

IMPACT



Center for Entrepreneurship: Fostering Local Innovation

Sharing the difference CRE makes in people's lives



Learning to Add Value to Local Products

"Having this hydroponic system on-site is a game changer, it'll bring fresh produce closer to our students and allow us to provide them with nutritious meals in a sustainable way." - Martin Carl, Principal of Xavier High School

Center for Entrepreneurship: Training and Education Impact

Participants					
Training Events	Pohnpei	Chuuk	Kosrae	Yap	Total
Food Technologies	516	145	263	234	1,158
Hydroponics Training	660	124	209	316	1,309
Total	1,176	269	550	472	2,467

Increased awareness and appreciation for local food: The "Go Local" cooking contest successfully raised awareness among young people about the benefits of consuming locally sourced food, such as improved health, reduced environmental impact, and economic sustainability.

Empowered youth and community members: By providing hands-on learning experiences and technical assistance, the Center for Entrepreneurship has empowered individuals to take control of their food future and contribute to community development.

Improved food security and nutrition: By promoting sustainable food production practices like hydroponics and value-added products, the Center is helping to ensure a reliable supply of fresh, nutritious food for FSM communities.

Economic development: The development of local food markets and value-added food products can create new economic opportunities and contribute to job growth in rural areas.

Cultural preservation: By encouraging the consumption of traditional foods and supporting local farmers, the Center is helping to preserve cultural heritage and traditions.

Relevance

The Federated States of Micronesia (FSM) faces significant challenges in its agricultural sector, including declining traditional knowledge, rising NCD rates, and the threat of pests like the Coconut Rhinoceros Beetle. To address these issues and improve the livelihoods of its people, the extension program aims to boost marketing and export activities. By training farmers, providing technical assistance, and developing export markets, this program will contribute to sustainable food production, economic growth, and improved health and well-being in the FSM.



Students Exploring Hydroponic Greenhouse Technology

Public Value Statement

The Center for Entrepreneurship is driving positive change in the Federated States of Micronesia by empowering communities to produce, preserve, and consume more local food, reducing reliance on imports. Through initiatives like hydroponics training and food processing workshops, the Center is fostering environmentally friendly practices and creating sustainable livelihoods. By promoting healthier diets and reducing the risk of non-communicable diseases, the Center is improving the overall well-being of the community. Ultimately, these efforts contribute to a more resilient and prosperous future for the FSM.



Yap World Food Day Public Outreach

Extension's Response

By addressing the critical issue of food security and promoting sustainable agricultural practices, the Center for Entrepreneurship's initiatives have had a significant impact on FSM communities. Through targeted training programs in food processing, preservation, and hydroponics, the Center has empowered individuals and communities to reduce reliance on imported goods, improve food quality and safety, and create sustainable livelihoods. By fostering a culture of local food consumption and production, the Center's work contributes to a healthier, more resilient, and economically vibrant FSM.



Xavier High School Receives Hydroponic System



Pohnpei World Food Day Public Outreach

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Enhancing Crop Production in FSM Communities

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Enhanced Crop Production Highlight & Impacts

Our initiatives have supported farmers in the following:

- Established 60 new demonstration gardens.
- Established 135 new home gardens.
- 18 commercial farmers had a total profit sale of \$44,581.75.
- Distributed 30 educational posters to promote home gardening.
- Farmers utilized compost to improve soil health and used agricultural waste as dry litter for pig pens to minimize waste run-off into rivers.
- Local farmer in Pohnpei created 13 jobs.
- Boosted local vegetable production by 13,000 pounds (Pohnpei).
- Kosrae increased use & adoption of organic fertilizer and utilized invasive Giant African Snail as fertilizer.
- 16 schools in Yap have a school vegetable garden with 3 ECE and 1 public Elementary school supplying their school cafeteria for student consumption.



Local Farmer in Pohnpei, FSM

<p>1 NO POVERTY</p>	<p>3 GOOD HEALTH AND WELL-BEING</p>	<p>5 GENDER EQUALITY</p>	<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	<p>13 CLIMATE ACTION</p>
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Relevance

The Federated States of Micronesia (FSM) grapples with a significant reliance on imported food products, contributing to a rise in non-communicable diseases (NCDs). This dependence, coupled with a decline in local food production, poses a serious threat to the nation's food security. Factors such as limited agricultural knowledge and skills, the affordability of imported goods, youth migration, and insufficient local food supply have hindered the adoption of sustainable agricultural practices. To address these challenges and promote healthier diets, it is imperative to invest in agricultural education, support local farmers, and encourage the consumption of locally sourced food.

Extension Response

The Department of Cooperative Research and Extension is committed to enhancing food security and sustainability. Through a comprehensive approach, we've provided hands-on training, technical support, and resources to a diverse range of stakeholders. By empowering individuals and communities with knowledge and skills in sustainable agriculture, we're working towards a future where FSM communities are self-sufficient in food production.



Yap Catholic High School receives gardening kit to Support School Garden– CRE & UNICEF partnership



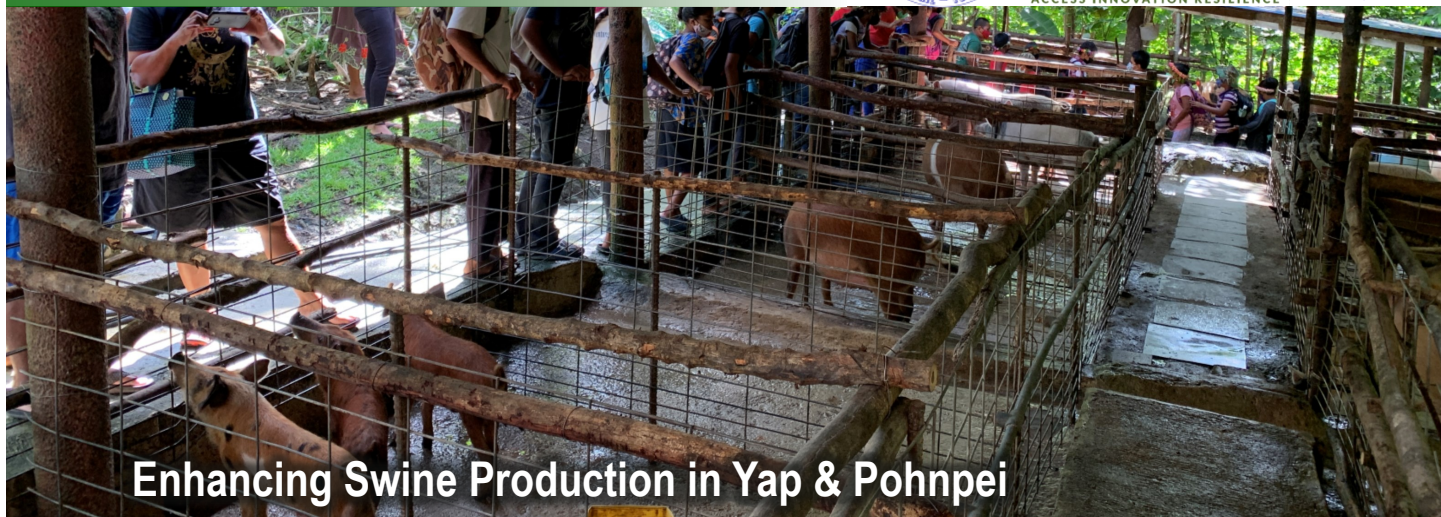
Community and school garden activities



Public Value Statement

The FSM faces food security and economic challenges due to reliance on imported food. This program aims to strengthen local food systems, empower communities, promote sustainable agriculture, boost rural economies, and improve nutrition by enhancing local crop production.

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Enhancing Swine Production in Yap & Pohnpei

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Relevance

The Federated States of Micronesia (FSM) faces a significant gap between local pork production and consumer demand. While pigs are a vital part of local culture and subsistence, commercial production remains limited. This reliance on imported pork products not only drains the local economy but also compromises food security and traditional practices. By supporting local pig farmers and improving their production practices, we can increase domestic pork supply, reduce reliance on imports, and strengthen the local economy.

Extension Response

The project successfully delivered comprehensive training on swine husbandry practices to a wide range of participants. Through 140 training sessions, we provided hands-on experience in:

- ⇒ Tooth clipping
- ⇒ Swine medication
- ⇒ Castration
- ⇒ Local remedy application
- ⇒ Live weight calculation

By equipping farmers with these essential skills, we have empowered them to improve their swine management practices, increase productivity, and contribute to the growth of the local pork industry.

Public Value Statement

CRE Empowers Communities:

Increased Client Reach: We served 299% more clients in FY 2024 (1,273) compared to FY 2023 (319).

Improved Animal Welfare: By training 16 clients in tooth clipping techniques, we not only reduced stress calls from struggling farmers but also empowered them to share this knowledge with their neighbors, fostering a more informed and supportive community.






This translates to a healthier livestock population and a reduced burden on farmers, contributing to a more sustainable and successful agricultural sector.



Clients practicing castration technique



Enhancing Swine Production Highlights

01.	Increased Market Value 21 clients sold 43 pigs, generating over \$34,500 in swine revenue.		
02.	Enhanced Ceremonial Capacity 12 clients successfully slaughtered 66 pigs for community events.		
03.	Improved Weight Gain All clients reported a 50% increase in pig weight.		
04.	Improved Animal Welfare 95 clients adopted castration techniques, leading to better animal health and behavior.		



OUTREACH AND EXTENSION ACTIVITIES

Bottom-line Statement:

By providing critical training and support, we have empowered pig farmers to significantly improve their livestock practices. This has led to increased pig weight, higher market value, and greater economic opportunities for rural communities.



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Enhancing Poultry Production in the FSM

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Relevance

The FSM heavily relies on imported poultry products, which negatively impacts food security and the economy. This project aims to increase local poultry production, empower farmers, boost the local economy, and improve nutrition by reducing reliance on imports and promoting self-sustainability.

Public Value Statement

The initiative tackles insufficient poultry production in the FSM with **three key objectives**:

- **Knowledge Dissemination:** Increase awareness and knowledge of poultry production methods among 1,200 participants annually.
- **Production Expansion:** Encourage at least 400 participants to adopt, establish, and scale up their poultry production.
- **Import Reduction:** Assist farmers in supplying 1,600 eggs to local markets each year, aiming for a 50% reduction in import value by 2028.

Extension Response

The program successfully delivered comprehensive training on poultry farming practices to a wide range of participants. Through 2 training sessions in each state, we equipped farmers with the following concepts:

- ⇒ Health & Nutrition
- ⇒ General Welfare & Care
- ⇒ Reproduction & Growth

Post-training, certified farmers across the FSM have received chickens and established a total of 48 farmers: PNI (7), Yap (20), Chuuk (21), Kosrae (to be distributed to 12 farmers).

Yap Poultry Data (7 months data):

- ⇒ 8 farmers reported total egg production of 1,117 eggs
- ⇒ 6 farmers reported home consumption of total 642 eggs
- ⇒ 1 farmer reported selling 19 dozen eggs at the price of \$3.50 lower than the imported eggs being sold for \$7-8.
- ⇒ Incubators have been distributed to 5 farmers to start hatching their first batch of chicks.

These farmers will be responsible for breeding and producing 14,000 chicks for the FSM GCF SAP020 Project to cover 140 project sites.



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Food Safety in FSM Communities

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Relevance

The pervasive issue of food and waterborne illnesses in Micronesia poses a significant threat to public health and economic development. The lack of food safety knowledge, poor hygiene practices, and inadequate infrastructure contribute to the high incidence of these diseases. By addressing these challenges through education, training, and research, we can improve food safety standards, reduce the burden of illness, and enhance the overall well-being of Micronesian communities.

Public Value Statement

By conducting comprehensive food safety training and awareness campaigns, we have empowered individuals and communities to adopt safer food handling practices. Through engaging workshops, demonstrations, and educational materials, we have significantly increased knowledge and awareness about food safety principles, reducing the risk of foodborne illnesses and promoting public health.

Extension Response

Our food safety initiatives have had a substantial impact on the target communities:

- **Increased Knowledge:** Over 68 individuals, including students and community members, successfully completed food safety training and passed knowledge assessments.
- **Enhanced Skills:** Participants actively engaged in hands-on demonstrations and discussions, gaining practical skills in food preparation, storage, and handling.
- **Community Engagement:** By organizing a World Food Day cooking demonstration, we fostered a sense of community and encouraged the adoption of healthy and safe food practices.

Through these efforts, we have contributed to a healthier and safer food environment in Micronesia.



Practicing Food Safety Demonstrations



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Fostering Healthy and Resilient Youth and Families in the FSM

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Relevance

The Federated States of Micronesia (FSM) faces significant challenges related to its young population, including limited educational and economic opportunities, social issues, and a changing cultural landscape. This program directly addresses these challenges by equipping youth and families with the skills and knowledge needed to thrive in the 21st century. By fostering social and moral development, promoting entrepreneurship, and encouraging community engagement, this program aligns with the FSM National Youth Policy and contributes to the overall well-being and sustainable development of the nation.

Extension Response

This program has successfully extended its reach to a diverse range of youth and families in the FSM. By providing comprehensive outreach and extension services, we have empowered participants to develop strong social values, civic responsibilities, and entrepreneurial skills.

Impact Highlights:

The youth training program have successfully empowered participants, promoting cultural preservation, sustainable practices, and community engagement. Key achievements include training youth in weaving skills, promoting sustainable gardening, developing various skills for employability, and fostering community involvement. Increased Self-Confidence: The training programs boosted participants' self-esteem and confidence in their new abilities.

- ⇒ Total participants: 148 Youths & 28 Adults contacted directly
- ⇒ Traditional Knowledge & Skills Training: 122 youths & 27 adults
- ⇒ Agriculture Sustainable Practices: 47 youths & 18 adults



Yap High School Students Learn Sustainable Gardening Techniques

Public Value Statement

This program delivers significant public value by fostering the development of responsible, skilled, and engaged citizens. By equipping youth and families with the necessary tools and knowledge, we are contributing to the social, economic, and cultural well-being of the FSM.



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Addressing Childhood Obesity in the FSM

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Relevance

The high prevalence of childhood obesity in the Federated States of Micronesia (FSM) poses a significant threat to the health and well-being of the nation's youth. This program directly addresses this pressing issue by promoting healthy lifestyles, including balanced diets and regular physical activity. By targeting the root causes of obesity, such as unhealthy eating habits and sedentary lifestyles, this initiative aims to improve the long-term health outcomes of FSM's children and adolescents.



Elementary students learning about portion control

Public Value Statement

This program delivers significant public value by promoting healthier lifestyles and preventing chronic diseases. By addressing the issue of childhood obesity and promoting healthy eating habits, we are improving the overall health and well-being of the community. Additionally, by involving schools and community organizations, we are fostering a culture of health and wellness that will benefit future generations.

Extension Response

This program has successfully extended its reach to a diverse population, including youth, adults, and children. Through a combination of educational initiatives, community engagement, and targeted interventions, we have empowered participants to make informed choices about their health and well-being. By increasing awareness of healthy eating habits and the importance of physical activity, we have fostered a healthier and more active community.

Impact Highlights:

Expanded Reach: Successfully engaged a diverse group of 278 individuals, including youth, adults, and children.

Increased Awareness: Significantly raised awareness about healthy eating and physical activity among 77% of Yap High School students.

Community Engagement: Implemented a weekly "Local Food Day" in Gaanelay School, promoting healthy eating habits among young children.

Sustained Impact: Maintained engagement with 7 Biggest Loser participants through ongoing follow-up support.

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Improving Aquaculture in Micronesia

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Relevance

The Federated States of Micronesia (FSM) faces increasing pressure on its marine resources due to overfishing and climate change. Aquaculture offers a sustainable solution to enhance food security, generate income, and protect marine ecosystems. This program aligns with the FSM's strategic development goals by promoting the development of aquaculture technologies. By empowering local communities with the necessary knowledge and skills, this initiative contributes to the long-term sustainability of FSM's fisheries and the overall well-being of its people.

Extension Response

This program has successfully extended its reach to local fishers and aqua farmers in the FSM, empowering them with essential skills and knowledge in sustainable aquaculture practices. Through hands-on training and technical assistance, we have significantly enhanced their capacity to cultivate rabbitfish, mangrove crab, and seaweed. These efforts have directly contributed to the development of a more sustainable and resilient aquaculture sector in the region.

Impact Highlights:

Research and Development

- ⇒ Conducted preliminary surveys for potential aqua products.
- ⇒ NOAA Grant proposal for new aqua hatcheries underway.
- ⇒ Initiated land acquisition for a new hatchery in Kosrae.

Capacity Building and Community Engagement

- ⇒ Trained local communities on survey techniques and mangrove crab aquaculture practices.
- ⇒ Collaborated with local fishers to gather information on crab fishing practices.
- ⇒ Knowledge exchange on aquaculture techniques across FSM
- ⇒ Marine survey collaboration with Marine Resources Division



Knowledge-sharing across FSM

Public Value Statement

This program empowers communities to become self-sufficient in aquaculture, enhancing food security, boosting the economy, and protecting marine ecosystems. By providing training and technical support, we are building a sustainable future for the FSM.



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Building Climate Resilience in Micronesia

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Relevance

The Climate Change Challenges Outreach Program directly addresses the urgent need to build resilience and adapt to the impacts of climate change in vulnerable island communities. By providing targeted support and training in sustainable agriculture, the program empowers communities to enhance food security, improve nutrition, and mitigate the effects of climate variability. This initiative aligns with the broader goal of creating climate-resilient and sustainable communities in the Federated States of Micronesia.

Extension Response

The 2024 Climate Change Challenges Outreach Program successfully extended its reach to vulnerable island communities in Yap, directly engaging over 177 individuals and indirectly impacting hundreds more. Through targeted training and capacity building, the program has empowered communities to adopt climate-smart agricultural practices, enhancing their resilience to climate change and improving food security.

Highlights & Impacts

Empowered Communities: Directly engaged over 177 individuals and indirectly impacted hundreds more.

Enhanced Food Security: Promoted climate-smart agriculture practices to increase food production and nutrition.

Built Climate Resilience: Equipped communities with the knowledge and skills to adapt to climate change.

Strengthened Social Cohesion: Fostered intergenerational knowledge sharing and community engagement.

New Hatch Project: The project seeks to make bush pepper a viable and profitable crop for small-scale farmers in Micronesia.



Coconut Export National Strategy Workshop



Sharing Insights on Climate Resilience – UOG AgrAbility Workshop

Public Value Statement

This program enhances food security, builds climate resilience, empowers communities, and preserves cultural heritage in the FSM.



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GCF SAP020: Climate resilient food security for farming households across the Federated States of Micronesia (FSM)

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Relevance

COM-FSM CRE in partnership with FSM R&D and Micronesia Conservation Trust, is addressing critical climate change and food security issues in the FSM. The Green Climate Fund-funded project, SAP020: Climate Resilient Food Security for Farming Households across the FSM, has enabled CRE to implement activities under Components 2 and 3, aligning with its existing extension programs. To effectively carry out these activities, CRE has certified its extension staff as Climate-Smart Agriculture (CSA) trainers, empowering them to deliver training and promote sustainable agricultural practices in communities across the FSM.

Training Evaluation

The Climate-Smart Agriculture (CSA) and Poultry Farming training program demonstrated significant success in increasing participant knowledge. Pre- and post-training assessments revealed a notable improvement in understanding CSA principles and poultry farming practices, particularly in areas with lower initial knowledge levels.



Component 2 Objectives:

Establish Climate Resilient Agroforestry: Creating an inventory of climate-resilient practices and technologies, and providing training and demonstrations to farmers.

Progress: completed with training module established: Climate Smart Agriculture & Basics of Poultry Farming

Capacity Building for Extension Agents: Increasing capacity of agricultural advisors to train farmers on climate-resilient practices.

Progress: completed with certified trainers in Yap (9), Pohnpei (5), Chuuk (8), Kosrae (3)

Training on Agroforestry Practices: Equipping farmers with knowledge and skills to adopt climate-resilient agroforestry practices.

Progress:

- 270 households in Pohnpei
- 99 households in Yap
- 178 households in Chuuk
- 229 households in Kosrae

Developing Reserve Capacity: Establishing seed banks and nurseries to ensure food security during climate disruptions.

Progress: Will start after phase 2: hands-on training



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GCF SAP020: Climate resilient food security for farming households across the Federated States of Micronesia (FSM)

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Relevance

COM-FSM CRE in partnership with FSM R&D and Micronesia Conservation Trust, is addressing critical climate change and food security issues in the FSM. The Green Climate Fund-funded project, SAP020: Climate Resilient Food Security for Farming Households across the FSM, has enabled CRE to implement activities under Components 2 and 3, aligning with its existing extension programs. To effectively carry out these activities, CRE has certified its extension staff as Climate-Smart Agriculture (CSA) trainers, empowering them to deliver training and promote sustainable agricultural practices in communities across the FSM.

Training Evaluation

The Food Processing & Preservation training program demonstrated significant success in increasing participant knowledge. Pre- and post-training assessments revealed a notable improvement in understanding the principles, particularly in areas with lower initial knowledge levels.



Community trainings

Component 3 Objectives:

Market Development & Value Chains: Improve market access and catalyze new climate-adapted livelihoods through targeted marketing support.

Progress: working on a business model to be implemented for all four states– to be completed by Spring 2025

Food Processing and Preservation: Enhance long-term adaptation to climate change by providing food processing and preservation training.

Progress:

- ◆ Certified trainers in Yap (2), Pohnpei (2), Chuuk (2), Kosrae (in the process)
- ◆ Trainings: Yap (99 Hh's), Pohnpei (None yet), Kosrae (57 Hh's), Chuuk (none yet)

Awareness Building for Local Agriculture: Increase awareness of local agriculture to support farmers and ensure long-term food security and nutrition.

Progress: Go Local Clubs established in FSM Schools: 7 in Pohnpei, 4 in Chuuk, and recruitment for Yap and Kosrae to be in Spring 2025; Public Outreach through Public Events such as World Food Day, World Heart Day, World Diabetes Day, etc.

