Field	Study Information
Title	Socioeconomic Characterization and Analysis of Pacific Island Fisheries (PC-26-04)
Administered by	Pacific OCS Region
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Procurement Type(s)	Interagency Agreement
Conducting Organization(s)	NOAA Pacific Islands Fisheries Science Center
Total BOEM Cost	TBD
Performance Period	FY 2026–2028
Final Report Due	TBD
Date Revised	August 25, 2025
Problem	There is a lack of comprehensive, up-to-date information on commercial and non-commercial fisheries in the U.S. Pacific Islands that is summarized in a way that supports timely impact analyses related to offshore development.
Intervention	This study will summarize and analyze existing information to: 1) characterize regional and local fisheries, focusing on attributes that may be sensitive to disruption by offshore development; 2) summarize existing data sets and indices available for impact assessment and highlight areas of data insufficiency; 3) review existing IMpact analysis for PLANning (IMPLAN) frameworks and discuss utility for understanding potential impacts from offshore development; and 4) describe how protected areas (e.g. the Rose Atoll Marine National Monument) support existing fishery ecosystem and management plans, and how the integrity of this support may be affected by offshore development.
Comparison	Different fisheries will be compared/characterized through time, gear, geographic location, size, revenues, management framework, and cultural and economic importance; the socioeconomic environment used to inform existing IMPLAN models (e.g. Chan 2023, 2024, etc.) will be compared with a prospective environment that includes offshore seabed mining.
Outcome	A comprehensive report that can be used to (1) describe the affected environment for evaluating socioeconomic impacts of offshore energy and/or mineral development on U.S. Pacific fisheries and their supporting sectors, (2) supports impact analyses, and (3) identifies information needs.
Context	The initial analysis will focus on American Samoa, a U.S. Pacific Island Territory that is prospective for seabed mineral development. The second phase of analysis will focus on the Mariana Archipelago (Guam and the Commonwealth of Northern Marina Islands). If additional funding becomes available, this study may be expanded to other areas in the Pacific related to study objectives.

BOEM Information Need(s): There is growing interest in exploring offshore energy and/or minerals in the Pacific Islands region; however, while some information exists, it is outdated, and there is a lack of current baseline information about the fisheries, communities, support industries, and infrastructure that may be affected by disruptions to fishing activities. The Pacific Islands Fisheries Science Center has

provided valuable insights into the sociocultural context and history of fishing, data sources, and commercial fisheries metrics such as pounds landed and revenue (Lowe et al. 2016; Allen and Bartram 2008; Gove et al. 2022; Levine and Allen 2009). BOEM Pacific Region has also engaged stakeholders and conducted structured discussions with fishing community members as part of the study *Evaluating Hawaiian Fisheries and Potential Impacts of Offshore Wind Energy Development* (PC-23-05), and the *Pacific Regional Ocean Uses Atlas* (OCS Study BOEM 2015-014). While these efforts provide a start for understanding fisheries and fishing communities, there is a lack of comprehensive, up-to-date information on commercial and non-commercial fisheries in the U.S. Pacific Islands that is summarized in a way that supports timely impact analyses related to offshore development.

Background: Like most Pacific Island countries and territories, fisheries in American Samoa, Commonwealth of the Northern Marina Islands (CNMI), Guam, and Hawai‘i have supported local economies, food systems, food security, and social cohesion for thousands of years (Allen and Bartram 2008; Gove et al. 2022; Levine and Allen 2009). American Samoa hosts Starkist Samoa, once the largest tuna cannery in the world, while the Hawaiian longline fleet has an estimated economic impact of $867 million annually, and Guam's ports play a critical role in fresh tuna transshipment (Allen and Bartram 2008; Levine and Allen 2009; WPRFMC 2022). Additionally, small-boat and subsistence fisheries significantly impact the livelihoods and well-being of many local communities. For example, in American Samoa, many nearshore fishermen do not sell their catch but instead share landed fish within the community, and by doing so maintain a vital cultural tradition (Levine and Allen 2009). In Guam, 96% of fishermen share their catch with relatives and friends (Allen and Bartram 2008). Similarly, small-boat commercial fishermen in Hawai‘i often retain a portion of their catch for home consumption and share it with family and friends (Gove et al. 2022).

The Bureau of Ocean Energy Management (BOEM) Pacific Region is responsible for planning, siting, and authorizing offshore energy and marine mineral development on the Outer Continental Shelf (OCS) surrounding American Samoa, Commonwealth of the Northern Marina Islands (CNMI), Guam, and Hawai‘i. These communities, which rely on both commercial and non-commercial fishing, may be affected by offshore development activities due to the spatial overlap of each industry’s activities. Tuna fisheries are especially important in the Western and Central Pacific (Barclay & Cartwright 2007). They are the economic backbone of American Samoa, underpinning its tuna processing industry, private-sector employment, and nearly all of its export revenue. (Chan 2023, Levine and Allen 2009). Therefore, how offshore activities may affect tuna fisheries is a key information need for BOEM.

Objective(s): The overall objective and purpose of this study is to assemble, coordinate, and analyze existing sources of fisheries data and reports into a description of the human environment potentially affected by offshore development, and to investigate the sensitivity of local fisheries and economies to disruption. The need of this study is to facilitate timely reviews and analysis for proposed projects, and to develop appropriate best management practices and mitigation measures to address potential impacts. Specific objectives are to: 1) characterize regional and local fisheries, focusing on attributes that may be sensitive to disruption by offshore development; 2) describe existing data sets and indices available for impact assessment and highlight areas of data insufficiency; 3) review existing IMpact Analysis for PLANning (IMPLAN) frameworks and discuss their utility for understanding potential impacts from offshore development; and 4) describe how protected areas (e.g. the Rose Atoll National Marine Monument) support existing fishery management plans, and how the integrity of this support may be affected by offshore development.

Methods: Data gathering and analysis will be conducted by utilizing various sources, including data from Regional Fishery Management Organizations (e.g. Western and Central Pacific Fisheries Commission, Inter-American Tropical Tuna Commission, and the South Pacific Regional Fisheries Management Organization, etc.), the Western Pacific Fisheries Information Network (WPacFIN), Department of Marine and Wildlife Resources in American Samoa, Division of Fish and Wildlife in CNMI, and Division of Aquatic and Wildlife Resources in Guam; survey data (e.g., Hawai'i small boat survey); information obtained from previous engagement sessions and focus groups with fisheries stakeholders in the Pacific Islands; insights from subject matter experts; and relevant existing literature. NOAA PIFSC will lead the effort and collaborate with applicable federal, local, and state agencies, as well as community partners, to support data acquisition and analysis efforts. PIFSC will regularly communicate with BOEM staff to produce products that address information needs.

Specific Research Question(s): Specific research questions will be addressed using existing data and focus first on American Samoa. If funding exists, other geographic areas may be analyzed.

1. What is the socioeconomic importance (e.g. employment, contribution to GDP, export volume and value, licensing and tax revenue, etc.) of commercial and non-commercial fisheries and fishing-related industries? For American Samoa, what are the characteristics and importance of the cannery to the local economy?
2. What is known about how local communities source their seafood, and to what extent do these communities rely on this seafood for food security?
3. What are the primary ports, harbors, and access points in each region, what is the qualitative state of fisheries infrastructure at each site, and how do they support fishing operations?
4. What fisheries are present in American Samoa and what are the important features of each fishery? For the local and regional fisheries most sensitive to energy or mineral development, what are the spatial, temporal, ecological, demographic, economic, socio-cultural, technological, harvest, and management characteristics?
5. What datasets and indicators are available to describe and monitor fisheries, and what are the advantages and limitations of each type? Regarding offshore development, what are the existing areas of data inadequacy in understanding potential fisheries impacts?
6. Can existing IMpact analysis for PLANning (IMPLAN) frameworks (e.g. Chan 2023, 2024, etc.) be adapted to predict the potential direct, indirect, and induced economic effects on the community if offshore development affects local fishery landings? What are the benefits and limitations to adapting an existing IMPLAN model and are there better approaches available?
7. What is known about the extent of illegal, unreported, and unregulated fishing in state and federal waters?
8. How do protected areas (e.g. the Rose Atoll Marine National Monument) support existing fishery ecosystem and management plans, and how may the integrity of this support be affected by offshore development?

Current Status: N/A

Publications Completed: N/A

Affiliated WWW Sites: None

References:

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