



**FY2024 Government of Guam Appropriation Report
Prepared by:**

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For more information about the UOG Sea Grant Program, visit:
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University of Guam Center for Island Sustainability and Sea Grant

The National Sea Grant College Program is a partnership between universities and the federal government's National Oceanic and Atmospheric Administration (NOAA), an agency within the Department of Commerce. The Sea Grant network includes more than 3,000 scientists, engineers, public outreach experts, educators, and students from over 300 institutions, representing 33 programs in states and territories.

The mission of UOG Sea Grant is to integrate and apply research, extension, and education activities to sustain and develop island environments while integrating knowledge and cultural perspectives of island people.

In 2022, NOAA designated UOG as a Sea Grant Institute after a rigorous review of program excellence and the required commitment of local matching funds demonstrated by the Guam Legislature's annual \$500,000 appropriation. The University of Guam is now both a Land Grant and Sea Grant Institution. The \$500K local investment brings in \$1.3million annual in direct federal funding from NOAA and leverages millions more in funding.

The local appropriation funds the core UOG Sea Grant program staffing, including the director, two faculty positions, a program leader, fiscal officer, and admin support staff. Additionally supplies and equipment, and facilities upgrades and maintenance to support the growing grant-supported staff and programs.

The core UOG Sea Grant team ensures program objectives are following the National Sea Grant's four focus areas: Healthy Coastal Ecosystems (HCE), Sustainable Fisheries and Aquaculture (SFA), and Environmental Literacy and Workforce Development (ELWD), and Resilient Communities and Economies (RCE).

Project Objectives

- Administer and manage the 2024-2027 UOGSG Omnibus;
- Plan and develop future programs;
- Review and evaluate ongoing programs and completed projects;
- Bring university, community, industry, and Sea Grant resources together to facilitate the best use of ocean and coastal resources in Guam and the Micronesia region of the Pacific.
- To allocate resources, including budget, personnel, and technology, in an efficient and equitable manner to support program goals.
- To manage the organization's budget effectively, including budgeting, financial reporting, and fiscal responsibility.
- Develop and maintain a skilled and motivated workforce through training, professional development, and performance evaluations.
- To foster positive relationships with internal and external stakeholders, including clients, partners, and the community.

- To implement practices that minimize the organization's environmental footprint and promote sustainability.
- To ensure clear and transparent communication within the organization and with external stakeholders.
- To promote diversity, equity, and inclusion within the workplace, including recruitment, retention, and career advancement.
- To engage with the local community, including participating in community service and support activities.

The NOAA Sea Grant \$1.3million and additional leveraged federal dollars provide substantial programming:

UOG Sea Grant Implementation Programs

Bringing Aquaculture and Aquaponics into our Community

FY2024 was a pivotal year for the Sea Grant Aquaculture and Aquaponics program with the establishment of the Community Based Aquaculture Systems (CBAS) program began their workshop series. These workshops welcomed applicants to UOG and the Aquapark to learn about the set up and the process to establish and maintain a healthy and thriving aquaponics system in one's backyard.

To date, there have been 12 CBAS training sessions (40 hours total) with an average of 28 participants per class. There have also been four aquaculture systems installed at non-profit organizations around the island including: Island Girl Power in Dededo, Sagan Kotturan Chamorro in Tumon, Harvest Church Community in Mongmong-Toto-Maite, and the Jeremy Newby Center in Talofofo.

The Aquaculture team hosts regular outreach where participants can learn about aquaculture via 3 large-scale aquaponic demonstration systems at the UOG Aquapark which has the capacity to raise 350 fish and grow 832 leafy greens per system.

Guam Climate Pollution Reduction Grants (CPRG) Program

UOG CIS and SG, with the Office of the Governor, and the Climate Change Resilience Commission (CCRC) developed Guam's Priority Climate Action Plan through the funding of EPA's Climate Pollution Reduction Grants (CPRG) program. The PCAP will improve the understanding of greenhouse gas emissions, adopt policies and programs to reduce greenhouse gas emissions that affect people's livelihoods, encourage climate change resilience, and build a clean energy economy.

The project team conducted various forms of outreach regarding the PCAP to various local agencies, stakeholders, and the public. Outreach was conducted through meetings, public outreach events, and the Conference on Island Sustainability (CIS2024). This plan is an important step towards accelerating emissions reductions and strengthening climate change resilience for Guam. This plan is also an important

component to access millions of additional federal dollars for Guam that will work towards greenhouse gas pollution reduction.

Understanding Community Perception Around Ocean Renewable Energy

In partnership with Pacific Northwest National Laboratory (PNNL) and the National Oceanic and Atmospheric Administration to learn about the residents of Guam's perceptions, understanding, and values pertaining to ocean renewable energy to ensure a smooth transition to 100% renewable energy by 2045. This project will produce a cost-effective analysis on Guam's capacity to transition to renewable energy methods, specific to ocean energy.

Since the start of this project, the team has coordinated various stakeholder engagement efforts across various government agencies, energy organizations and local groups (eg. Fishery groups) to discuss perceptions of marine energy options available to Guam.

Energy and Environmental Justice (CCEEJ)

The UOG CIS and SG officially announced their partnership with San Diego State University to provide communities in Guam and Micronesia energy and environmental justice related technical assistance through the Center for Community Energy and Environmental Justice. UOG CIS and SG facilitates access for our local community to a variety of technical experts from East-West Center in Hawaii, SDSU, Arizona State University, and others.

Community-based Fisheries Data Collection

Fishing around the reefs of Guam is an integral part of life, culture, and society. Yet, annual volumes of fisheries-dependent data collected by local resource managers remains small. The Guam Sea Grant Fisheries team initiated, and continues to maintain, its own unique fisheries-dependent database which employs partnership-based techniques with members of the fishing community to collect catch-and-effort information on Guam's reef-fisheries. The project aims at improving the quality of fisheries-dependent data collected in Guam through a community-based program.

Approximately 40 members of the fishing community contributed data over the one-year period. Guam SG fisheries biologists work on establishing long-term partners interested in independently submitting catch photos and/or inviting biologists to measure and collect data on-site post-fishing event. Over the one-year period, ~1700 individual fish measurements were submitted by community members, comprising 63 different species of reef fish.

Guam Fisheries Management Plan

Together with the Guam Department of Agriculture Division of Aquatic and Wildlife Resources (DoAg DAWR) and University of Guam Marine Lab, Guam Sea Grant is in the process of assisting in the planning and development of the Guam Fisheries Management Plan (FMP). The Guam Sea Grant Fisheries team's role is to facilitate discussions about the FMP with the fishing community. Due to Sea Grant's niche in

extension and outreach, we have utilized our skills through our important role by bridging the science and management of fisheries to the fishing community.

Tabling outreach, one-on-one discussions, and social media have been the means of communicating the FMP to the wider community. Collaborators include researchers with the UOG Marine Lab. Key elements include the who, what, why, when aspects of the FMP to maintain transparency of the process to the fishing community. Social media posts on the FMP totaled 11,643 views and over 70 re-shares. Sixty-two individuals from the fishing community had one-on-one conversations about the FMP with Sea Grant fisheries biologists. The project team will continue to communicate with the fishing community about FMP updates to maintain transparency with the process.

Sea Turtle Monitoring, Protection and Outreach

The Sea Turtle Monitoring program continues to make progress in protecting and understanding Guam's endangered sea turtle population. Building on years of research and conservation efforts, the program remains dedicated to preserving the native species of the Marianas, the green sea turtle and the hawksbill sea turtle. The turtle biologists have been able to work with partners and volunteers to monitor tag 7 sea turtles on Guam shores. These turtles now become a part of the database that are monitored throughout the year to learn more about migration, settlement and to ensure the safety of the sea turtle population in Guam. Biologists conduct daily land surveys to prep and protect active nesting grounds and conducts outreach within the community. During FY2024, the team conducted classroom outreach presentations on sea turtle species to 1,612 students at 18 schools (grades P-12).

Guam Restoration of Watersheds (GROW)

UOG CIS and SG continues to address human activities that accelerate the erosion process in the Ugum watershed located in Inalahan, Guam by utilizing both traditional and innovative conservation methods. Watershed restoration efforts were expanded with the launch of the Guam Restoration of Watersheds (GROW) Initiative through the USDA Conservation Innovation Grant. The GROW team continues to propagate and care for the plants in the nursery for future out planting events. In addition, the team continues to monitor and maintain the Ugum project site. 16,838 seedlings have been planted within the project site. The unmanned aerial vehicle (UAV) was deployed for multiple seed dispersal flights. This innovative approach proved to be efficient in dispersing seeds in remote badland locations thus far, 34,500 seeds have been dispersed within the Ugum watershed.

FY2024 Local Appropriation Actual Expenditure Summary

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Salaries and Fringe for key Senior Personnel, UOGSG Faculty, Research Coordinator, and Outreach & Community Engagement Staff <ul style="list-style-type: none"> • Director (1.0) FTE – Oversight of UOG CIS/SG • Associate Director for Communications (0.3 FTE)- develop materials for education and community engagement • UOGSG Research Coordinator & Marine Extension Faculty (1.0 FTE) – facilitate competitive research competitions, teach marine courses, act as mentor for UOGSG funded students • Program Leader – Lead program activities and reporting for the CIS and Sea Grant programs. 	\$441,092.26
General supplies and materials for UOGSG activities Funds for supplies and operations will support office and field supplies, printer/copier lease, gas and vehicle maintenance, and phone service.	\$1,978.39
Small equipment and furniture for UOGSG operations Funds for small equipment and furniture to support program operations.	\$8,506.00
Contractual Services Electrical upgrade and monitoring services,	\$5,365.00
Contractual - Construction Design of planned renovation of UOGSG office spaces in Dean's Circle – which require infrastructure improvements to provide adequate workspaces, alleviate mold and asbestos, ensure ADA compliance, etc.	\$43,058.35
TOTAL	\$500,00