage development of technologies and methods to achieve the most effective level of monitoring, control and surveillance and to ensure safety at sea .....	14

DRAFT

Page intentionally left blank

## **Introduction**

This marine conservation plan (MCP) identifies projects, activities, and programs that would aid in meeting the Western Pacific Regional Fishery Management Council (Council) conservation and management objectives for fisheries in the U.S. exclusive economic zone (EEZ) around the U.S. Pacific Remote Island Areas (PRIA) and other islands in the Western Pacific Region. The PRIA is comprised of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Island, Wake Island and Palmyra Atoll.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) authorizes the negotiation of Pacific Insular Area Fishing Agreements (PIAFAs) to allow foreign fishing within the U.S. EEZ around the PRIA that are otherwise open to commercial fishing. Before entering into any PIAFA for the PRIA, the Council must develop a three-year MCP providing details on uses for any funds collected by the Secretary of Commerce (Secretary) from foreign fishing vessels.

Payments made to the Secretary for PIAFAs to the PRIA shall be deposited into the Western Pacific Sustainable Fisheries Fund (SFF). In addition, amounts received by the U.S. government from fines and penalties from illegal foreign fishing violations in the PRIA, as well as contributions received in support of conservation and management objectives are also deposited in the SFF. An example of contributions that can be deposited into the SFF are the payments made in association with the federally authorized transfers of bigeye tuna longline quota to Hawaii longline vessels from American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands (CNMI), which are categorized as Participating Territories to the Western and Central Pacific Fisheries Commission (WCPFC). Funds deposited into the SFF shall be made available to the Council to implement this and any other projects included in approved MCPs for American Samoa, Guam, or the CNMI and may be used to meet conservation and management objectives in the State of Hawaii if monies remain in the Fund after certain other Council funding requirements have been satisfied.

## **Prioritization and Ranking of Projects and Programs**

The MCP is organized in a format consistent with the Council's guiding principles and five-year Program Plan. Under each of the objectives, the Council has identified activities according to priority ranking.

Given the ever-changing nature of the region's fisheries, adaptive management regimes and shifting priorities in fishery ecosystem management, the Council has established the following process to be utilized as funds in the SFF become available.

- National Marine Fisheries Service (NMFS) notifies the Council that funds are available in the SFF.
- Council convenes a meeting of the Executive Committee.
- Executive Committee reviews priority ranking within Objectives and Tasks taking into consideration the following criteria:
  - Amount of funds available in the SFF;

- Current Council program issues and potential for non-SFF funding or support; and
- Availability of resources to successfully carry out project(s) identified in the MCP.
- Council's Executive Committee, in collaboration with the State of Hawaii, Territory of Guam, the CNMI, and/or Territory of American Samoa as appropriate, identifies the projects to be funded.
- Council staff works with NMFS Pacific Islands Regional Office (PIRO) to finalize a cooperative grant application for approval by NMFS.

## **I. PRIA Marine Conservation Objectives and Projects**

This MCP includes conservation and management objectives which are consistent with MSA 204(e)(4) and with the Fishery Ecosystem Plan (FEP) for the PRIA, the Pacific Pelagic FEP of the Western Pacific Region, and the Pelagic Fisheries Research Plan. The purpose of this MCP is to identify activities and projects that could be implemented to help achieve fishery conservation and management objectives for the PRIA. Under each of the conservation and management objectives, major task areas are identified within which specific planned activities are listed and ranked in priority order of implementation.

Through a Presidential Proclamation in 2009, President George W. Bush established the Pacific Remote Islands Marine National Monument (Monument). The Monument encompassed 0-50 nautical miles (nm) around each of the PRIA. In 2014, President Obama expanded the Monument to the full extent of the U.S. EEZ out to 200 nm around Johnston Atoll, Wake Atoll and Jarvis Island. Within the boundaries of the Monument, all commercial fishing is prohibited as well as the extraction or harm of Monument resources unless specifically authorized. The U.S. Fish and Wildlife Service and NOAA receive annual funding to implement and manage the Monument.

**Objective 1: Support quality research and monitoring to obtain the most complete scientific information available to assess and manage fisheries within an ecosystem approach.**

1. Support pelagic species tagging, analysis of hard parts (otoliths, spines), mark recapture and next generation approaches to support genetic studies in the PRIA to provide better understanding on the movement and stock structure of pelagic species. The wide geographical range of the PRIA provide access to areas that are critical to understanding how pelagic species utilize the equatorial and north to be a mixing area between equatorial and Hawaiian stocks while Palmyra has a strong link to the equatorial stocks. The stock exchange rates and biological connectivity between the equatorial PRIA (Howland and Baker, Jarvis), and their productivity input into the northern latitude tropical tuna fishing grounds are poorly understood. Tagging, analysis of otoliths and advanced genetic approaches can be used to investigate these issues.

*Evaluation criteria: Support activities that include obtaining the following:*

- a. *Data that will contribute to, and reduce uncertainty in, Western and Central Pacific Ocean (WCPO) and Eastern Pacific Ocean tuna stock assessments.*
  - b. *Cooperative workshops with fishery managers, scientists, fishing industry, and federal or international agencies for data collection and addressing knowledge gaps.*
  - b. *Information on movement and mixing of tropical tuna in the equatorial WCPO, between this region and adjacent regions of the Pacific, and the impact that fish aggregating devices (FADs) have on movement over large and small areas throughout the region.*
  - c. *Information on species-specific vertical habitat utilization by tunas and other pelagic management unit species (MUS) in the tropical WCPO, and the impacts of FADs on vertical behavior.*
  - d. *Information on local exploitation rates and productivity of tuna in various parts of the WCPO.*
  - e. *Information to better define stock structure, mixing rates and connectivity of tunas and other pelagic MUS, especially between equatorial and north Pacific regions.*
2. Support the collection and analysis of life history characteristics through biosampling of MUS. Currently, there is a paucity of this information for many species and such information is critically important for stock assessments. The PRIA provides an opportunity to sample unfished populations of reef fish, bottomfish, and nearshore pelagic species such as dolphinfish (*mahimahi*) and wahoo (*ono*) to generate age structure, growth parameters, longevity and natural mortality rates. These areas can also support biosampling of pelagics for studies on age, growth, movement/connectivity and reproductive biology critical to stock assessments.

*Evaluation criteria: Support biosampling activities for MUS whereby the data collected is incorporated into life history studies and ultimately stock assessments.*

3. Quantify and produce a report (by year and location) on all past and recent commercial fishing effort, landings and bycatch in the surrounding EEZ of each of the PRIA that is

currently open to commercial fishing. Provide the final report and associated products to managing agencies as well as the public.

*Evaluation criteria: Development of a report.*

4. Support cooperative research with U.S. fisheries on evaluating spatial closures and large scale marine protected areas on U.S. longline, U.S. purse seine, other U.S. fishery opportunities and foreign fisheries. This research should specifically analyze conservation impacts on target and non-target (including protected) species, social and economic impacts on Pacific Island communities and U.S. fisheries, and the adaptive capacity of these spatial closures to address threats imposed by climate change. Research should consider such impacts due to fishing effort redistribution displaced on the high seas in direct competition with foreign fisheries.

*Evaluation criteria: Support activities that fulfill the following:*

- a. *Quantity impacts of area-based management tool (ABMT) implementation and closed areas using state-of-the-art analytical tools, such as counterfactual analyses.*
  - b. *Identify suitable objectives (ecological/conservation, economic, political, etc.) and corresponding performance metrics for evaluating or monitoring any proposed or existing closure implemented; and evaluate and monitor those objectives using those performance metrics.*
5. Support cooperative research investigating alternative ABMTs and their ability to address objectives associated with: conservation, management efficacy, social impacts, economic performance and/or adaptive capacity to address threats induced by climate change.

*Evaluation criteria: support activities that fulfill the following:*

- a. *Identify alternative ABMTs for any proposed or existing closures or ABMTs.*
  - b. *Workshops with academia, fishing industry, NGOs and managers to evaluate ABMTs and to identify/weigh management objectives.*
  - c. *Development of decision tools or interactive management tools that managers and scientists can use to evaluate existing or proposed ABMTs.*
6. Support cooperative research on tradeoffs between longline fishing which targets adult bigeye tuna with purse seine fisheries utilizing FADs in the PRIA. Purse seine fishing for tuna on FADs in the equatorial Pacific Ocean results in the incidental harvest of juvenile bigeye and yellowfin tuna, compromising yield per recruit impacts. Specifically, there is a tradeoff between yield per recruit and juvenile fishing mortality for bigeye tuna. In brief, there is a lot of yield and fishing opportunity being foregone because juvenile fish are being harvested instead of adults. This is a long-term issue that should be part of the decision process in managing fisheries in and around the PRIA in productive, tropical Pacific zones. Stock assessments for bigeye and yellowfin tuna in the WCPO indicate that the maximum sustainable yield of bigeye would be increased if mortality of immature bigeye was reduced. This is particularly relevant for onboard identification and evaluation of bigeye species composition to assess the feasibility of vessel or fleet specific bigeye catch limits. The approach may utilize new technology such as the use of electronic monitoring to automate onboard catch composition sampling.

*Evaluation criteria:*

- a. *Management strategy evaluation or interactive decision tool development with WCPFC Science Providers and the Pacific Community (SPC) looking at long-term impacts of yield-per-recruit and future yield opportunities for U.S. fisheries.*
- b. *Quantification and characterization of bycatch per purse seine and longline set. The quality of bycatch data from Pacific Island Forum Fisheries Agency observers on purse seine vessels are highly variable, meaning that raising these data to fleet-wide totals through a statistical analysis of the data is not possible.*
- c. *Evaluation of onboard species composition and length frequency sampling versus port sampling.*
- d. *Evaluation of new technologies to better electronically sample and monitor catch compositions in fisheries around the PRIA.*

**Objective 2: Conduct education and outreach to foster good stewardship principles and broad and direct public participation in the Council's decision making process.**

1. Support education and outreach activities related to sustainable fisheries management of pelagic fisheries in the PRIA. Activities may include: developing and conducting training programs and information sessions to provide teachers with fisheries information; maintaining a speakers bureau and a lecture series that focuses on the ocean environment and fisheries; providing information and community-based workshops to the public regarding environmental issues and laws; developing and distributing brochures, flyers, newsletters, etc. by mail, email and/or via the web; airing video and audio programs via television, radio, the internet and CDs/DVDs; partnering with public aquariums and science and cultural centers on exhibits, educational resources and visitor/docent resources; and collaborating with local and regional agencies, organizations, and the University of Hawaii and other institutions on relevant public outreach and education.

*Evaluation criteria: Number of students reached through the speakers bureau; use of curricula and educational resources produced by the Council in the classroom; number of outreach events attended in Hawaii, Guam, CNMI and American Samoa; and increased use of Council's education and outreach web pages.*

**Objective 3: Promote regional cooperation to manage domestic and international fisheries.**

1. The three equatorial PRIA (Howland/Baker, Kingman Reef/Palmyra, and Jarvis) are located in the central equatorial Pacific which have high concentrations of bigeye tuna (especially juveniles) and are also located strategically close to the nations that are developing, or have developed, regional fisheries arrangements (e.g., Parties to the Nauru Agreement). For this reason, it is imperative that the Council participate in international fishery policy development and implementation in all relevant regional fishery management organizations (substantive and emerging) and other regional organizations and fora.

*Evaluation criteria:*

- a. *Council participation in international and regional issues and discussions.*
- b. *Workshops with international partners on effective management of tropical island fisheries (e.g., zone-based management of tuna fisheries, capacity-building training for Pacific Island fishery management).*



- c. *Export of environmentally responsible fishing strategies to neighboring countries in the Pacific and beyond based on successful implementation in Council-managed fisheries.*
- d. *Develop agreeable compliance and monitoring scheme with international partners to hold international standards to par with U.S. compliance and monitoring standards.*

**Objective 4: Encourage development of technologies and methods to achieve the most effective level of fishery monitoring, control and surveillance, and to ensure safety at sea.**

1. Support trial or pilot programs to test new technologies for information gathering in coordination with federal, state and industry representatives. This can include interactive tools for managers, scientists, and fishers to compile and house fishery dependent and fishery independent data sources.

*Evaluation criteria: Identify and carry out projects that may enhance or improve existing monitoring; implement new technologies in fisheries management and enforcement. New technologies may include integration of non-confidential data with the Pacific Islands Ocean Observing System.*

2. In the event a PIAFA is developed for the PRIA, support observer programs or other monitoring efforts that are adequate to monitor the harvest, bycatch and compliance of foreign fishing vessels that fish under PIAFAs in the PRIA. However, no foreign fishing under PIAFAs in the PRIA is being contemplated nor negotiated at this time.

*Evaluation criteria: Establishment of observer program and coverage levels for any PIAFA.*

3. Participate in Pacific-wide and sub-regional consultations on vessel monitoring systems (VMS) and other electronic technologies to monitor fisheries. VMS technology continues to develop and regional fishery management organizations such as the WCPFC have required member countries to equip their vessels with VMS units. The WCPFC is currently considering electronic monitoring including the use of video observer systems. Funding will be used for staff travel and participation in meetings and conferences regarding monitoring, control and surveillance implementation and technology.

*Evaluation criteria: Participation in regional or international monitoring, control and surveillance conferences, meetings or workshops.*

**Objective 5: Western Pacific Community Development Program and Western Pacific Community Demonstration Projects Program**

1. Support activities that would promote participation and access to fisheries for eligible Western Pacific communities consistent with MSA Section 305(i)(2) and Section 305 note.

*Evaluation criteria: Participation of a community under the Community Development Program or Community Demonstration Projects Program in PRIA fisheries.*

## II. Hawaii Marine Conservation Objectives and Projects

Section 204(e)(7)(C) of the MSA authorizes the Council to use the SFF to meet conservation and management objectives in the State of Hawaii. Under each of the conservation and management objectives, major task areas are identified within which specific planned activities are listed and ranked in priority order of implementation. The following list of activities is consistent with the conservation and management objectives of the Hawaii Archipelago FEP and Hawaii fisheries under the Pelagic FEP.

### **Objective 1: Support quality research and monitoring to obtain the most complete scientific information available to assess and manage fisheries within an ecosystem approach.**

1. Support single species stock assessments for deep-seven bottomfish species.

*Evaluation criteria: Development of single species stock assessments.*

2. Support activities to ensure more accurate reporting of fishing activities by the deep-seven bottomfish fishery, such as better outreach and education.

*Evaluation criteria: Improved reporting, outreach and education for deep-seven bottomfish fishery.*

3. Support cooperative research projects and joint project agreements with institutions, agencies, researchers and the fishing community to collect scientific fishery information, identify and/or monitor fishery and habitat resources, assess research and monitoring programs, and support other fisheries research within Hawaii and the western Pacific.

*Evaluation criteria: Identify and implement projects and joint project agreements to support research activities such as, but not limited to, tagging, bio-sampling, experimental fishing, socio-economic surveys, ecosystem modeling, habitat monitoring, stock abundance and stock assessment.*

4. Characterize the market and non-market channels of locally produced and imported seafood products. This study would include the movement of fish through local markets and communities, and the broader national and international seafood markets.

*Evaluation criteria: Access to information that leads to better informed social impact statements for fisheries ecosystem plans.*

5. Characterize human communities in Hawaii and their demographics that are dependent on fishery resources. Community dependence on fisheries varies within Hawaii. Understanding such dependence is important in developing fishery management measures, especially in the context of marine spatial planning and equity and environmental justice.

*Evaluation criteria: Development of community profiles.*

**Objective 2: Promote an ecosystem approach to fisheries management including reducing bycatch in fisheries and minimizing impacts on marine habitat and impacts on protected species and addressing climate change adaptation and mitigation**

1. Collect information on protected species interactions.

*Evaluation criteria: Design and implement projects to collect this information.*

2. Support activities related to the conservation, management, and recovery of protected and vulnerable species. Activities may include support for: recovery of Pacific sea turtles that interact with fishing vessels; management of Endangered Species Act-listed green sea turtles and other species of cultural importance; and minimizing to the extent practicable interactions between protected species and fishing vessels.

*Evaluation criteria: Participate in or coordinate meetings and workshops, compile and analyze data on stock status, population distributions, including distinct population segments, and support the development of environmentally responsible fishing methods.*

3. Review effectiveness and enforceability of existing federal and applicable state marine resource plans and regulations to support consistent and comprehensive ecosystem approach to fisheries management.

*Evaluation criteria: Conduct working groups, meetings, conferences, and workshops related to this task and complete comprehensive review and identification of effective and ineffective management measures or other components of fishery management, such as stock reference points or essential fish habitat/habitat areas of particular concern.*

4. Support rehabilitation of Hawaiian *ahupuaa* in collaboration with community groups and other partners to restore ecosystem functions, improve habitat, enhance water quality and increase fish abundance.

*Evaluation criteria: Observed results related to improved water quality, fish abundance, and species diversity.*

5. Support working groups, meetings, conferences and workshops relating to implementation of ecosystem-based approaches to management fisheries that may include topics on scientific information and research/assessment needs, social, cultural and economic considerations, inter-jurisdictional issues, ecosystem indicators, climate change adaptation and mitigation, and other areas of importance. Support for these include: travel, meeting venue, analysis, document preparation and distribution, facilitation, report generation and meeting advertisement.

*Evaluation criteria: Conduct working groups, meetings, conferences, and workshops related to ecosystem-based management and the production of associated meeting reports.*

6. Produce historical, social and bio-physical baselines for ecosystem cycles and rhythms in Hawaii fisheries. Support activities to: (1) compile information documenting place-based conservation methods (by island), including cultural, spiritual, political and ceremonial

protocols; (2) facilitate development of community adaptive management experiments to translate cultural practice into western concepts; (3) develop place-based database and information for community use and management.

*Evaluation criteria: enhanced understanding of ecosystem indicators and cycles based on community knowledge and traditional use; development of place-based database for use in Council FEPs and community-based management.*

7. Develop appropriate responses to acute and chronic ecosystem disturbances, including climate change adaptation and mitigation. Support is needed to identify and monitor critical indicators of ecosystem health and function over time. There are many methods to monitor changes in the ecological function and value of species and their associated biota. Changes in species biodiversity, species abundance or species presence/absence can be used to assess the overall health of an ecosystem. Building on existing ecosystem monitoring programs, key indicator species (those sensitive to minute changes) will be identified and monitored over time, providing a baseline, or “measuring stick,” from which to assess environmental stresses to archipelagic insular ecosystems.

*Evaluation criteria: Identification of marine resource indicators and application of those indicators in appropriate management responses.*

8. Support the establishment of community-based management plans including marine planning, monitoring of ecosystem components and indicators, and addressing climate change adaptation and mitigation. This project would utilize community interest in monitoring resources on which they depend.

*Evaluation criteria: Conduct community-based management planning and develop implement methods and procedures to collect ecosystem indicator information and build community capacity.*

9. Investigate and document human impacts in marine ecosystems, including the impacts of land-based activities (e.g., runoff, sewage outfalls, dredging), the implications of restrictions to shoreline access due to development, military use, regulatory changes or other causes, and the impacts of increasing populations on marine ecosystems.

*Evaluation criteria: Increased knowledge of the relationships between various anthropogenic activities and marine ecosystems managed by the Council and the use of that information for Council decision-making and documentation in PRIA, Hawaii and other Council FEPs.*

10. Support invasive species assessments and removal activities that help restore ecosystem health and function as well as increase native populations of MUS that are dependent upon those ecosystems.

*Evaluation criteria: Collaborate with community groups and other partners to identify and conduct invasive species removal projects.*

11. Support marine debris (including derelict fishing gear prevention), mitigation, and removal projects.

*Evaluation criteria: Support programs that develop best practices for prevention; support projects that mitigate effects of marine debris, and projects to remove marine debris.*

**Objective 3: Conduct education and outreach to foster good stewardship principles and broad and direct public participation in the Council's decision making process.**

1. Support activities to increase community awareness about the Council process and Council-managed fisheries. Activities may include: developing and conducting training programs and information sessions to provide teachers with fisheries information; conducting a high school summer course on marine fisheries and resources; maintaining a speakers bureau and a lecture series that focuses on the ocean environment and fisheries; providing information and community-based workshops to the public regarding environmental issues and laws; developing and distributing brochures, flyers, newsletters, etc. by mail, email and/or via the web; airing video and audio programs via television, radio, the internet and CDs/DVDs; partnering with public aquariums and science and cultural centers on exhibits, educational resources and visitor/docent resources; and coordinating with local and regional organizations on relevant public outreach and education. Activities may also include planning and coordination with the Marine Education and Training program and with the other regional fishery management councils, NMFS and education and outreach staff.

*Evaluation criteria: Positive outcomes of focus groups/interviews with fishermen and educators conducted by a professional research firm; use of curricula and educational resources produced by the Council in the classroom; and increased use of Council's outreach and education web pages.*

2. Support activities to participate in national, regional, and international events, workshops, conferences, and meetings to showcase or provide information on Council-managed fisheries.

*Evaluation criteria: Participation in events and meetings.*

3. Support activities to produce videos and audio programs on the importance of fisheries, the Council-process and public involvement, and community-based management; create an annual report informing the public about Council-managed fisheries and recent management measures; create a history of the Council informing the public of the progress of fisheries management in the Western Pacific Region; continuously upgrade and update the Council's website; develop radio and television spots and print ads and articles to inform the public about upcoming meetings or issues; create brochures, flyers, displays, and exhibits to inform the public; produce periodic newsletters and monographs; develop school curricula and educational resources on issues related to sustainable fisheries; upgrade and update the Council's mailing database, including ability to distribute newsletters by email and solicit subscribers via the Council's website; and enhance the Council's photo and video archive and ability to provide photos and B-roll to the media via the internet.

*Evaluation criteria: Production and increased use of curricula and educational resources in the classroom; increased use of Council's outreach and education and media web pages; increased positive media relations and positive media coverage; and increased appearance of Council and/or sustainable seafood messages in public venues and other media as a result of Council activities.*

**Objective 4: Recognize the importance of island cultures and traditional fishing practices in managing fishery resources and foster opportunities for participation.**

1. Support the development of community networks to facilitate communication and participation of indigenous communities in fisheries policy development and practical fisheries management.

*Evaluation criteria: Increased level of community participation in fishery policy development and fisheries management.*

2. Support a native Hawaiian fishery observer program.

*Evaluation criteria: Increased number of native Hawaiians participating in federal fishery observer program.*

3. Support, the Western Pacific Community Development Program, Western Pacific Community Demonstration Projects Program, Western Pacific Marine Education and Training Program or other community funding programs that promote the management, conservation, and economic enhancement of communities in the region and - foster traditional and indigenous fishing practices and rights.

*Evaluation criteria: Increased number of indigenous communities participating or seeking to participate in programs established through MSA.*

4. Support and coordinate community meetings to assess needs and priorities within indigenous fishing communities.

*Evaluation criteria: Increased level of community participation and engagement in providing information on needs and priorities.*

5. Conduct study on economic and social impacts of regulations on Native Hawaiian communities.

*Evaluation criteria: Use of information in evaluating potential regulatory impacts on indigenous communities.*

6. Support a workshop series on teaching traditional indigenous fishing techniques and practices to young people, along with development of curriculum for all grade levels. Activities may include planning and coordination with the Marine Education and Training program.

*Evaluation criteria: Hold workshops and produce curriculum.*

7. Support the development and use of traditional lunar calendars for community-based management of marine resources.

*Evaluation criteria: Production, distribution, and utilization of lunar calendars by communities.*

8. Support projects that help to document traditional fishing practices and generational ecosystem knowledge used by Native Hawaiian communities.

*Evaluation criteria: Development of archive or database of traditional practices.*

**Objective 5: Promote responsible domestic fisheries development to provide long term economic growth, stability and climate resilience by reducing foreign imports and increasing local seafood production**

1. Support the deployment of Community Fish Aggregation Devices (CFADs), which can provide community benefits such as accessible and maintained commercial, recreational, and subsistence fishing opportunities, community fish sharing, youth education of fishing knowledge and practices, and cooperative research. Furthermore, some communities have lost access to their nearshore areas due to regulatory measures or other factors, and CFADs located offshore of these area may help increase opportunities for sustainable fishing that may provide both social and economic benefits. The CFADs can also be used to monitor ecosystems through additional sensors or other technologies placed on the buoy to assist both fishing communities and scientists on such things as currents, tides, temperature, biomass, etc. CFADs funded under this program would be registered with the U.S. Coast Guard as legal aids to navigation and authorized by other applicable agencies as appropriate.

*Evaluation criteria: Successful deployment of CFADs, cooperative research activities, data collection, and increased fishing opportunities denoted by increased fish production.*

2. Support activities that assist communities in developing their fisheries.

*Evaluation criteria: Facilities construction, equipment procurement, and working fishery operations.*

3. Support improvements to boat harbors, boat ramps, and vessel access points that allow for more efficient and safer access for fishing vessels, including repair and maintenance of State boat ramps and boating facilities in consultation with the State of Hawaii Department of Land and Natural Resources for prioritization.

*Evaluation criteria: Completion of projects that improve access or make existing areas safer for launching and retrieving fishing vessels.*

4. Support the development of moorings and navigational protocols for longline vessels to prevent vessel grounding incidents.

*Evaluation criteria: Development of moorings and navigational protocols.*

5. Support the establishment of fuel storage facilities for remote communities that currently pay significant fuel costs for fishing vessels.

*Evaluation criteria: Establishment of fuel storage facilities that are equipped to store fuel for fishing vessels at much lower costs than what fishermen currently pay in rural fishing communities.*

6. Support the development of fish marketing plans for sustainably harvested MUS that includes topics on market identification, transportation, fish products, product branding and eco-labeling, and other marketing issues.

*Evaluation criteria: Development and production of marketing plans.*

7. Identify, develop, and fund fisheries training programs and workshops in seamanship, fishing technology, fish handling and quality, vessel or gear maintenance, etc. Activities may include planning and coordination with the Marine Education and Training program.

*Evaluation criteria: Develop and carry-out programs and workshops.*

8. Support the sustainable production of seafood in Hawaii and reduce dependence on foreign seafood imports.

*Evaluation criteria: An observed reduction in foreign imports in to Hawaii from 60% to 50% in the next five years.*

9. Support sustainable aquaculture development through partnerships with institutions, organizations, agencies, industry, and communities for best practices and environmentally responsible operations.

*Evaluation criteria: Development of sustainable aquaculture plans, management measures, and operations.*

#### **Objective 6: Promote regional cooperation and capacity-building to manage domestic and international fisheries**

1. Develop and/or support scholarship programs for students from American Samoa, Guam and the CNMI to attend a college or university at University of Hawaii at Hilo, University of Hawaii at Manoa, Hawaii Pacific University or University of Guam to pursue an undergraduate or graduate degree in marine science with a focus on fisheries science or management.

*Evaluation criteria: Demonstrated student participation in scholarship program and later employment in local areas in jobs related to marine resource management.*

2. Develop and support internships at the Council and or local management agencies and organizations.



*Evaluation criteria: Demonstrated student intern positions working on marine resource management issues.*

3. Participate in and monitor international fishery policy development and implementation in all Pacific regional fishery management organizations (substantive and emerging), and other international organizations and meetings such as (but not limited to) WCPFC, Inter-American Tropical Tuna Commission, South Pacific Tuna Treaty; North Pacific Fishery Management Commission, South Pacific Regional Fishery Management Organization, Food and Agriculture Organization Committee on Fisheries, Convention on the International Trade, Convention on International Trade in Endangered Species of Wild Fauna and Flora; International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean; U.S.-Japan Consultative Committee on Fisheries; International Council for Exploration of the Sea; Inter-American Convention for Turtles; Indian-Ocean MOU for Turtles; Secretariat of the Pacific Community, South Pacific Regional Environment Program; International Fishers Forum; International Union for the Conservation of Nature, and other similar international organizations.

*Evaluation criteria: Staff reports to Council on latest international and regional issues; export of environmentally responsible fishing to neighboring countries in the Pacific and beyond based on successful implementation in Council-managed fisheries.*

**Objective 7: Encourage development of technologies and methods to achieve the most effective level of monitoring, control and surveillance and to ensure safety at sea**

1. Support trial or pilot programs to test new technologies for information gathering in coordination with federal, state and industry representatives.

*Evaluation criteria: Identify and carry-out projects that may enhance or improve existing monitoring; implementation of such technologies in fisheries management and enforcement.*

2. Support interagency cooperation through holding of regular meetings to enhance and coordinate enforcement efforts in Hawaii.

*Evaluation criteria: Biannual meetings with local and federal enforcement agencies.*