

Building Food Resilience

**A regional food systems assessment of Guam,
CNMI, and American Samoa**

Report prepared by Kitchen Sync Strategies for Guåhan Sustainable Culture



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📌 A Note on Language

This research below outlines the status of local and regional food systems in Guåhan (Guam), the Commonwealth of the Northern Marianas Islands (CNMI), and American Samoa. These three island groups comprise the Pacific Islands and US Territories subregion of the Island and Remote Areas Regional Food Business Center. While each place has a unique cultural and linguistic history, in the report that follows we attempt to normalize the use of local language in our writing. In partnership with on-the-ground Key Partners (Guåhan Sustainable Culture), we have made the decision to use terms from local languages like CHamoru and Samoan, and while this report is clearly written in English we do not italicize or otherwise diminish these terms in the text. Instead, we provide the most common vernacular with English translations in parentheses after the term.

We have also chosen to utilize the indigenous CHamoru name for the island of Guam (Guåhan) and the island of Rota in CNMI (Luta). While we recognize it may not be commonly known to readers from the continental US, our partners (and Kitchen Sync Strategies team) feel it is important to refer to these islands by their primary names. When we refer to the islands themselves, we use the CHamoru spelling, whereas when we refer to organizations or institutions that include “Guam” or “Rota” in their official names, we use the title that they use. Similarly, when referring to the language or the ethnic group that lives throughout the Marianas island archipelago, we utilize the spelling CHamoru. Even among locals, this spelling differs: some capitalize the CH- while others spell Chamorro (as is common in the CNMI) or Chamoru. We accept all spellings and have chosen CHamoru for this report.

Finally, we use the term Samoan to refer to the language as well as to people of the ethnic group of residents of American Samoa and the neighboring country of Independent Samoa. In situations where we felt it is important to distinguish between residents of American Samoa and Independent Samoans, we do so clearly. Otherwise, when we use the term Samoan referring to the cultural group, we are referring to members of that group *in* American Samoa (and not Independent Samoa).



The Pacific subregion of the USDA's Island & Remote Areas Regional Food Business Center encompasses Guåhan (Guam), the Commonwealth of the Northern Mariana Islands (CNMI), and American Samoa. Guåhan and CNMI comprise the geological region of the Marianas islands in a broader geographic region of Micronesia while American Samoa (and its neighbor and cultural cousin Independent Samoa, formerly known as Western Samoa) lie in the region of Polynesia roughly 3600 miles to the Southeast of Guam. Despite the physical distance between these places and important distinctions in their cultural makeup, they share important historical legacies and current food systems characteristics.

Colonialism and militarization have significantly disrupted sociopolitical and food systems in these islands, where indigenous populations like the CHamoru in the Marianas and Samoans in American Samoa have deep cultural connections to the land and sea. The Marianas island and the Samoan island archipelagos were home to vibrant, developed populations before European colonists arrived (an estimated 40-100k in the Marianas, and 40-50k in the Samoan islands). Until the end of the 19th century, the island of Ta'u in the Manu'a islands (a trio of islands that are important cultural taproots for American Samoa) was the ruling center not just of all the Samoan islands, but also a vast Polynesian empire extending hundreds of miles that included Tonga, Fiji, and more. Similarly, enormous megaliths called *latte stones* across the Marianas islands show that the CHamoru people lived in sophisticated communities throughout the archipelago with strong social networks and deep attunement to the sustainability of food sources in the abundant ocean and limited land.



Figure 1: A CHamoru farmer growing pineapple in 1931. Producers grew piña or pineapple before World War II both for food and for its tough fibers which were used for clothes, fishing net, and even instrument strings. Photo Credit: Guam Museum Foundation



Today, after centuries of colonial invasion and a steady erosion of their sovereignty, many communities across these islands rely heavily on imported, processed foods, associated with a plethora of diet-related health issues. Local food production faces challenges including limited agricultural land and high input and shipping costs while the middle of the local value chain struggles with a lack of processing and distribution infrastructure, all adding to the difficulty of competing with cheaper imports. Nonetheless, there is growing interest in revitalizing local agriculture and community leaders in each island group are leading the movement to re-localize their food economies.

Across this subregion, small subsistence farms growing traditional crops and continuing to use Traditional Ecological Knowledge (TEK) and growing practices are still quite common, especially in American Samoa. In Guåhan and CNMI, small-scale farmers are working to expand production of these crops including taro, breadfruit, yams, coconuts, and bananas. Farmers cooperatives, CSA programs, and informal farmstands provide some direct-to-consumer sales channels on each island, and higher volume, wholesale purchasing by schools, the military, and government could become important markets for local producers with more supportive policies and targeted capacity building.

Constituents in these islands have identified key needs for strengthening local food systems include access to capital (particularly grants), technical assistance for existing transactional and support actors ¹, infrastructure for local food processing, aggregation and distribution, market channels development, and overall coordination between different sectors of the food system. Additionally, unique land ownership structures, especially in American Samoa, require using strategies that are compatible with local customs.

Despite the challenges they face, community-based organizations in these islands are guiding diverse groups of actors to increase local production, improve food security and health, and ultimately reclaim the sustainable foodways that once flourished with Indigenous communities in their islands. The vision they hold for a thriving, fair, nourishing, and modern local food economy has potential to benefit the communities, cultures, and environments throughout this remote but resilient Pacific subregion.



In the sections that follow, we synthesize many resources shared with us by our key partners in this Pacific subregion and combine findings from Key informing interviews we conducted throughout our research. This Food Systems Review is intended to provide a fairly detailed consideration of the current status, capacity, challenges, and collaboration occurring in the core steps of the food cycle from production to market Access (and beyond).

Throughout our broader Islands and Remote Areas RFBC, these so-called Program Areas² serve as guideposts for understanding where each subregion can focus their research, the Business Builder awards and Technical Assistance funds provided by this RFBC, and ultimately their energy to improve their food economies.

We review each Program Area in four parts. We briefly synthesize the Current Reality faced by individuals, businesses, and organizations active in the work of that Program Area. We then highlight some Relevant Actors and Networks who, in real time, are active in shaping the on-the-ground reality for local food³. We summarize Key Challenges facing that Program Area and, lastly, underscore efforts that show Promising Momentum to address those key challenges. This is not intended to be an exhaustive or even holistic database of all actors, projects, or work unfolding; rather, it is intended to serve as a snapshot-in-time and evidence base for the key partners to share with collaborators. We hope it also illuminates the resilience, brilliance, and daily realities faced by the communities in these islands to readers who may not be familiar with them.



1 Current Reality

Communities have sustained themselves off food from the land and sea surrounding the islands in this Pacific subregion for centuries through a diet comprised of starchy vegetables like taro, breadfruit, and cassava, fresh produce like coconut, bananas, and leafy greens, and fresh seafood such as tuna, mahi mahi, and much more. Local production of land-based crops and fishing in the local fisheries remain central to the systems of agriculture, mariculture, and wild harvesting in the islands today, though with significant changes to the systems that flourished pre-contact from Western colonists. Today, the agricultural landscape in Guåhan is characterized by a food economy dominated by imported food, an aging farmer population, and a growing number of small-scale farms reinvigorating local production.

As of 2018, there were roughly 264 farms in Guåhan that produce at least \$1,000 worth of crops annually- roughly a 150% increase from 2007 . The majority of these farms are small- less than five acres- and nearly half of the farmers were above 65 years old. This demographic trend is part of what has led to increased youth engagement in agriculture with multiple groups on island working to ensure the sustainability and future of local food production in Guåhan.



Production in the Commonwealth of the Northern Marianas Islands is concentrated on the populous islands of Saipan, Tinian, and Luta (Rota) and is characterized by many small diversified farms growing crops primarily for local consumption. According to the 2018 National Ag Census, the average farm in CNMI was about 6 acres in size (down from nearly 15 acres in 2007), half of all farms had sales under \$1,200 annually, and only about 40 commercial producers sold over \$10,000 in 2018 (mostly from melons, root crops, and other produce). Similar trends prevail with protein, with the Commonwealth reporting about 1 100 cattle across the islands (and fewer Hogs, goats, and poultry). While the data on CNMI's production is notably limited, it is clear that growing a viable agricultural industry depends on strengthening local markets given the CNMI's geographic isolation.



Figure 2: The Starkist Samoa Co. tuna cannery in Pago Harbor, American Samoa (April 2024)

Production in American Samoa is a tale of extremes. Agricultural production occurs mainly on the island of Tutuila and in the Manu'a islands, and the ag economy there has experienced a dramatic increase in farms under 1 acre (2,323 in 2018, up from 1,283 in 2008). Some 6,329 mostly small farms (80% of which are very small, under 2 acres) produce small volumes of staples like taro, bananas, breadfruit, and coconut not for export but overwhelmingly for local consumption.⁴

Meanwhile, one of the world's largest tuna canneries (Starkist Samoa Company) is located in Pago harbor and plays an outsized role not just in the islands food economy but it's entire economy: the Starkist Tuna cannery generates some 85% of all revenue earned on the island.⁵



Farmland is a complicated topic in this region as well because as small islands it is scarce, but also because the function of land in American Samoa is fundamentally different from the other territories in this region (and the broader US as a whole) in that Samoan culture practices customary land stewardship and not land ownership (referred to as “fee simple” land ownership). In short, Samoan custom involves matai (chiefs) representing ‘aiga (family groups) managing the land they inherit by lineage. This poses an additional level of complexity to the conversation of access to farmland- particularly for non-Samoan producers, a fast-growing part of American Samoa's population- because non-Samoans are only able to farm land through a lease and are typically limited from making improvements to their land. This, inherently, limits the type and scale of production these producers can conduct.

1 Key Changes in Production

While specific production challenges are highly dependent on the product category, unique terrain of each island territory, other environmental factors, and shared challenges in these islands revolve around the extremely high costs of agricultural inputs. Due to a mix of geopolitical and economic policies, producers in Guam, CNMI, and American Samoa (which are each roughly 5,000 miles from California's coast) pay much higher costs for things like seeds, fertilizer, on-farm equipment, animal feed and other inputs compared to the U.S. mainland. Non-agricultural policies like the Jones Act, which requires goods shipped between U.S. ports to use American-built vessels and crews, contributes to the exorbitant shipping expenses incurred with the purchase of these inputs (even when, in the case of CNMI, the territory is exempt from the Act), and this fundamental economic challenge makes it difficult for local producers to scale, innovate, and ultimately compete on price with imported commodity foods.



Figure 3: David Crisostomo of the University of Guam SeaGrant shows off his aquaponic lettuce production to RFBC leaders from Hawai'i. David farms tilapia in containers and uses their waste to fertilize trays of lettuce. He also has created cost-effective kits for others to produce this combination of protein and produce year-round.



Despite a tropical climate that favors cultivation of many crops, limited infrastructure for production including water access, harvesting equipment, and cold storage needed for post-harvest handling mean that the number of mid-sized and large producers (who require this infrastructure to scale) on the island is low. Additionally without this infrastructure, it is challenging for small local producers to access markets efficiently and provide consistent volumes to buyers in weather that spoils products quickly.

Additionally, all producers in this region are extremely vulnerable to natural disasters like typhoons, tsunamis, earthquakes, and flooding, not to mention a range of tropical pests. Crop damage from typhoons, invasive species like the coconut rhinoceros beetle, and unprecedented levels of drought have the potential to destroy fields, and producers understand that climate change may exacerbate these production risks over time.⁶

1 Promising pieces of momentum and opportunities include:

Across this region, several trends point to ways that producers are addressing the challenges noted above and, despite them, increasing the resilience of their ecosystems. For one, the number of small-scale producers in each island territory is growing according to Ag Census data- assign that new farmers are both adding to the supply of production and innovating new production methods.

Aquaculture is one innovative production method being pursued to increase local production, particularly in Guam. The Guam Aquaculture Training and Development Center (GADTC), housed at the University of Guam, has been at the forefront of these efforts, leading research to develop a pathogen-free shrimp that is likely to become an important commercial product for both domestic and export markets. The University's Sea Grant program is also innovating solar powered aquaponic systems that combine production of tilapia with fresh leafy green production, in addition to conducting rigorous training programs for the outside community to learn about aquaponics, and offering free solar powered aquaculture systems to participants with funding from the Governor. This points towards ways that aquaculture could play an increasingly significant role in the island's food system, complementing more traditional land-based agricultural sectors. Like others in the region, as a relatively small island with limited land resources, Guam will be served well by expanding sustainable aquaculture and aquaponic production in the coming years, and its Governor has recently announced the creation of a Division of Aquaculture within Department of Agriculture.

An example of innovation revolves around reviving the use of Traditional Ecological Knowledge (TEK) in the region.



Guåhan Sustainable Culture, a non-profit organization based in Guam, is actively working to promote the cultivation and consumption of traditional staple crops like breadfruit and taro and usher in a new generation of local farmers. Similarly, the Northern Marianas College - Cooperative Research, Extension, & Education Service (NMC-CREES) is engaging in efforts to revitalize traditional crop production across the CNMI. They are working with local producers to reintroduce and improve cultivation of crops like sweet potatoes, which have historically been an important part of the Chamoru diet. By tapping into the deep cultural history and TEK on these islands, organizations like these are helping to lay the foundation for a more resilient and self-sufficient food system in the region.

Lastly, developments around the increased cooperation among producers is emerging as another important innovation for strengthening local food systems here. In the CNMI, the recently formed **Kagman Agricultural Farms and Producers Association (KAFPA)** is providing a platform for farmers to unite and work together to address shared challenges and opportunities. By organizing collectively, KAFPA members are able to pool resources, share knowledge and skills, and advocate for their common interests. Similarly, in Guam, **Farm to Table Guam** is playing an important role in fostering greater cooperation and coordination among local farmers through its CSA program and other initiatives. By working together and leveraging their collective strengths, organizations like these are helping to galvanize producers around shared goals and success.



Current Reality

Food processing plays a crucial role in food sovereignty in tropical islands, particularly in Guåhan, CNMI, and American Samoa. Processing not only helps to reduce food waste by extending the shelf life of locally grown produce, but it also creates opportunities for value-added products that can command higher prices in the market and which extend seasonal availability for crops with abundant harvests, driving environmental sustainability, food security, and economic opportunity. By transforming raw products into packaged goods, food processing can contribute to local economic development and can directly improve the livelihoods of farmers and food entrepreneurs in the region.

Currently, food processing varies across these different island groups, though there are some similarities in infrastructure gaps and innovations. In Guåhan, there is limited processing infrastructure, with a notable lack of USDA-certified slaughterhouses for meat processing. However, there are emerging opportunities for cottage food production and small-scale processing, supported by facilities such as the University of Guam's new initiative to certify Master Food Preservers. CNMI has a mix of small-scale, home-based processing and larger facilities like the meat slaughterhouse on Tinian. American Samoa's processing sector is dominated by the tuna industry, namely the massive StarKist cannery in Pago harbor.



Operated as a subsidiary of one of the world's largest tuna exporters (Dongwon Ltd)., StarKist supplies tuna to massive markets like the USDA Commodity Foods program (for food service in K-12 schools across the country) and is responsible for the majority of all income earned by all American Samoans. Across all three island groups, there is untapped potential for growth in small-scale value-added food processing, but challenges like infrastructure, regulations, and workforce development need to be addressed.



Relevant Actors and Networks

Throughout this subregion, there is a rich tradition of cottage industry processed products. Many families maintain their own recipes for hot sauces, other condiments, and snacks that involve dehydrating local ingredients. Many of these products are made only for personal consumption or are sold at markets without entering the fully regulated marketplace. There are very few commercial processors on each of these islands, and as such there is a limited set of success stories. This speaks to the opportunity- and need- to develop more of the required infrastructure to create new, innovative value-added products featuring local ingredients.

Below is a table with a brief description of some of the active processors that we met during our outreach.

Processor Name	Location	Description of primary processed products
Moana Taro Chips	American Samoa	Formal small-batch processing facility
Denanche' Brand	Guåhan	One of Guåhan's most successful value-added processors, they process a suite of flavored hot sauces from Guåhan-grown peppers and ingredients.
Rota-basco	Luta, CNMI	Small batch hot sauce made on Luta with local hot pepper varieties (including Tinian hot peppers).
Island Gluten Free Bakery	American Samoa	A small batch mill that dehydrates and makes 100% gluten-free flours and baking mixes from breadfruit, green bananas, and more.



Pictured from left to right: Moana Taro Chips, Denanche' Brand, Rota-basco, Island Gluten Free Bakery



Key Challenges in Food Processing

Simply put, this region lacks adequate food processing infrastructure to support farm and food businesses interested in minimal or value-added processing. One of the main barriers to establishing and expanding processing facilities is the high cost of importing necessary equipment like commercial kitchen appliances, packaging machines, and freezing and cold storage units. Due to their remote location, these islands face extreme shipping costs for large and heavy equipment, making it far more difficult for small-scale processors to invest in the tools they need. Additionally, the logistical challenges of installing and maintaining large processing equipment on these islands can be daunting. Limited access to specialized technicians and spare parts can lead to prolonged downtime and lost productivity when equipment breaks down. Furthermore, the limited land area and competing land use priorities in these island communities can make it difficult to find suitable locations for large processing facilities.

Across the continental US, in communities where farm and food businesses lack value-added production infrastructure, there often develops a shared commercial kitchen that creates a communal, shared point of access to smaller-scale equipment for making value-added products. In the Pacific islands, these shared commercial kitchen spaces were highlighted as a key need of food businesses interested in making shelf-stable local products, especially when

they require packaging equipment like flow wrappers, piston fillers, and vacuum sealers. Without shared commercial kitchens, small food businesses are required to make massive investments in their own hard infrastructure development- something that is rarely possible due to challenges described above.

These challenges create real hurdles for local food processors, restricting their ability to add value to locally grown products and compete with imported processed foods. In our engagement of local stakeholders in each subregion, entrepreneurial farms and food business owners shared ideas to develop value-added products that would help them scale.



Figure 4: Processors at the Moana Chips processing facility preparing raw taro before frying and packing. (Photo taken April 2024)



Importantly, even wholesale customers in-region often expressed demand for minimally- or value-added processed products, sharing the sentiment that it would not only help their foodservice operations save time, labor, and money but also would help them replace the less nutritious, imported versions of those products they currently procure.

Promising pieces of momentum and opportunities include:

Despite the challenges faced in these islands, innovation in processing is happening at many different scales. It is said that “creativity loves constraints”, and this region’s constraints have fostered clever approaches to challenges and new twists on old ideas for years, largely out of a necessity to develop self-sufficiency and resilience. Some of these “bright lights” are described below.

Food systems stakeholders in Guåhan are focused on building the capacity of farm and food businesses on-island to create more value-added products. **Guåhan Sustainable Culture** has pursued a Resilient Food Systems Infrastructure grant to develop an aggregation and processing hub that would focus on creating markets for small-scale producers. **Guam Unique Merchandise and Art (GUMA)** is a nonprofit that, while not being focused on the food and beverage space, provides important business development support to small product makers (including value-added food products).

In CNMI, there have historically been several highly successful processed food projects made on the islands that have stalled in recent years. After making quite the splash at hot sauce festivals in the continental US, local producers on the small island were distributing **Rota hot sauce** (once called Rota-basco until Tabasco (™) submitted cease and desist notices) to markets on the continental US. Collaborations with researchers and processors that originated in Luta are considered by locals to be the birthplace of a now-widespread health and wellness product derived from the tropical noni fruit. **Dehydrated noni and noni juice products** were once processed on-island in larger volumes, but COVID all but eliminated their production. One entrepreneurial producer who was involved in the production of Rota-basco has identified several opportunities to develop **non-food products out of coconut coir** which are incredibly abundant on the island.

In American Samoa, there is strong demand for **lightly processed starches and vegetables** from the School Lunch Program on the island- one of the most important wholesale market outlets for producers there. Small value-added processors like **Island Gluten Free Bakery** create ulu and green banana flour along with pancake mixes. **Moana chips** (noted above) **creates fried taro chips** from taro sourced from American Samoa or nearby independent Samoa, and their processing facility is one of the only private processing facilities on-island outside of Starkist Samoa’s tuna cannery.



Current Reality

In the Pacific subregion, aggregation plays a crucial role in connecting small-scale producers to larger markets, reducing food waste, and improving the efficiency of the local food system. Consolidating products from multiple farmers in a central place on-island, aggregators can help to smooth out seasonal fluctuations in supply, meet the volume and consistency requirements of buyers, and enable producers to access new sales channels.

However, the current aggregation landscape in the region is varied, with a mix of formal cooperatives, informal networks, and emerging models. Strengthening and expanding aggregation infrastructure and partnerships has the potential to significantly contribute to the development of a more robust and resilient local food economy.

Relevant Actors and Networks

In Guåhan, there is one main cooperative providing aggregation services to small producers: Farmers' Cooperative Association of Guam. They operate a small food hub-like facility in the center of the island where they purchase products from local producers and make them available in one place (mostly to D2C markets).

In CNMI, most aggregation of locally grown food is occurring through social, collaborative networks. Producer groups like Marianas Producers Association and Kagman Agricultural Farms and Producers Association (KAFPA) on Saipan coordinate with multiple producers, but they do not operate aggregation points for them. Instead, they support producers connecting with each other to access farmers markets and beyond.

In American Samoa, many groups of producers in the islands have established semi-formal collaborations referred to locally as “co-ops”. While they do not operate facilities to aggregate locally grown products, they are networked and have the capacity to fulfill larger volume orders like an aggregator would.

In all three island areas, large volumes of imported food tend to be warehoused by significantly larger distribution businesses that, as described below, rarely procure or source products from local producers.

Key Challenges in Aggregation

One of the primary challenges facing aggregators in this subregion is limited coordination among producers. In many of the islands, there are no formal cooperative structures or producer networks that could facilitate collaboration and resource sharing, though there may be more informal, communal networks that approximate this.



Without a well coordinated, structured coordination process, there can be a duplication of efforts, inefficiencies in aligning production and distribution, and certainly missed opportunities for collective marketing and sales. Additionally, without trusting relationships and reciprocal relationships, competition among farmers for limited markets can hinder the development of a more coordinated and cooperative approach to aggregation.

Another significant constraint is the presence of infrastructure gaps that hinder how effective aggregation and distribution of local food products can be. Many areas in these islands lack adequate cold storage facilities and packing houses that are essential for maintaining product quality and extending shelf life, thus enabling multiple farmers to consolidate their products in one place. Without this often expensive, difficult-to-maintain equipment, aggregation can only occur in brief periods and is limited to the small subset of products adapted to resist rotting in tropical climates (like taro, cassava, etc.). Furthermore, the limited transportation options for distribution between islands and particularly the high costs and infrequency of shipping between islands (within CNMI, American Samoa, and between Guam and CNMI) makes it challenging if not impossible to move products efficiently and cost-effectively from producers to aggregation points and ultimately to markets of all kinds. This lack of aggregation capacity means local producers seeking local markets are left to their own to bring their products to consumers.

Inconsistent supply and quality of local food products also pose challenges for aggregation efforts. The Pacific subregion is subject to seasonal fluctuations in production, with some crops being abundant during peak harvest times but scarce during other periods. This variability can make it difficult for aggregators to maintain a steady supply of products for buyers. Additionally, there can be significant differences in the quality and grading standards used by individual farmers, leading to inconsistencies in the products available for aggregation. Establishing and enforcing common quality standards can be challenging, particularly in the absence of formalized grading systems or quality control measures.

Finally, meeting the requirements and preferences of buyers, especially larger institutional customers, is a challenge for the few aggregators of local food that exist across these islands. Many buyers like schools, hotels, and others require their suppliers to have food safety protocols and/or certifications, liability insurance, or other formal qualifications that-beyond the barriers noted above- are difficult for emerging aggregators to obtain. base and sales channels.

Additionally, these buyers often prefer to work with suppliers who can provide a consistent, year-round supply of products, which can be challenging given the lack of cold storage and seasonality of local production. Navigating these buyer requirements and preferences can be a significant hurdle for aggregators seeking to expand their customer.



Promising pieces of momentum and opportunities include:

Fortunately, there is momentum behind addressing these challenges. One promising opportunity for strengthening aggregation is to expand models of aggregation working in some islands of this subregion such as the **Farmers' Cooperative Association of Guam**. In the recent past, this Cooperative has provided collective marketing and sales and a platform for farmers to access larger markets, and it has sold their products at a centralized location in Dededo. These are three of the core components of efficient aggregation, and with some targeted technical assistance and capacity building support this Cooperative could expand its own operation and create a blueprint for similar farmers associations in the Marianas Islands or American Samoa. The future for aggregators in this region could also include developing value-added processing capabilities, documenting quality control SOPs, and/or establishing partnerships with institutional buyers.

Another beneficial outcome of approaching the challenges faced years across this region is that it will foster greater collaboration and networking among producers and aggregators throughout these islands (and likely beyond). Developing a regional network of cooperatives, associations, or food hubs that share best practices, pool resources, and explore opportunities for joint marketing is a goal of the subregion's RFBC leaders, and this could lead to a coordinated strategy for leveraging the region's strong tourism industry as a driver of local food systems growth. Guåhan Sustainable Culture is an example of an organization exploring this strategy.





Increasing investment in the development of critical infrastructure like cold storage facilities and packing houses could also significantly enhance aggregation capacity in the region. For instance, the recent opening of **a USDA-Inspected slaughterhouse facility on Tinian** presents an opportunity to expand the aggregation and collective marketing of locally raised beef in CNMI.⁷

For aggregators, engaging more closely with institutional buyers and other large customers could also open up new opportunities for aggregation in the Pacific subregion. The success of the **American Samoa School Lunch Program** in sourcing local products demonstrates the potential for institutional procurement to support local farmers and drive demand for aggregated products. Working to replicate and expand this model in other areas of the subregion by helping aggregators to build relationships with schools, hospitals, military bases, and other institutions across the region is a promising avenue for growth, provided producers can meet the scale of demand. This value chain coordination work could involve providing assistance with bid preparation, contract negotiation, and meeting food safety and other procurement requirements. Securing commitments from these large buyers could help aggregators have a more stable and predictable market for their producers and enable them to plan production and invest in their operations with greater confidence.

While existing aggregator models provide a foundation, they face challenges in capacity, supply consistency, and meeting buyer requirements. Ultimately, developing aggregation capacity in the Pacific subregion will require infrastructure development, investment in strengthening networks, and market engagement strategies that are specific to the needs and opportunities of each island context.

Current Reality

Distribution on islands like these takes extra consideration and is often a breakdown point in the food systems of Guåhan, the CNMI, and American Samoa. Connecting producers with consumers (directly or through intermediaries like aggregators) requires the efficient movement of food products across and often between islands. However, the current distribution landscape in this Pacific subregion is characterized not by efficient localized distribution of food, but by a heavy reliance on large-scale importers, limited infrastructure for storage and transportation, and challenges in meeting the volume, price, consistency, and quality requirements of buyers. As a result, small-scale farmers and local food producers often struggle to access the distribution infrastructure that is on island to compete with imported products.



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Figure 5: Produce being aggregated at the Guam Farmers Co-op, one of the island's only wholesale aggregation points for small-scale local farmers. (Photo taken March 2024)

Consequently, distribution of locally grown, raised, or caught food remains small scale. This section will explore the current reality of distribution in each island group, highlight relevant actors and networks involved in the distribution of local and regional foods, identify key challenges hindering the efficient distribution of food, and discuss promising pieces of momentum and opportunities for improving distribution networks in the region.

Relevant Actors and Networks

Several key actors and networks play a role in the distribution of local and regional foods in Guåhan, CNMI, and American Samoa.

In Guåhan, the main entities providing distribution services to local producers are Farmers' Cooperative Association of Guam and Farm to Table Guam distribute produce from their member farmers to consumers, hospitals, and other institutions (Farmers Coop) and through a weekly, seasonal CSA program (Farm to Table). Most of the larger retail markets for food on the island like Pay-Less and Cost.U.Less rely on much larger Distributors like Pacific Grocers and International Distributors, Inc. (IDI) who almost exclusively distribute imported produce .



In CNMI, the landscape of distribution of local food mirrors Guam's but on a smaller scale. While some farmers markets play important roles for accessing locally grown food on Saipan, Tinian, and Luta, there are few (and in Luta's case, zero) large retail grocery outlets that centralize demand for local food products. Instead, the smaller grocery stores in population centers on the islands (which are largely managed not by CHamoru residents but by immigrant communities from China, Korea, and other countries in the

the Mid-Pacific) are serviced either through their networks of individual producers doing their own small-scale distribution or similar wholesale, import-heavy distributors like Pacific Grocers and IDI from nearby Guåhan. The CNMI Department of Commerce has expressed interest in supporting the distribution of local foods (as evidenced by their participation in community meetings in Saipan)⁸, but activities remain sparse.

In American Samoa, the food distribution landscape is divided in two main levels: import-oriented wholesale distributors that service large retail outlets and restaurants and individual producers (many of which are networked and called "coops" locally) that distribute locally grown products. While distribution appears to vary widely based on the market channel served, some producers do direct distribution to larger markets like grocery retailers, institutional customers, and restaurants. Tutuila Greens is a hydroponic lettuce producer and value-added product maker selling bulk greens and ready-to-eat meals to the largest grocer in Pago Pago, Cost-U-Less.

Individual producers as well as producer "coops" (which do not appear to be formal cooperatives under Subchapter T of the IRS) are directly distributing all the locally-grown product to the island's largest institutional customer: American Samoa School Lunch Program.



Figure 6: Value-added and ready-to-eat meals from Tutuila Green for sale through multiple market channels. (Photo taken April 2024)



Key Challenges in Distribution

Several key challenges hinder the efficient distribution of local and regional foods across the islands in this subregion, and many of them tracing back to structural economic realities of being Territories of the US and extremely far from the North American continent. Because food distribution requires successful food production, processing, and/or aggregation, these key challenges are compounded when we consider the hurdles to distributing food within and throughout these islands. That said, there are some challenges that specifically hinder progress with moving that food in the subregion.

One of these primary challenges is limited storage and distribution infrastructure that is available to local producers and processors in the region. Moving products around and between islands efficiently requires the products to be available in centralized, temperature-controlled, and food safe facilities, but many small-scale farm and food businesses lack access to such infrastructure (i.e. cold storage facilities, refrigerated trucks, etc.). This problem is made worse by the exorbitant costs (in time and money) of importing these assets and equipment, so small businesses feel like they can't invest in the infrastructure they need to solve their challenges. More outreach and relationship-building is needed to foster linkages between these small farm and food businesses and the larger-scale, import-oriented wholesale distribution businesses who currently operate this infrastructure.

Existing larger distributors can work more closely with small and mid-sized producers in the subregion to ensure that their products meet the safety and quality standards set by their customers, and this sometimes time-consuming process can be supported by local governmental leaders, economic development agencies, and community groups. Naturally, these distributors must be supported to understand the local food system and see benefit (economic, cultural, or otherwise) as they often do not collaborate with, for example, small farmers. Since in many cases these distributors have few or no competitors they often lack an incentive to adjust their business behaviors. On the island of Luta, there is evidence that some distributors like Rota Terminal & Transfer Co. (RT&T), which handles all shipping to/from the island, have taken advantage of their position as the primary distributor of all goods and inflated the costs of distribution of goods.¹⁰

Promising pieces of momentum and opportunities include:

Despite the challenges faced by food distributors here, stakeholders in the region are strategizing how to expand the options for more reliable, localized food distribution. It is clear, however, that there needs to be significant increases in investment in the hard and soft infrastructure required at the production, processing, and aggregation steps of the food cycle.



The strategy of establishing or supporting the expansion of small-scale businesses that would both aggregate and distribute locally sourced products (like a food hub) is a high priority for the region to address the challenges noted above. By providing the shared storage of raw product, facilities for processing those into value added products, and transportation infrastructure, these aggregators and distributors could help to address the distribution-specific pain points and enable local producers to access more markets.



Beyond building this capacity from the ground up or supporting small-scale food businesses to rapidly expand, fostering more collaboration with existing, larger customers and leveraging their distributor networks is another approach to explore. Buyers like the Department of Education in each region have established contracts with the import-oriented distributors described above, all of which have sophisticated distribution infrastructure but typically lack local sourcing relationships. Guam's Department of Education (DoE) food service is provided by Sodexo, and as of April 2024 **Sodexo** contracts with **Quality Distribution** and **IDI** for all of its food distribution. As recently as the early 2000s, Guam's DoE purchased directly from the Guam Farmers Cooperative, and stakeholders in Guam who are attempting to reestablish contact between the additional local producers and DoE could achieve this by connecting those producers to the Distributors who are integral to this system.



Current Reality

The terms 'marketplace' or 'market' can conjure images of a physical space made for business transactions where people purchase or exchange goods or services. In traditional economics, the 'marketplace' tends to refer to more abstract places of sales and commerce, and in a more theoretical sense, they refer to places where supply and demand govern the value and cost of goods. Because in this Regional Food Business Center context there is a strong presence of communities whose relationship to food is as reciprocal as it is transactional (i.e. subsistence production or wild harvesting, where the 'supply' is the natural environment and 'demand' isn't easily defined, and/or where no money is exchanged for food), we consider the term 'market' and ideas like 'access to markets' more holistically here. As such, we include in our analysis outlets for food that may not be governed by supply and demand in a conventional economic sense.

In this subregion, whether for commercial enterprises or community food sovereignty efforts, access to a broad range of markets is a critical factor in the viability and resilience of the local food economy. Commercial farm and food businesses in these islands face unique challenges in connecting with consistent, diverse, and profitable market opportunities because of the many factors outlined above.

For most small-scale farm and food businesses, there are limited places to sell food because of those challenges, and the many logistical and structural barriers discussed above hinder their





ability to expand their customer base and reach new markets even when they are present. Strengthening market access is crucial for supporting the growth and resilience of local food systems, improving the livelihoods of farmers and food entrepreneurs, and promoting the consumption of fresh, locally grown products among island communities.

For producers and product makers who operate outside traditional economic systems (but provide important access to local food for their surrounding communities), it is equally important to preserve their ability to be self-reliant and practice food sovereignty. Especially because of the legacy of structural inequities actors like these (including wild foragers, communal farm stewards, and culture bearers) have experienced, protecting their ability to practice subsistence production, maintain cultural traditions (like *fa'a Samoa* and *vā fealoa'i* in American Samoa)", maintain kinship and balance with the land and sea around them. Ensuring equitable food economic development requires honoring the important "markets" within many communities even when there is no financial transaction to record.

Relevant Actors and Networks

In all three regions, there's a range of access to different markets for local farm and food businesses currently with a general trend that more outlets are available in smaller-scale, direct-to-consumer markets than larger wholesale markets. In Guåhan, the Farmers' Cooperative Association of Guam and the Dededo Mayor's office operate a coordinated farmers market on the weekends, and Farm to Table Guam runs a CSA program. In CNMI, a mix of formal and informal markets allow producers from mini backgrounds to sell directly to local residents. In American Samoa, individual roadside farm stands provide outlets for consumers to purchase freshly harvested common items like taro, coconut, pumpkin, and bananas.

Retail and small-scale wholesale markets like grocery stores and corner stores provide more volume and, generally speaking, variety of products. On Guåhan, larger retail grocery stores like Pay-Less Markets tend to source a very small range of locally grown products seasonally, typically from the island's larger growers, while importing the vast majority of products from broadline distributors. On Saipan, outlets like the Garapan Public Market is a brick and mortar retail store that serve as access points daily for locally grown produce like bittermelon, greens, and avocado, starchy vegetables like breadfruit and cooking bananas, and even value-added products like hot sauce and coconut tuba (fermented coconut water). Small retailers on Tinian and Luta also reliably offer locally slaughtered proteins and produce. In American Samoa, small grocery stores like KS Mart tend to offer a fairly broad range of locally sourced items including produce, fish, value-added products like koko samoa (samoan chocolate) and bakery goods while larger grocery retailers like Cost-U-Less and tend to rely on imported staple goods while featuring a few local items (like sandwiches and salad greens from Tutuila Green).



Large wholesale markets like institutions have remained elusive for producers throughout this region in recent years, with a few notable exceptions. While all three subregions have strong institutions that source and serve large volumes of food- especially branches of the US Military which have large operations on most islands in the subregion- there is limited evidence of successful, sustained sales from small and mid-sized farm and food businesses to these institutions. In Guåhan, despite historical precedent for sales between local small-scale farmers and schools on-island, few small-scale producers are currently selling to large wholesale markets. In CNMI, despite similar lack of activity between territorial institutions and local growers, the Department of Commerce's Economic Development Division recently issued a Local Food Purchase Agreement which will procure at least 200 pounds of local pechay (Chinese cabbage) for distribution to families across the NMI. This may be a relatively small purchases, but it establishes an important precedent.



In American Samoa, the School Lunch Program remains one of the most important wholesale markets on the entire Island. Local farmers (both Samoans and immigrant producers) work closely with the current director of the school lunch program to understand the velocity and volume of produce needed for the Program and produce those items to be sold to the Program for service to students on island. Thanks to the Director's commitment to local sourcing and their nimble procurement practices, the Program is also purchasing items via direct micropurchases: when farmers have additional product that is of a high enough quality to be served to students, the School Lunch Program often adjusts its menus to be able to purchase and utilize the local option. Figure 8 below shows the volumes of top produce purchases from the Program from 2020-2022.



Figure 7: The American Samoa Department of Education School Lunch Program (ASDOE SLP) is a critical market for select commercial producers in American Samoa. More than one informal cooperative of producers supplies them with fresh fruit and produce throughout the school year which the ASDOE SLP purchases and menus for students on the island.

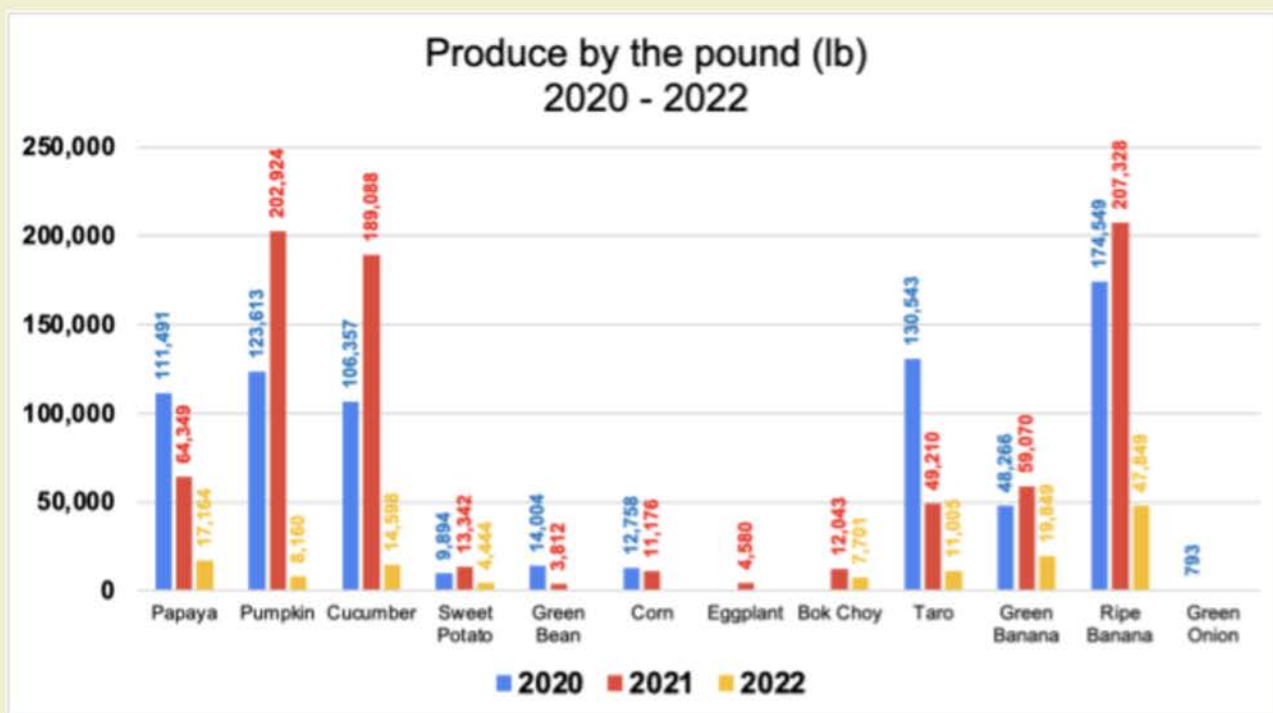


Figure 8: Poundage of local produce purchased by product through American Samoa's School Lunch Program, 2020-2022

Additionally, American Samoa participates in a Summer EBT program that provides flat rates of funding for each eligible child in a household to receive Food from the Department of Education in the summer months.¹² This allows producers to continue selling to this institutional channel (if in smaller volumes) during the months when school is not in session. While this institutional market is crucial for allowing local producers to scale their sales, it also highlights the limited market diversity and opportunities available to small-scale producers, and many farmers struggle to find consistent buyers outside of the Program.

Key Challenges in Access to Markets

Imported products almost always have a competitive advantage against locally grown products in terms of consistency, year-round availability, and (somewhat counterintuitively) price when compared to local produce. This fundamental challenge makes it difficult for local producers (especially small and mid-size ones who cannot leverage economies of scale to lower costs) to gain shelf space in retail locations or secure contracts with large buyers. While the direct-to-consumer markets described above are vital markets for many small-scale producers, it is access to larger wholesale, retail, and institutional markets that remains a fundamental challenge to their long-term growth.



Three issues converge to challenge producers and food businesses in this region when it comes to accessing new and larger markets, and these keep these businesses in a state of arrested economic development:

1. High costs of inputs like seeds, fertilizer, water, and equipment that is needed for basic production (and the associated exorbitant shipping costs of said inputs)
2. Underdeveloped infrastructure for processing, aggregation, and distribution
3. Low purchasing power of local population due to macroeconomic forces associated with Territorial status (including differences in wage law¹³ and restrictive trade rules)

As such, it is often difficult to isolate specific challenges these businesses face that don't implicate these upstream issues more closely associated with other stages of the food cycle (i.e. production, processing, aggregation, and distribution). That said, some illustrative examples highlight how- even after they find workable solutions to these challenges- small farm and food businesses in this region struggled to improve their market access.

In Guåhan, marketing campaigns for local food once focused on Guam's vibrant tourism industry and allowed producers and food businesses to target the island's \$80m+ annual tourist-generated revenues. Historical marketing efforts led by Guam Visitors Bureau created the Shop Guam | Taste Guam festival in 2013 which helped Guam's farm and food businesses appeal to the island's tourist economy, but this festival has not occurred since this time. Similarly, stories from established farm and food businesses suggest that the US military was a healthy sales outlet for local producers as recently as the 1980s and 1990s. Today, there is little to no procurement from local producers. Rather, smaller D2C markets that create sales opportunities for small-scale producers, leaving larger market outlets untapped.

On the island of Tinian in CNMI, cattle ranchers are a segment of producers who struggle to access any markets and beyond direct consumer, farmers market-style outlets. Despite being known for its cattle industry and beef production in the 70s and 80s, the only slaughterhouse on the island does not break down carcasses beyond quartering meaning that for a consumer of any kind to purchase primal cuts or even ground beef they must purchase a ¼ of the cow and pay for the processing to be completed, typically through a personal relationship with the local grocery store's butcher. This bottleneck severely restricts direct consumer, retail, and wholesale market sales of Tinian beef.



In American Samoa, the operator of a 4-acre dragon fruit farm (and several other producers) reported that after selling a portion of his harvest to the School Lunch Program, the rest often goes to waste because he cannot find buyers on-island for the remainder and he lacks the cold storage needed to preserve the remaining fruit for future sales. service contracts.

Overall, inconsistent institutional purchasing, an inability to capture wholesale demand of grocery stores, hotels and restaurants, and the struggle of meeting the volume, consistency, and quality requirements of these buyers leaves farm and food businesses losing out in competition from imported products that dominate store shelves and food service contracts.

Promising pieces of momentum and opportunities include:

There are several promising opportunities for small farm and food businesses in the Pacific subregion to access new markets, both within their local communities and beyond. One key area of potential growth is in selling to institutional buyers such as schools, hospitals, and military bases. The **Government of Guam** has a policy in place to prioritize local food procurement, and while implementation has been limited in recent years there is renewed interest in sourcing from local producers.

Similarly, the **U.S. military bases** in Guam and CNMI represent a significant potential market for local foods, and there are efforts underway to build the capacity of small producers to meet the requirements of these large buyers. On Luta in CNMI, local leaders like the **Mayor and Department of Land and Natural Resources** are coordinating the 42 registered farmers on-island and were, as of March 2024, holding demand planning conversations with the US Navy on Tinian. By seeking information about the products, volumes, and specifications of the food the Naval Advanced Base is purchasing, the Mayor intends to reactivate this once thriving market for local producers.¹⁴

Another promising market opportunity is in the tourism sector, which is a major driver of the economy in many parts of the subregion. Hotels and restaurants catering to tourists are increasingly interested in featuring local foods and flavors, and there are efforts underway to better connect small producers with these buyers. For example, **Farm to Table Guam** and Guåhan Sustainable Culture are working to develop a network of local farmers and chefs to promote the use of locally sourced ingredients in Guåhan's culinary scene.



In addition to these local markets, there are also opportunities for small producers to access new markets beyond their islands through e-commerce and other digital platforms. **Guåhan Sustainable Culture** launched an online marketplace to connect consumers with local there is potential to expand this model to other parts of the subregion. Additionally, there is growing interest among the Pacific diaspora community in the U.S. and elsewhere in purchasing foods and products from their home islands, creating a potential export market for small producers.

To fully realize these market opportunities, small farm and food businesses in the Pacific subregion will need support in a number of areas. This includes assistance with marketing and branding their products, navigating the requirements of institutional and other large buyers, and developing the infrastructure and logistics necessary to reach new markets. Additionally, there is a need for more aggregation and processing facilities to help small producers scale up and meet the demands of larger buyers.



🕒 Current Reality

Small and mid-sized farm and food businesses in this subregion face significant challenges in accessing capital to grow their operations. Challenges like the high costs of inputs and transportation due to the islands' locations make it difficult to scale and generate sufficient revenue to reinvest in the business, and this fundamental challenge keeps them in need of capital from external sources to develop. Because the challenges facing each program area outlined above are compounded for food business owners, many stagnate in their development.

Many producers in these islands expressed more interest in grants than loans, and many described needing micro-grants to help them make targeted investments in small equipment, infrastructure and utilities they need to stabilize their businesses. A similar trend exists for food businesses. There are also notable barriers in accessing existing federal grant programs due to language, literacy and skills gaps.

🕒 Relevant Actors and Networks

Across the region, six entities play particularly important roles in supporting farm and food businesses to access capital.

1. GUMA (Guam Unique Merchandise and Arts): GUMA supports value-added product makers (hot sauces, etc.) and other non-food products, and they are an active partner of Guåhan Sustainable Culture (GSC).
2. Guåhan Sustainable Culture: GSC itself supports local producers with grant applications and provides producers on the island with support accessing local and federal funding opportunities.
3. Guam EDA (Economic Development Authority): GEDA has identified the need to increase value-added products that are locally grown from an economic standpoint, and the entity connects businesses to other business development support resources.
4. Farm to Table Guam: As a nonprofit that runs a natural farm with a CSA program, they also support local farms and value-added producers with their business and financial plans.



5. Small Business Development Centers (SBDCs): As part of the SBA, the SBDC on Guam provides support for record-keeping and taxes for farmers in Guam and has done some support for small business training workshops for farmers, though the offerings have lacked farm-specific technical business knowledge.

6. NMC-CREES (Northern Marianas College - Cooperative Research, Extension and Education Service) in CNMI: As the Extension Agent in CNMI, they provide mostly technical assistance to producers, but also provide support to farmers about business regulations and importing. NMC-CREES has helped farmers identify grant opportunities.

Key Challenges in Accessing Capital

Farm and food businesses in these disparate island areas do share some key, core challenges when it comes to accessing capital. While, theoretically, most federal agricultural programs that provide funding through the USDA are available to them, businesses in these places rarely utilize these programs through FSA, NRCS, AMS, and other divisions of USDA. Many of the businesses we heard from discussed a strong preference- and at times need- for non-reimbursement based grant funding instead of loans or traditional financial tools to grow their businesses, and they described a need for the application process for these funds to be more straightforward and/or come with grant writing assistance.

This is particularly true for many of Guam's small-scale farmers, ranchers, and food businesses. In addition to funding programs, business development programs that are available through SBDCs lack the technical knowledge of agrifood systems, meaning farmers, for example, did not find their financial and business coaching applicable.

At different stakeholder meetings in CNMI (on Luta and Saipan), when asked "what [federal/territorial financial] support have you received for your farm or food business", a notable majority of stakeholders replied simply "none". It is clear that, whether or not they are aware of the details of the capital that is available to them through these government programs, farm and food businesses in these areas are not accessing them.

In American Samoa, the only on-island USDA offices are the Farm Service Agency (FSA) and Natural Resource Conservation Service (NRCS). These offices hypothetically provide important capital to producers through tools like insurance and loans (FSA) and grant programs (NRCS), but farms and food businesses in this territory receive a minimal amount of funds through them. Even when disasters negatively impact farmers' yields or sales, FSA programs like Noninsured Crop Disaster Assistance Program (NAP) insurance rules have stipulations that require producers to document more detail than they are accustomed to track harvests, sales, and damages to crops.



Promising pieces of momentum and opportunities include:

While small and mid-sized farm and food businesses in the Pacific subregion face significant challenges in accessing the capital they need to grow and sustain their operations, there are some developments that point to opportunities to address these challenges.

One key area of potential is in the development of new grant and loan programs specifically tailored to the needs of these businesses. For example, the **Guam Economic Development Authority (GEDA)** has identified the need to support value-added product development and has begun exploring the creation of new funding streams to support this work. Thanks to growing interest among local and regional banks and financial institutions in supporting the agriculture and food sector, **Small Business Development Centers (SBDCs) in Guam and CNMI** are seeking to bring the Small Business Administration's attention to the ag and food industries on-island.

Efforts to provide more technical assistance and support to help farm and food businesses access existing federal and territorial funding opportunities are critical to the maximizing the utility of existing sources of capital (like USDA grant programs). For example, **Guåhan Sustainable Culture** and other local organizations are providing grant writing workshops and plan to offer federal grant access workshops and one-on-one support to help producers position themselves to leverage these funds. Additionally, efforts to advocate for changes to these federal programs to make them more accessible and relevant to the unique needs and contexts of the Pacific subregion have organically developed from within USDA.¹⁵

By continuing to innovate, collaborate, and advocate for change, stakeholders in the subregion are working towards creating a more resilient food system that supports the long-term viability of these critical businesses.

¹⁵ Multiple USDA-AMS staff who have familiarity with unique challenges faced by Farm and Food businesses in this sub region have recommended that the Agency explore the development of a bureau or an Office focused on improving how the agency adapts its existing programs and resources to serve the Isolated and Remote Areas RFBC subregions.



The RFBC program is designed to support the “middle” of the value chain in local and regional food systems. This means it focuses not on production (the “beginning” of the chain) or consumption (the “end” of it), but on improving or expanding infrastructure for processing, aggregation and distribution, supporting small and medium-scale farmers and food producers in connecting to new markets, and providing technical assistance and training opportunities, particularly for historically underserved and marginalized food and farm businesses. This is especially meaningful for the Islands and Remote Areas RFBC region, whose states and territories face unique challenges given their geographic isolation, challenging logistics, underdeveloped infrastructure, and the profound impacts of colonialism, extractive industries and climate change.

The Centers will coordinate across regions with USDA and other agencies and regional food system stakeholders, identify technical assistance needs for their region and provide TA, and build capacity of their region’s food and farm businesses by directing financial assistance in the form of business builder subawards. Through these activities, the Pacific subregion and the Islands and Remote Areas RFBC will build more diversified, resilient, and localized food systems.





Since they began convening local partners in Summer 2023 to discuss the RFBC program, Guåhan Sustainable Culture (GSC) has served as the key partner for this Pacific Subregion of the Island and Remote Areas RFBC. After multiple site visits, several convenings of stakeholders on each island, and dozens of meetings with community leaders, farm and food businesses, and support actors, GSC has identified core priorities that it will address through the RFBC program. They are noted below.

By establishing these priorities, GSC and their Pacific subregion partners will work together to address the challenges described in detail above. With the Business Builder grants and Technical Assistance capacity this RFBC brings to the subregion, they will be able to provide the support that farm and food businesses in their region need.

For the Pacific subregion

- Gather and organize food systems data and information about funding, training, events and other opportunities
- Increase the volume and sustainability of value-added processing in each territory
- Develop a farm and food business support center to build business capacity, resilience, and efficiency for businesses on each island
- Develop food hubs for food aggregation and distribution

For Guåhan

- Foster increased market demand for locally produce foods with marketing

For CNMI

- Target development of meat processing capacity (particularly value-added processing with meat on Tinian)
- Foster food sales between islands in the Marianas (Saipan, Tinian, Luta, and Guam)

For American Samoa

- Increase infrastructure development for cold storage and value-added processing to facilitate more market opportunities for farm and food businesses



1. Borrowing from Value Chain Coordination language, “transactional actors” describes entities whose activity in the value chain includes the production, processing, aggregation, distribution, or purchasing of food whereas “support actors” refers to organizations and entities who support that work but do not transacting themselves.
2. Program Areas include: Production, Processing, Aggregation, Distribution, Access to Markets, and Access to Capital.
3. We do not explore Relevant Actors in the Production Program Area so as not to present individual farmers as more relevant than others in this subregion.
4. Data Source: 2018 USDA Ag Census
5. Letter from American Samoa Office of the Governor to US House of Representatives Committee on Natural Resources September 16, 2023 (<https://tinyurl.com/bp5vds8w>)
6. Data Source: National Weather Service as reported by Pacific Daily News, April 27, 2024 <https://tinyurl.com/4pyun6ax>
7. As outlined elsewhere in this report, while this USDA-Inspected facility offers the capacity to locally slaughter, the USDA inspector who must be onsite for the process must fly in to the islands to supervise slaughter, adding another step in the process and another layer of complexity to the system.
8. While >95% of their catalog reflects products that are imported from mainland US sources, IDI advertises providing locally grown items like herbs, coconut, lemongrass, and bittermelon. ([Catalog accessed](#) May 15, 2024)
9. Recent article highlighting reports of RT&T price gouging and abusing its sole source contract with Port of Rota <https://tinyurl.com/2uvrwn5m>
10. *Fa’a Samoa* means “the Samoan way” and it’s a phrase used to share that family is important, elders are to be respected, and that one should do their part or duty. It encompasses etiquette, social organization, and responsibilities. *Va fealoa’i* is a concept that refers to “nurturing the space between people; and between people and nature” and is central to the conceptualization of food production and a life in harmony with nature in Samoan culture.
11. USDA-FNS Press Release on American Samoa, Jan. 29, 2024 <https://www.fns.usda.gov/news-item/wro-012924c>
12. As of writing, while Guam’s current minimum wage is set at \$9.25, there is special treatment with the Fair Labor Standards Act of the US Department of Labor for CNMI and American Samoa. CNMI’s minimum wage has rapidly increased to meet Federal guidelines at \$7.25/hr. In American Samoa, though, new minimum wage rates vary by industry and range from \$4.18 - \$5.59, with the largest industry on-island (fish processing and canning) having a \$5.16 wage. In both Territories, businesses on nearby island nations have drastically lower labor costs and, as such, gain competitive advantage over small farm and food enterprises in CNMI and American Samoa.



13. Several farmers on Luta and Tinian shared detailed accounts of military C-130 cargo planes landing on the islands and purchasing all the food that local producers could sell at that time. This historical market strengthened the positive opinions that locals held towards the US military, and many of the farmers expressed feelings of being forgotten or outright betrayed when military procurement stopped (anecdotally, around the mid-90s).
14. USDA-AMS staff who have familiarity with unique challenges faced by farm and food businesses in this sub region have recommended that the Agency explore the development of a bureau or an Office focused on improving how the agency adapts its existing programs and resources to serve the Isolated and Remote Areas RFBC subregions.