



LEMANU P. S. MAUGA
GOVERNOR

OFFICE OF THE GOVERNOR
AMERICAN SAMOA GOVERNMENT
Telephone: (684) 633-4116 Fax: (684) 633-2289

TALAUEGA E. V. ALE
LIEUTENANT GOVERNOR

Serial No.: 373 – 21

July 21, 2021

Mr. Michael Tosatto
Regional Administrator, Pacific Islands Regional Office
NOAA Inouye Regional Center, 1845 Wasp Blvd., Building 176
Honolulu, Hawaii 96818

Dear Mr. Tosatto:

I am pleased to submit to you the 2021-2024 American Samoa Marine Conservation Plan for review and approval. The latest Plan contains objectives and priorities to maximize sustainable fisheries benefits through fisheries infrastructure, fisheries research and fisheries development for the people of American Samoa. The plan recognizes the importance of basic fisheries research and traditional knowledge to support fisheries management.

We have specified the top priorities for funding. The objectives and priorities have been developed with our present needs in mind and are consistent with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Your approval and endorsement of this amended MCP will be essential for the Territory to fund these fisheries priorities.

Thank you for your continued support on our fisheries, and their development and management. Please feel free to contact our office for any clarification with regards to this latest Marine Conservation Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Lemanu P. S. Mauga".

Lemanu P. S. Mauga
Governor of American Samoa

Encl: American Samoa Marine Conservation Plan

cc: Talauega E. V. Ale, Lieutenant Governor
Taotasi Archie Soliai, Director | AS Department of Marine and Wildlife

AMERICAN SAMOA MARINE CONSERVATION PLAN

Prepared in accordance with Section 204
of the Magnuson-Stevens Fisheries Conservation and Management Act



July 2021

Department of Marine and Wildlife Resources
P.O. Box 3730
Pago Pago, American Samoa 96799

Table of Contents

I. INTRODUCTION 3

II. MARINE CONSERVATION PLAN OBJECTIVES AND PROJECTS..... 5

Objective 1: Maximize social and economic benefits through sustainable fisheries..... 5

Objective 2: Support quality scientific research to assess and manage fisheries 7

Objective 3: Promote an ecosystem approach in fisheries management 8

Objective 4: Recognize the importance of island culture and traditional fishing in managing fishery resources and foster opportunities for participation..... 9

Objective 5: Promote education and outreach activities and regional collaboration regarding fisheries conservation 9

Objective 6: Encourage development of technologies and methods to achieve the most effective level of enforcement and to ensure safety at sea..... 10

REFERENCES 11

I. INTRODUCTION

American Samoa is an unincorporated U.S. territory and the only US territory in the South Pacific. It is approximately 4,200 km south of Hawai'i, in the central South Pacific Ocean. It is geologically part of the Samoa Archipelago, a remote chain of 13 islands of varying sizes and an atoll, located 14° south of the equator near the International Date Line. The archipelago is divided into two political entities: the Independent Samoa and American Samoa. The Independent Samoa has two relatively large islands (Upolu and Savaii) and eight islets. American Samoa is comprised of five volcanic islands (Tutuila, Aunu'u, Ofu, Olosega, and Ta'u), one low-island (Swains Island) and a coral atoll (Rose Atoll). The five volcanic islands that are part of the American Samoa territory are very steep with mountainous terrain and high sea cliffs and of various sizes. Tutuila Island, the largest (137 km²) and most populated island, is the most eroded with the most extensive shelf area and has banks and barrier reefs. Aunu'u is a small island very close to Tutuila. Ofu and Olosega (together as 13 km²) are twin volcanic islands separated by a strait which is a shallow and narrow break in the reef flat. Ta'u is the easternmost island (45 km²) with a more steeply sloping bathymetry.

American Samoa has a population of around 55,500 and a growth rate of 1.2% (ASDOC 2012). This population growth rate is lower than several Pacific countries and roughly similar to New Caledonia and French Polynesia. For approximately three thousand years, the Samoans have relied on the ocean for their sustenance with a culture that revolves around fishing. Fishing activities constitute an integral part of the *fa'asamoa* or the Samoan culture and fisheries resources are used in cultural ceremonies. For instance, ceremonies on chiefly position entitlements use fish during these cultural events. *Atule* fishing is a community activity tinged with legends and the distribution of the catch follows traditional protocols.

The fisheries in American Samoa can be broadly categorized in terms of habitat and target species as pelagic fisheries, bottom-fishing in mesophotic reefs, and the nearshore coral reef fisheries. Fisheries is either subsistence (fishing from shore and mostly for personal consumption) or commercial (may use a boat and catch mostly sold). Bottom-fishing is actually a combination of mesophotic reef fishing and/or pelagic fishing (trolling). The coral reef fishery involves gleaning, spearfishing (freedive from shore or boat-based), rod and reel using nylon lines and metal hooks, bamboo pole, throw nets, and gillnets. Fisheries development is of great importance to the food security and economic stability of the territory.

Climate change, land-based pollution, and fishing are the three main threats to the fisheries resources in the territory. Climate change is a global phenomenon predicted to lead to general adverse changes in productivity, coral reef habitat loss, and decline in fisheries. Sedimentation and debris are the major land-based pollution sources. Both are products of unsustainable land use brought about by an increasing population. Sedimentation is a serious threat because it impacts nearshore fish recruitment from degradation of these habitats. Fishing has been identified as a major factor that has led to the decline in the number of sharks and other big fish which are slow to recover to any level of fishing.

Economically important nearshore invertebrates such as giant clams and sea urchins have also declined based on anecdotes.

Research and initiatives towards sustainable management of the fisheries in American Samoa derive funds from federal sources (e.g., the NOAA Coral Reef Conservation Program, Fish and Wildlife Service) and commercial fishing excise tax. However, the 1976 Magnuson-Stevens Fishery Conservation and Management Act also provides American Samoa with the ability to receive funds from foreign fishing agreements with distant-water fishing nations. Section 204(e) of the Act states that fees collected under a foreign fishing agreement (referred to in the Act as a Pacific Insular Area Fishery Agreement or PIAFA) allowing foreign fishing in the EEZ around American Samoa will be deposited into the treasury of the American Samoa Government. In the case of fishing violations occurring within the EEZ, fines or penalties imposed under the Act, including sums collected from the sale of property seized, will also be deposited into the American Samoa's treasury. Furthermore, the Magnuson-Stevens Act declares that a PIAFA permitting foreign vessels to fish in the EEZ surrounding American Samoa can be negotiated only with the concurrence of, and in consultation with, the Governor of American Samoa. No PIAFA will be entered into if it is determined by the Governor that the agreement will adversely affect the fishing activities of the indigenous people of the islands.

The Magnuson-Stevens Act specifies that the amounts deposited in the treasury are available, without appropriation or fiscal year limitation, for the purpose of conducting marine conservation projects. Proposed marine conservation projects must be detailed in a 3-year marine conservation plan. This document is American Samoa's marine conservation plan (MCP) describing how the American Samoa Government proposes to allocate funds obtained under a PIAFA or collected from fisheries violations for the period 2021-2024. The MCP has been developed in accordance with guidelines provided by the Western Pacific Regional Fishery Management Council (WPRFMC) and National Marine Fisheries Service (NMFS) and is consistent with the requirements of the Magnuson-Stevens Act. The plan sets forth objectives that cover a broad range of fishery conservation and management issues and initiatives. The projects listed are designed to help achieve these objectives.

II. MARINE CONSERVATION PLAN OBJECTIVES AND PROJECTS

The following are the objectives of the identified priority projects of the American Samoa Marine Conservation Plan. The objectives are consistent with the Magnusson-Stevens Fisheries Conservation and Management Act. Each objective has a list of prioritized projects and each project has an evaluative criterion that measures how it addresses the objective. The projects encompass aspects of fisheries research, management, and development, education and outreach, and enforcement.

Objective 1: Maximize social and economic benefits through sustainable fisheries

Project	Priority Level
<p>1. Enhancement of fishing infrastructure (e.g. docks, ramps, moorings, ice machines, fish storage, processing facilities, and fish markets)</p> <p>Evaluative Criterion: Improved and additional fishing infrastructures that provide benefits to the fishermen.</p>	Very high
<p>2. Enhancement of fisheries development in Manu'a (reviving the fishermen's co-ops, repair of alia boats and replacing the ice machines, developing the fish storage/holding facilities, and shipment of fish for local markets.)</p> <p>Evaluative Criterion: Hiring of managers for each of the co-op in Ta'u and Ofu-Olosega, alia boats repaired and ice machines replaced and fish storage facilities developed. The aim is to ship the fish to Tutuila which is the main market.</p>	Very High
<p>3. Development of fish canning, preservation and packing technologies especially for the Manu'a Islands</p> <p>Evaluative Criterion: Local communities in Manu'a trained in fish canning and eventually fish canned to identified markets.</p>	High
<p>4. Promotion of sport fishing tournaments</p> <p>Evaluative Criterion: Sustained international sport fishing tournaments held in the territory to increase the profile of the territory as a fishing destination recognition of fishing as part of the <i>fa'asamoa</i> or Samoan way of life</p>	Medium

<p>5. Development and application of economically and ecologically sustainable mariculture technologies and development of broodstocks</p> <p>Evaluative Criterion: Mariculture and development of broodstocks (e.g., giant clams, sea urchins) not only promote other forms of fisheries but also enhances sustainable fisheries of exploited species from the wild.</p>	High
<p>6. Identification and development of markets for fishery resources</p> <p>Evaluative Criterion: Market feasibility research developed to identify fishery products for domestic and export markets and export markets identified.</p>	High
<p>7. Development of fishing technologies and boat design and construction.</p> <p>Evaluative Criterion: New vessels operating in the territory that replace the aging alia fleet. These vessels would be able to multiple fishing operations and equipped with bottom-fishing, trolling, and longline gear, capable of storing ice, and having various fishing and navigation technologies to improve efficiency and safety at sea. New or modified vessels in the domestic large vessel longline fleet capable of conducting diversified operations.</p>	High
<p>8. Training for fishermen (e.g., boat design, construction, repair and maintenance, fish handling)</p> <p>Evaluative Criterion: Trained fishermen will be able to fish more effectively and safely, increase fish catches, and produce better quality fish.</p>	High
<p>9. Provide fisheries subsidies for fuel, dockage, and repair</p> <p>Evaluative criteria: The use of funds increases fisheries participation and diversification determined in number of vessels and landings.</p>	Medium
<p>10. Develop seafood waste utilization programs</p> <p>Evaluative criteria: Established seafood waste collection and utilization programs for use in agriculture and aquaculture applications</p>	Medium
<p>11. Establish a fishermen lending program</p> <p>Evaluative criteria: Increased number of fishermen and diversified fishing activities.</p>	Low

<p>12. Conduct feasibility and pilot sustainable aquaculture projects using appropriate species</p> <p>Evaluative criteria: Appropriate aquaculture species identified from feasibility assessment and pilot sustainable aquaculture projects established</p>	High
<p>13. Conduct a comprehensive economic valuation of the contribution of the various aspects of the tuna fisheries (cannery, longline, purse seine) to the American Samoa economy and GDP</p> <p>Evaluative criteria: Economic contribution of tuna fisheries to local economy evaluated to provide support for American Samoa as a Small Island Developing Territory</p>	Very high

Objective 2: Support quality scientific research to assess and manage fisheries

Project	Priority Level
<p>1. Enhance research to understand population trends and support fishery stock assessment for territory priority species</p> <p>Evaluative Criterion: Continuous improvement on creel survey methodologies, biosampling, tagging, and regular stock assessment conducted for territory's priority species.</p>	High
<p>2. Enhancement, development and acquisition of new technologies and platforms to advance fisheries data collection</p> <p>Evaluative Criterion: Feasibility studies conducted on relevance of new technologies and their application to fisheries surveys. Deploy new data collection platforms in the field and enhance database systems.</p>	High

<p>3. Development and enhancement of infrastructure to support fisheries research Evaluative Criterion: Continue to improve the DMWR infrastructure building and to acquire needed platforms (e.g., research boat) for fisheries scientific research.</p>	High
<p>4. Training for local staff on fisheries research Evaluative Criterion: Staff trained on relevant fisheries research methodologies.</p>	High
<p>5. Conduct basic scientific research on the biology of various bottomfish species Evaluative criteria: Life history data for various bottomfish species</p>	High

Objective 3: Promote an ecosystem approach in fisheries management

Project	Priority Level
<p>1. Development of technologies on coral reef ecosystem rehabilitation, including active coral restoration Evaluative Criterion: Habitat status assessment and monitoring and, if necessary, a rehabilitation program are in place towards sustainable harvest of goods and perpetuation of ecological services from this biologically diverse ecosystem.</p>	High
<p>2. Research and monitoring of red tides Evaluative Criterion: Research and monitoring of red tides to support an ecosystem-approach to fisheries management.</p>	Low

Objective 4: Recognize the importance of island culture and traditional fishing in managing fishery resources and foster opportunities for participation

Project	Priority Level
1. Promoting traditional fishing practices Evaluative Criterion: Promotion of traditional fishing practices in recognition and preservation of cultural practices and traditional knowledge as part of fisheries management. This would include support for workshops for making traditional fishing tools.	High
2. Support <i>palolo</i> , <i>iasina</i> and <i>atule</i> surveys Evaluative Criterion: <i>Palolo</i> and <i>atule</i> surveys to document traditional fishing and cultural practices towards an integrated territorial creel survey program.	High

Objective 5: Promote education and outreach activities and regional collaboration regarding fisheries conservation

Project	Priority Level
1. Training for local staff and scholarships in marine biology and fisheries and other related courses Evaluative Criterion: Relevant training for staff involved in fisheries management to enhance local capacity in understanding and implementing research and fisheries regulations.	High
2. Development and enhancement of educational materials/modules to increase awareness on coral reefs and fisheries Evaluative Criterion: Development of education materials/modules to support education and outreach for fisheries management.	High
3. Enhancing regional cooperation with regional agencies and partners through scientific research and meetings Evaluative Criterion: Regional scientific research and meetings to provide platforms for regional collaboration in coastal resource management.	High

Objective 6: Encourage development of technologies and methods to achieve the most effective level of enforcement and to ensure safety at sea

Project	Priority Level
1. Enhance enforcement and surveillance capabilities, especially for marine protected areas Evaluative Criterion: Increased surveillance activities in marine protected areas.	High
2. Training for enforcement staff Evaluative Criterion: Fisheries enforcement training for staff	High
3. Development and enhancement of educational technologies to increase awareness on fisheries regulations Evaluative Criterion: Application of relevant technologies to increase awareness of fisheries regulations.	High
4. Support and ensure access to international, regional, and national fisheries surveillance data Evaluative Criterion: DMWR staff has security access on these various fisheries surveillance data.	High
5. Acquisition of appropriate platforms to enhance surveillance and monitoring; search and rescue; offshore boardings, inspections and investigations; marine mammal strandings; and salvaging of derelict boats, monitoring and patrol around the AS EEZ Evaluative Criterion: Appropriate platforms used to enhance surveillance and monitoring around AS EEZ	High
6. Development and enhancement of infrastructure to support surveillance and monitoring Evaluative Criterion: Infrastructures developed to support fisheries enforcement and surveillance	High

REFERENCES

- Birkeland CE, Randall RH, Wass RC, Smith BD, Wilkins S (1987) Biological resources assessment of the Fagatele Bay National Marine Sanctuary. NOAA Technical Memorandum Series NOS/MEMD No. 3. 232p
- Brainard R et al. (2007) Coral reef ecosystem monitoring report for American Samoa, 2002-2006. Coral Reef Ecosystems Division, NOAA Special Report NMFS PIFSC
- Department of Marine and Wildlife Resources (2006) A comprehensive strategy for wildlife conservation in American Samoa. (RCB Utzurrum, JO Seamon, K Schletz: authors). Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799
- Dolar MLL (2005) Cetaceans of American Samoa. Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799
- Dolar MLL (2006) Marine mammal survey and training workshop in survey methodology. Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799
- Dolar MLL (2007) Protocol for the abundance survey of cetacean in the coastal waters of American Samoa using a boat-based line transect method and program DISTANCE for analysis. Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799
- Green AL (1996) Status of the coral reefs of the Samoan Archipelago. Report to the Department of Marine and Wildlife Resources, American Samoa 96799,
- Green AL (2002) Status of coral reefs on the main volcanic islands of American Samoa: a re-survey of long-term monitoring sites (benthic communities, fish communities, and key macroinvertebrates). Report to the Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799, 86 pp.
- Houk P and Musburger C (2007) Assessing the effects on non-point source pollution on American Samoa's coral reef communities. American Samoa Environmental Protection Agency, Pago-Pago, American Samoa 96799
- Iose PK and McConnaughey J (1993) Fishery Resources in Pala Lagoon. Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799
- Johnston DW, Robbins J, Chapla ME, Matilla DK, Andrews KR (in press) Visual surveys for odontocete cetaceans in the waters of American Samoa, 2003-2006. *Journal of Cetacean Research and Management*
- NOAA National Centers for Coastal Ocean Science (NCCOS) (2005) Atlas of the shallow water benthic habitats of American Samoa, Guam, and the Commonwealth of the Northern

Marianas Islands. NOAA Technical Memorandum NOS NCCOS 8, Biogeography Team. Silver Spring MD, 126 pp.

Ponwith BJ (1992) The Pala Lagoon subsistence fishery. Biological Report Series No: 27, Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799

Sabater MG and Tofaeono S (2006). Spatial variation in biomass, abundance, and species composition of “key reef species” in American Samoa. Revised Edition. Biological Report Series no 2006-2. Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799. 58 pp.

Wass RC (1982) Characterization of inshore Samoan fish communities. Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799. 48 pp.

Whaylen, L. and Fenner, D. (2005). Report of 2005 American Samoa Coral Reef Monitoring Program (ASCRMP). Report to the Department of Marine and Wildlife Resources, American Samoa 96799. 40 pp.

Yamasaki G, Itano D, Davis R (1985) A study of and recommendations for the management of the Mangrove and lagoon areas of Nu'uuli and Tafuna, American Samoa. Department of Marine and Wildlife Resources, Pago-Pago, American Samoa 96799