

ADAP is tackling the food security implications of climate change, rising sea levels, and fuel costs for the Western US and Pacific Territories.

he recent launch of the Agricultural Development in the American Pacific (ADAP) Regional Food Security and Sufficiency Project brings together community, local, state and regional expertise around a common high-impact programming or participatory governance to:

 Develop working groups to explore each island's challenges to sustainable agriculture and food security, and explore the cultural and economic barriers to island agricultural sustainability.

- Develop an integrated program that allows community members to make informed decisions about a healthy diet through sustainable, backyard agriculture.
- Match appropriate agricultural technologies to community and island needs.
- Identify government level challenges to sustainable region-wide agriculture, such as trade tariffs and agricultural water rights.

This collaborative programming signature serves as a useful and effective cultivating tactic allowing regional teams to address common area issues with emphasis on the human and education side. This capacity development strategy continues to support the need to establish a series of complimenting regional food policies sensitive to the areas diverse food system. The Pacific Land Grant Alliance (PLGA) and ADAP in November 8, 2008, convened planning forum entitled: "Staying Ahead of the Tipping Point." This forum expands on the future of agriculture with emphasis on Food Security in the Pacific. The workgroup focused on understanding unique vulnerabilities communities may face in addressing the associated issues around food security, food systems and the current knowledge and data available to the community.

While the issues commonly associated with food supply can cover a broad area, food production represents a small but important part in this forum. The ADAP-led effort attempts to align the Food Security and Sufficiency projects programming framework. A noted interest lies in threats associated with food supply interruption and high reliance on the volume of imported foodstuff.

The focus on Food Security represents the latest effort toward localizing and embracing the overarching idea of the "ecological footprint" as referenced in Kent's (2008) forum presentation "Food



The implications of climate change reframes a role that the ADAP consortia has a natural advantage to serve as the early warning system related to rising sea level threats and the associated fuel issues influencing imported foods.

and Nutrition Security in the United States-affiliated Pacific Islands." This ecological reference provides the broader and challenging context of defining the agricultural interest amid the myriad of causes driving resource consumption and known ecology pressures. This also includes expanding the circle of food security advisers from the current workgroup represented in the forum. Participants include a food security expert, administrators, program leaders, economists representing both Research and Cooperative Extension and University/college programs and collaborators. This initializing workgroup contributes toward identifying and expanding the related food-agricultural assets and expertise necessary to address the issues identified by the team. The joint sponsorship represents a commitment to unify common issues noting Food Security as one focus area. Other emphasis areas include climate change, energy security, invasive species and biological threats, and health and lifestyle impacts.

The highlights of the November 2008 Food Security meeting forum focused on three areas: Availability, Accessibility and Use. As a starting point, each cooperating area will conduct a community assessment

and compile their respective version of a food-system asset map. The community assessment will provide the necessary background and information to gain an understanding of the issues making up the region's food security and sufficiency issues. Addressing dependency issues around food and more importantly, the questions of where is the next food source coming from and how to improve our current food security system remain important concerns.

In Guam's case, creating a food security monograph, which will evolve from the initializing assessment efforts, will provide a better sense of data needs and understanding the island's food system. The implications of climate change reframes a role that the ADAP consortia has a natural advantage to serve as the early warning system related to rising sea level threats and the associated fuel issues influencing imported foods. Other concerns expressed include understanding food production practices and associated ecological drivers supporting each jurisdiction as well as considering other transformative strategies and opportunities not readily apparent as a result of these ecological pressures.

From this Food Security effort, the workgroup through ADAP and the PGLA

hope to create start points for food security strategies. Such strategies should address current food systems for the alliance and decide common accessibility issues related to the at-risk or marginal groups to food. This includes a similar interest in defining a food uncertainty strategy associated with disasters and readiness action plans. Perhaps this recent interest around food security can serve as the front-runner for leading the regionalization of agricultural programs that can lead toward shoring up both the knowledge base and capacity for timely Pacific Alliance programming.

An important concern raised in this forum is who exactly leads this and why. For Guam, from this printing, a food security workgroup comprised of dedicated and highly charged faculty, program staff and graduating seniors are underway in developing a program design and conducting its food security community reconnaissance to include a food security focus group and a Food System asset map. The workgroup remains excited and looks forward to this important work effort and creating its first food system monograph.

About the Author

Peter R. Barcinas, Program Leader, Economic and Community Systems, University of Guam Cooperative Extension Service. Mr. Barcinas continues to participate in many regional forums and initiatives that range from workforce development, capacity building and strategic planning and community asset mapping efforts.

References

Kent, George. "Food and Nutrition in the United States-affiliated Pacific Islands." Hawaii, Staying Ahead of the Tipping Point [Forum]. University of Hawaii. November 8, 2008.

Land Grant Institutions of the Pacific. Agricultural Development Project in the American Pacific (ADAP) Year 22 Plan of Work. Retrieved October 14, 2009, from http://www.ctahr.hawaii.edu/adap/information/meetings/Yr22_POW.pdf

Pacific Land Grant Alliance. [Brochure]. c/o ADAP Home Office College of Tropical Agriculture and Human Resources, HI.



Agricultural Development in the American Pacific Food Security Projects

College of Micronesia

The College of Micronesia (COM) project staff are working to revitalize a traditional crop and farming system. Traditionally, Micronesians grew root crops in a way that should the island be inundated with storm surge, and the farms flooded with seawater, there were a few hardy varieties of plants that survived and would sustain the community. Due to the threat of rising sea levels, this work is even more important. Last year the staff began propagation of

plantlets of the hardiest varieties of sweet potato, taro, and other staple root crops, for distribution to outer island communities in the Republic of the Marshall Islands, and the FSM States of Pohnpei, Chuuk, and Yap. This year, COM plans to continue the propagation and distribution of plantlets to the smaller, outer islands in the region. Distribution of the plantlets will be accompanied by a workshop on gardening techniques.



University of Alaska Fairbanks

The project staff at the University of Alaska Fairbanks are focused on several projects including 1) gathering primary data from food importers to determine amount by weight and value (where possible) and by major food category (e.g. potatoes, onions, bread, beef etc.) shipped into Alaska from outside its borders; 2) gathering detailed

information of production from greenhouse operators that is not currently collected by the Alaska Agricultural Statistics Service; and 3) gathering secondary information on consumption in rural and urban Alaska including calculating consumption using consumption coefficients for the United States. College staff will publish the results of the information gathered concerning the amount of food that is imported into Alaska and the vulnerability of the Alaska population to any interruption in the food supply chain. It is also planned to coordinate two workshops in Anchorage and Fairbanks and a media campaign (radio and television) to show people the importance of some degree of self-sufficiency that will reduce the amount of food imports and give helpful hints on what everyone can do to help. This year UAF plans to support two additional workshops and media outreach for Juneau and the Kenai Peninsula. Also, in June 2010, food importers and distributors identified in surveys will be contacted again for updated figures on food imports to Alaska.

Northern Marianas College

The project staff at Northern Marianas College (NMC) sponsored an agriculture summit to discuss emerging concerns relative to food production. At the conclusion of the agricultural summit, CNMI will have an agriculture strategic plan. NMC will develop the expertise of the local extension agents in aquaculture and farming to be able to provide the necessary expertise to assist in the development of the agriculture and aquaculture industries. This year NMC plans to further assist in the development of both agriculture and aquaculture by building a small aquaponics demonstration plot. Aquaponics has the potential to be very useful in Saipan, where all freshwater comes from wells and all fertilizers are imported. By combining the two systems, a sustainable system can be created that optimizes water use and minimizes the need for importing fertilizers.

University of Hawaii

Project staff at the University of Hawaii point-of-purchase signage growers to identify allowing where products were grown in the Islands. Besides price, one of the other reasons that there is not a demand-pull for locally-grown produce is that many consumers cannot easily identify products that are grown in Hawaii – products are not often labeled by origin. This has changed a little, due to the Country of Origin Labeling law, but farmers themselves are not in tune with promoting their product over an imported one. This work compliments the ongoing Hawaii Farm Bureau Federation's Buy Fresh - Buy Local campaign. Signs, for various uses and of various sizes, will be developed by this project for use by Hawai'i growers and retailers. The templates will be available for anyone who wishes to buy additional signs. This year, University of Hawaii hopes to expand the program to growers in Hawai'i (both on Oahu and all neighbor islands).

The PGLA is comprised of the six US Pacific Land Grant institutions. The Alliance theme "Pacific Gateway communities, environments, and economies in harmony" captures the essence of the membership which includes: the American Samoa Community College-Community and Natural Resources, College of Micronesia-Land Grant Programs, Northern Marianas College-CNMI Cooperative, Research, Extension and Education Service, University of Alaska Fairbanks-School of Natural Resources and Agricultural Sciences Agricultural and Forestry Experiment Station, University of Guam-College of Natural and Applied Sciences, and University of Hawai'i at Manoa-College of Tropical Agriculture and Human Resources makes up the current PGLA consortia and serves as the latest addition to the organizational map.