



2026
**REPORT TO
THE BOARD
OF REGENTS**

**COOPERATIVE RESEARCH
& EXTENSION**

CRE MISSION STATEMENT

The Cooperative Research and Extension's mission is to enhance accessible, innovative, and resilient development in agriculture, aquaculture, nutrition, community empowerment, and youth and family well-being, while advancing climate change adaptation. Through research, education, and extension, we collaborate with stakeholders to support the College's mission and FSM's socioeconomic and environmental priorities and long-term goals.

**COOPERATIVE RESEARCH
AND EXTENSION**

BUILDING RESILIENT COMMUNITIES

CROP EXTENSION PROGRAM

- **Regional Capacity Building:** Trained 148 participants across the region, including 130 growers via targeted home visits and technical workshops, alongside 18 individuals enrolled in specialized crop development tracks.
- **Youth Agricultural Integration:** Partnered with early childhood education systems to implement practical gardening projects. Fourteen young students engaged in hands-on transplanting activities, establishing 30 Chinese cabbage seedlings and mastering basic irrigation and crop care protocols.
- **Applied Field Research & Trialing:** Conducted localized agricultural experiments utilizing marine resources as organic alternatives. The team evaluated the efficacy of native seagrass as a natural fertilizer across 8 sweet potato garden beds, comparing the resulting yields against standard market benchmarks to identify cost-effective, local production methods.
- **Institutional Knowledge Transfer:** Advanced staff technical capabilities through specialized training with the University of Guam, focused on mitigating sweet potato viral pathogens. Certified personnel successfully brought this knowledge back to local fields to safeguard regional crops from disease.
- **Economic Livelihood Generation:** Strategic advisory services and material distribution directly enabled immediate commercial returns. Cultivators who acquired soil-mixing and seed-sprouting proficiencies early in the quarter successfully brought cucumbers, tomatoes, cabbage, beans, and onions to market by April and May. Notably, a local grower generated \$1,835.50 this quarter by producing and selling 735 Chinese cabbages.

Program Activities



Regional Capacity Building

Trained participants across the region, including growers and individuals in specialized tracks.



Youth Agricultural Integration

Partnered with education systems to implement gardening projects for young students.



Applied Field Research

Conducted experiments using marine resources as organic fertilizers for sweet potatoes.



Institutional Knowledge Transfer

Advanced staff capabilities through training focused on mitigating sweet potato viral pathogens.

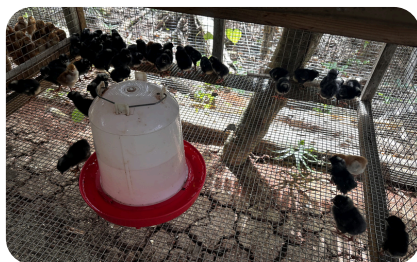


Economic Livelihood Generation

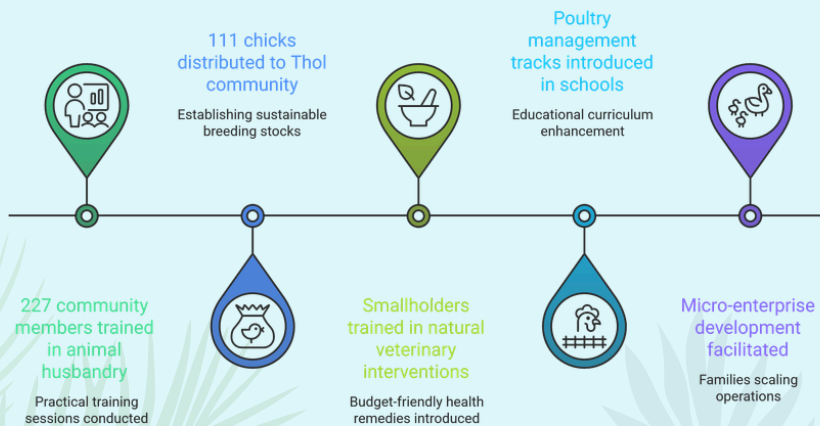
Provided advisory services and material distribution for immediate commercial returns.

POULTRY EXTENSION PROGRAM

- **Community and Youth Engagement:** Deployed practical animal husbandry training to 227 community members, including 116 students and farmers, reached through targeted campus visits and backyard production workshops.
- **Flock Distribution Milestones:** Distributed 111 high-quality chicks—comprising Rhode Island and Plymouth breeds—to the Thol community under the Green Climate Fund (GCF) project to establish sustainable local breeding stocks.
- **Natural Veterinary Interventions:** Trained smallholders in budget-friendly, natural health remedies utilizing Aloe Vera and brown sugar formulations. This low-cost intervention successfully treated avian illnesses and minimized livestock mortality rates without relying on expensive imported pharmaceuticals.
- **School-Based Livestock Training:** Introduced poultry management tracks into elementary school curricula at Enipein and Wone. Educational testing confirmed that 80% of participating students successfully mastered foundational poultry production principles by the conclusion of the instructional block.
- **Micro-Enterprise Development:** Technical coaching facilitated rapid flock expansion, with families scaling operations from small backyard setups to managed holdings of over 60 birds. This growth generated immediate cash returns: producer Carmen Muguy earned \$438.80 from the sale of 57 dozen eggs, 8 chicks, and 4 roosters, while Paul Waayan secured \$110.00 through local egg sales.



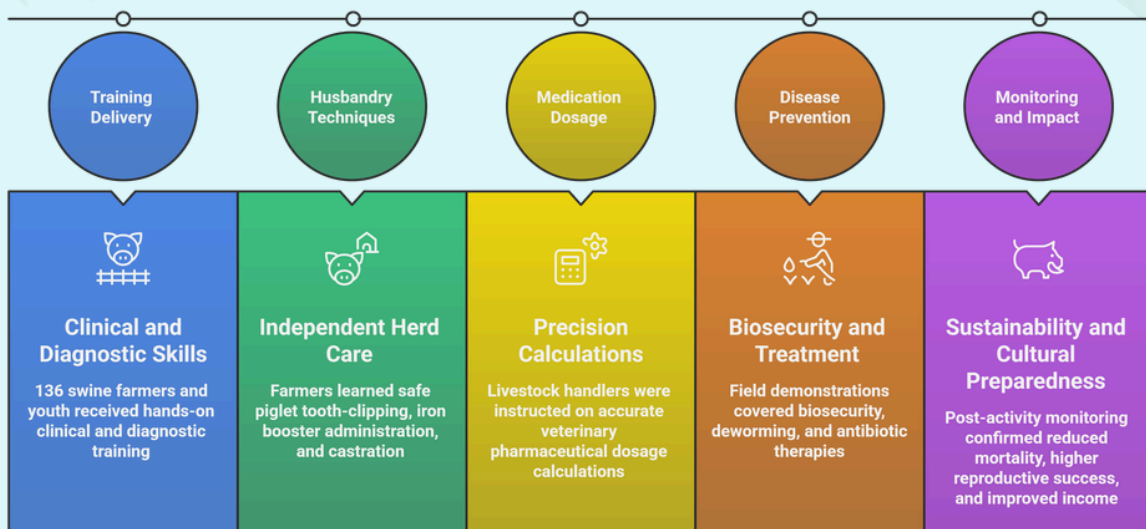
Empowering Communities Through Livestock Development



SWINE EXTENSION PROGRAM

- **Producer Skills Advancement:** Delivered hands-on clinical and diagnostic training to more than **136 swine farmers and youth**, significantly increasing local management capacity.
- **Technical Husbandry Training:** Conducted applied training sessions enabling farmers to perform essential herd-care procedures independently, including safe piglet tooth-clipping, iron booster administration, and proper castration techniques to improve terminal meat quality.
- **Precision Medication Dosage:** Instructed livestock handlers in animal weight estimation and accurate veterinary pharmaceutical calculations to prevent medication waste and eliminate the risks of under- or over-dosing stock.
- **Proactive Disease Prevention:** Executed widespread field demonstrations on standard biosecurity and herd health protocols, using targeted deworming treatments to clear parasite loads and applying appropriate antibiotic therapies to treat active illnesses.
- **Herd Sustainability and Cultural Preparedness:** Post-activity monitoring confirmed that improved recordkeeping and husbandry standards directly reduced livestock mortality. Growers reported higher reproductive success, enhanced income from piglet sales, and the reliable availability of premium stock for critical family and community cultural obligations.

Key Milestones in Swine Farmer Training and Herd Improvement

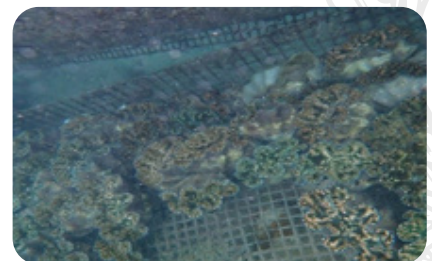


AQUACULTURE EXTENSION PROGRAM

- **Regional Marine Training:** Successfully trained **248 future and current marine producers**, comprising 127 students and teachers reached through structured classroom sessions, alongside 121 students, educators, and farmers engaged through applied field activities.
- **On-Site Hatchery Instruction:** Hosted technical site workshops at the Yap hatchery facility to expose students and educators to live seawater infrastructure, larval rearing systems, and floating fish cages. Additionally, conservation outreach events engaged **72 early childhood students and 15 teachers** in preserving sustainable marine resources.
- **Verifiable Academic Gains:** Student learning outcomes were confirmed through structured pre- and post-training evaluations. Participants achieved a **72% average score on final technical assessments, with separate cohorts demonstrating a 6.1% increase in knowledge regarding sustainable seafood production methods.**
- **Direct Farmer Field Support:** Provided critical in-water technical assistance to **20 active growers**, conducting routine health surveys and population monitoring across local giant clam plots to optimize growth and mitigate crop loss.
- **Public Outreach and Collaboration:** Showcased marine initiatives at major community cultural festivals to stimulate local commercial interest. Concurrently, staff partnered with regional colleges and international researchers to share advanced hatchery methods, with a focus on specialized live-feed production for juvenile marine species.
- **Resource Management Integration:** Held strategic consultations with marine resource divisions to align community farming efforts with official conservation goals, ensuring that small-scale ocean production actively helps restock wild lagoon ecosystems.



Outreach to schools and hatchery tour for students.



Monitoring community farms.

YOUTH EXTENSION PROGRAM

- **Clean Water Access:** Partnered with relief networks to **install water filtration and plumbing** across **8 schools**, creating **14 drinking stations** that secure safe water for up to **2,500 students and staff**.
- **Public Health Leadership:** Deployed **10 interns** to launch school water-safety clubs, training **40+ youth in water sampling**. Student leaders also hosted 8 workshops, **educating 338 citizens on sanitation**.
- **Academic Mentorship:** Provided continuous coaching to high school students, helping **40% of monitored students raise their GPAs**.
- **Workforce Certification:** Partnered with telecom programs to deliver safety training, resulting in **9 technical students earning official, internationally recognized OSHA 10-Hour Certifications**.
- **Youth Sports Expansion:** Grew youth sports leagues from **8 to 14 teams**, **engaging 234+ youth** in tournaments that foster fitness, discipline, and healthy coping skills.
- **Cultural Heritage & Income Generation: Paired elders with youth to preserve endangered traditional skills and generate household revenue:**
 - **Weaving:** Trainees produced crafts for Cultural Day, with one participant winning the **"Best Weaver" award** and generating immediate sales.
 - **Food Pounding:** **Six youth** mastered a rare ancestral food-preparation process, earning cash awards and recognition as community experts.



Academic mentoring for high school students, outreach during College Fair, and gardening classes with students.

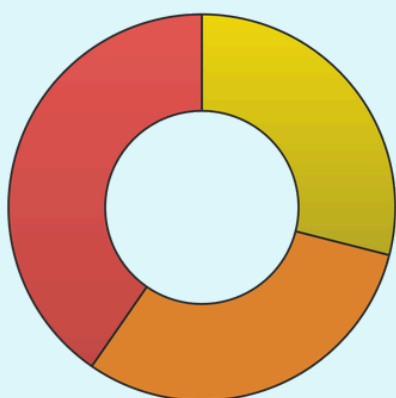


Youth OSHA training; Youth surveying community households and testing water; Youth training for entrepreneurial skills.

EFNEP PROGRAM (EXPANDED FOOD & NUTRITION EDUCATION)

- **Broad Demographic Impact:** Conducted comprehensive public health outreach reaching **649 total participants**, successfully educating 188 children, 199 youth, and 262 adults.
- **Atoll and Outer Island Interventions:** Deployed nutritional wellness workshops to remote island communities, equipping isolated populations with practical skills in portion control, balanced menu planning, and food safety.
- **Dietary Risk Mitigation:** Led targeted educational campaigns focused on reducing sugar, salt, and processed food consumption, helping participants minimize the risk factors associated with chronic lifestyle diseases.
- **School Wellness Curriculum:** Implemented structured nutrition lessons across multiple regional schools, educating youth on the critical links between native agricultural crops, balanced nutrition, and community self-reliance.
- **Applied Health Competitions:** Facilitated interactive nutrition challenges and food preparation events that incentivized youth and families to reduce sugar intake and consciously select healthy local foods.
- **Institutional Health Alignment:** Hosted strategic coordination meetings with regional health agencies, school administrations, and institutional stakeholders to strengthen local cooperation and build long-term capacity for public health initiatives.

Distribution of Participants by Age Group



188 Children
Young individuals participating in outreach



199 Youth
Adolescents and teenagers in outreach



262 Adults
Older individuals involved in outreach

Program Activities

Atoll and Outer Island Interventions

Nutritional wellness workshops for remote island communities.



School Wellness Curriculum

Nutrition lessons educating youth on native crops and balanced nutrition.



Institutional Health Alignment

Coordination meetings with regional health agencies and stakeholders.



Dietary Risk Mitigation

Educational campaigns to reduce sugar, salt, and processed food consumption.



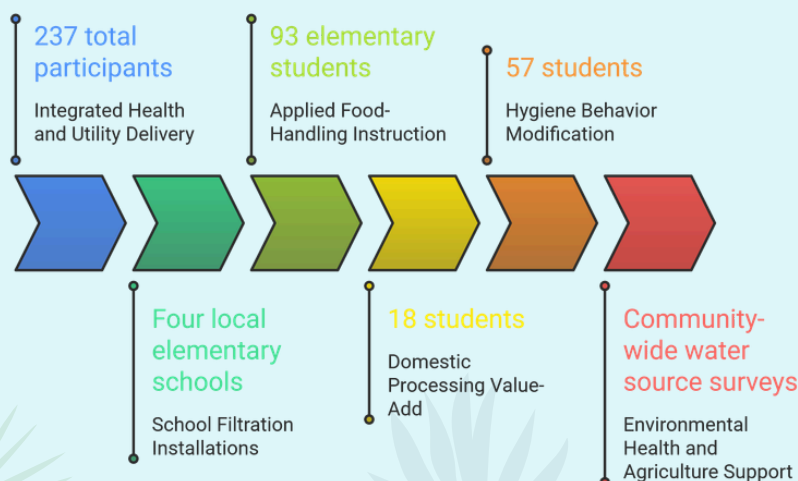
Applied Health Competitions

Interactive nutrition challenges and food preparation events.

FOOD & WATERBORNE EXTENSION PROGRAM

- **Integrated Health and Utility Delivery:** Provided combined sanitization training and infrastructure support to **237 total participants** across multiple schools.
- **School Filtration Installations:** Successfully upgraded water infrastructure at **four local elementary schools by installing water filtration units and dedicated sinks**, alongside distributing PVC piping materials to secure clean drinking-water networks.
- **Applied Food-Handling Instruction:** Delivered targeted food safety training to **93 elementary students** across Gagil, St. Mary's, and Dalipebinaw schools, achieving a **100% success rate in post-tests**.
- **Domestic Processing Value-Add:** Taught practical food safety and preservation methods using locally available produce, including banana, papaya, pumpkin, pineapple, and coconut embryos. Follow-up reviews confirmed that **18 students** successfully integrated these food processing techniques into their home kitchens.
- **Hygiene Behavior Modification:** Facilitated structured handwashing demonstrations to eliminate high-risk sanitary practices, resulting in **57 students** adopting consistent personal hygiene routines involving the regular use of clean water, tissues, napkins, and hand sanitizers.
- **Environmental Health and Agriculture Support:** Conducted community-wide water source surveys and provided household advisory services. These activities successfully helped local farmers integrate proper sanitation practices into food cultivation, resulting in increased crop production and stronger food security.

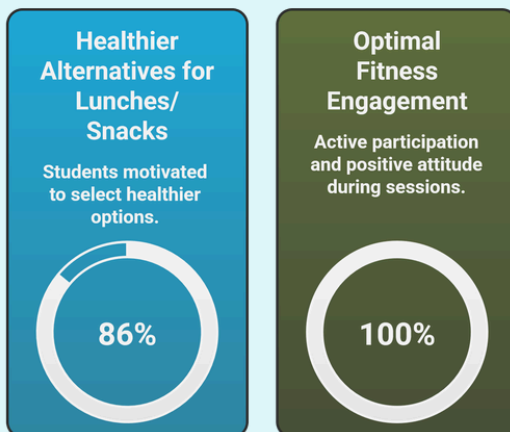
Enhancing Health and Food Security in Local Communities



CHILDHOOD OBESITY EXTENSION PROGRAM

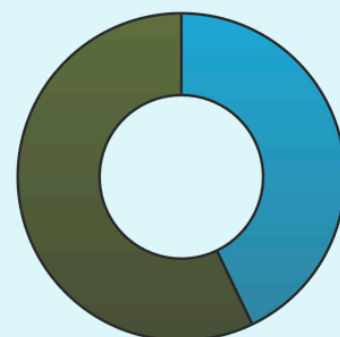
- **Active Student Enrollment:** Enrolled **28 primary students** (12 males and 16 females) in intensive fitness, wellness, and nutritional training tracks to mitigate early health risks.
- **Movement-Based Fitness Routines:** Implemented structured physical activity blocks, including organized ball games, group choreography, and coordination exercises, helping children stay active while cultivating teamwork.
- **Nutritional Advocacy & Healthy Choices:** Conducted interactive classroom sessions on nutrient-dense options, successfully motivating 86% of participating students to choose healthier alternatives for school lunches and snacks.
- **Traditional Food Promotion:** Organized dedicated "Local Food Day" campaigns to stimulate student interest in traditional local food and decrease dependency on low-nutrient imported snacks.
- **Optimal Fitness Engagement:** Students maintained **100% active participation and a positive attitude** throughout monitored school exercise sessions, thereby establishing consistent physical habits.
- **Institutional Capacity Building:** Coordinated directly with classroom teachers and school staff to integrate practical movement into the standard school day, building long-term institutional support for student health.

Student Wellness Program Impact



The program successfully engaged students in wellness activities, promoting healthy habits and institutional support.

Gender Distribution of Enrolled Primary Students (students)



12 Male
Enrolled male students

16 Female
Enrolled female students

MARKETING & EXPORT PROGRAM- IAS PROJECT

1. FSM GEF6 Invasive Alien Species (IAS) Project

Implemented in partnership with FSM R&D, GEF-6, and the UNDP, this initiative focuses on safeguarding biodiversity and food production from invasive threats.

- **Training Rollout:** Conducted 6 community training events in Kosrae State, reaching **66 participants** (47 males, 19 females).
- **Target Audiences:** Reached the Kosrae Farmers Association (Groups 1 & 2), Utwe Youth Farmers, Utwe Farmers, Tafunsak Farmers, and 14 agricultural extension staff members from the Department of Resources and Economic Affairs (DREA).
- **Curriculum:** Covered invasive species identification, farm monitoring, outbreak reporting, and management techniques to maintain the marketability of local products.

Next Steps: Training activities are slated to expand into Yap, Chuuk, and Pohnpei States in the upcoming quarter.



IAS Training with participants.

Kosrae State Training Events (Q2)

Date	May 24 & 27	June 12	June 13	June 14
Location	SBDC	Utwe Municipal Office	Tafunsak Municipal Office	DREA
Participants	21 Kosrae Farmers Association members	20 Utwe Farmers	11 Tafunsak Farmers	14 agricultural extension staff

MARKETING & EXPORT PROGRAM- GCF PROJECT

2. SAP020 Project (Food Processing & Preservation)

This initiative focuses on reducing food waste and building household capacity for value-added local food production.

- **Pohnpei State Expansion:** Following certification training with the Pohnpei Women’s Council, localized women facilitators led **16 community training events** spanning 6 municipalities (Kitti, Madolenihmw, U, Nett, Sokehs, and Kolonia), directly reaching 121 households.
- **Kosrae State Expansion:** Conducted 11 training sessions, **reaching 174 participants** (93 males, 81 females).
- **Skills Taught:** Handled practical preservation techniques, including food dehydration, proper handling, storage, and preparation of locally available crops.



Food processing training across different communities.

SAP020 Project Training

Characteristic	Training Events	Participants	Gender Distribution	Skills Taught
Pohnpei State	16	121 households	N/A	Food dehydration, handling, storage, preparation
Kosrae State	11	174 participants	93 males, 81 females	Food dehydration, handling, storage, preparation

AQUACULTURE RESEARCH

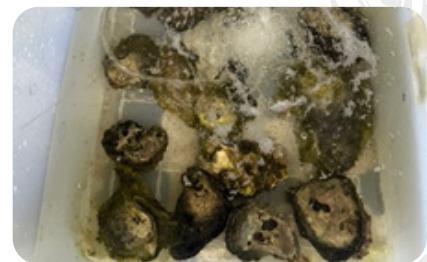
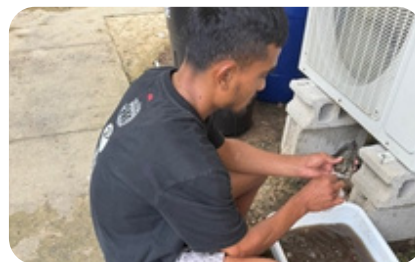
- **Securing Land for Hatchery:** Partnered with local governments to secure a 10-year land lease for a new seafood hatchery facility at Lelu Marine Park, expanding local research and production space.
- **Hatchery Upgrades & Repairs:** Overhauled the Nett Point hatchery by restoring power, improving water systems, and boosting biosecurity to create a safe, fully operational environment for breeding marine life.
- **Expanding Sea Cucumber Farming:** Successfully raised three new batches of sandfish (sea cucumber) in specialized tanks and floating cages. Started a new "shared space" farming trial to grow young sea cucumbers, marine fish, and native sea grapes together.
- **Boosting Local Crab Production:** Advanced a local mangrove crab breeding program and partnered with an international university in Thailand to share modern technical knowledge. Engaged 70 community members and applied for two major grants to expand production.
- **Growing Native Sea Grapes:** Identified four local types of healthy seaweed and successfully grew a popular local variety (sea grapes) in test tanks. Taught 35 community members how to grow their own through hands-on demonstrations.
- **Local Oyster Breeding Success:** Successfully bred and raised two local oyster species in natural waters. Taught 30 local farmers, students, and community members how to start their own practical oyster farms.
- **Community Leadership & Training:** Teamed up with local businesses to plan 15 new sea cucumber farms in Pohnpei. Project staff also completed advanced training in food security, laboratory safety, and climate change survival strategies.



Seaweed collection and small scale cultivation.



Stakeholder meeting for grant cooperation.



Prep work for laboratory and small scale cultivation trial.

AGRICULTURE RESEARCH

- **Saving & Multiplying Local Citrus:** Tested a tree-breeding method (air-layering) using six different soil mixes in Utwe and Lelu to grow healthier, faster-maturing local tangerines and thornless limes. This technique helps plants resist common tree diseases and reduces the island's reliance on imported fruits.
- **Testing Coconut Quality & Value:** Mapped out local palm groves and tested 100 coconut samples across Tafunsak and Tofol to measure meat thickness and weight. Identified six new, climate-resilient coconut types that will help local farmers boost their income and protect the island's long-term food supply.
- **Overcoming Dragon Fruit Farming Challenges:** Expanded dragon fruit growing trials to Kosrae after discovering that weather and pests caused major crop losses on a different island. Staff learned new pruning and watering techniques, multiplied healthy plant cuttings, and prepared specialized lighting equipment to help the fruit grow better in wet tropical weather.
- **Community Training & Better Jobs:** Shared technical farming guides with local families, home gardeners, and university staff. By teaching community members how to grow healthy fruits and coconuts, this project is creating new ways for families to earn money while promoting healthy diets across the region.



Healthy thornless lime plants growing strong roots and leaves in a soil test.



Measuring cut-open coconuts to check shell size and meat thickness.



Freshly picked coconuts sorted by color.



Caring for potted dragon fruit cuttings before planting them in the field.



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