2008-2009

North Shore Food Systems Study:

Findings
Introduction

Project Background:

The North Shore Food Systems Project grew out of ongoing discussions around the idea of “sustainability” and island food security, culminating in a project focused on understanding the needs of North Shore growers. To reduce the island’s vulnerability to fluxes in energy, transportation, and import prices, to build a resilient community, and to further develop Kaua`i’s agricultural industry, we must understand the challenges facing current food growers. Understanding the needs of those that are already farming will help us to sustain our small market share of food production and also to expand it by reducing primary barriers for new farmers. Agriculture is imperative to the self-sufficiency and security of Kaua`i and the people who call Kaua`i home.

The findings presented here are an amalgamation of information compiled from 20 one-on-one interviews with small-scale food producers on Kaua`i’s North Shore, as well as others involved in the food system chain, including chefs, restaurant owners, and specialists statewide. The growers interviewed represent a spectrum of small to mid-sized farming operations utilizing various methods. Interview questions included general information about the operation, communication, markets and distribution, value added products, and diversified income stream opportunities.

For a complete list of interviewees and interview questions, please refer to the Appendix.

Project Need:

The need for this project and for other studies related to agriculture stems from the fact that Kaua`i is an isolated island over 90% reliant on outside food, and an island that has been hard hit by global economic events. As stated by the Rocky Mountain Institute in their study of Hawai`i Island, “The low local market share (15 percent) for food and the high price residents of Hawai`i pay for it (22 percent of average income, opposed to 13 percent on the mainland) are problems that degrade the Island’s economic and environmental sustainability, as well as quality of life” (Island of Hawai`i Whole System Project).

The rising cost of living and decline of Kaua`i’s major revenue generating industries exhibit the immediate importance of building economic resilience by becoming more food self-sufficient and building the agriculture industry. According to the 2008 Hawai`i Department of Agriculture White Paper on Food Self-Sufficiency in Hawai`i:

Between 85-90% of Hawai`i’s food is imported, which makes it particularly vulnerable to natural disasters and global events that might disrupt shipping and the food supply. ...There can be no local food without local farms. Increased food self-sufficiency in Hawai`i requires a sustainable agricultural industry.

To maintain and grow agricultural production on island, we need to understand the current challenges facing local farmers, and begin to identify the most immediate solutions and opportunities.
Benefits:

If properly developed and implemented, infrastructure and programs that support local agriculture have far reaching benefits. By better understanding the state of agriculture on Kaua`i today, we hope to benefit farmers and our island community at large. The benefits of increasing local agricultural production are many, including:

- Increased self-sufficiency
- Reduced dependence on imports
- Economic diversification and stimulation through the multiplier effect
- Less money leaving the economy to pay for imports
- Decreased vulnerability to food or oil supply disruptions or price increases
- Maintaining rural atmosphere and open spaces
- Reduced risk of importing invasive species
- Decreased food miles and resulting reduction in Hawai`i's carbon footprint
- Promotion of a healthier lifestyles and good nutrition
- An enhanced island experience for visitors.

Increased economic activity within the agricultural sector is especially important today, as our primary revenue generating industries continue to suffer. According to one study conducted in 2008,

“Replacing just 10% of the food we [in the state of Hawai`i] currently import would amount to approximately $313 million. Assuming a 30% farm share, $94 million would be realized at the farm-gate, which would generate an economy-wide impact of an additional $188 million in sales, $47 million in earnings, $6 million in state tax revenues, and more than 2,300 jobs” (PingSun Leung and Matthew Loke, HDOA White Paper).

The Process:

Through direct conversations with North Shore Kaua`i farmers, Mālama Kaua`i gathered information related to barriers to product distribution, information and education, access to markets, value-added products, and diversified streams of income. Through further discussion with others involved in the local food product supply chain (grocers, chefs, food distribution companies, etc.), we were able to put together a more holistic study of agriculture on Kaua`i's North Shore.

Interviews were conducted by the Mālama Kaua`i staff at local farming operations, as well as over the phone with specialists on Oahu and Hawai`i Island. The study's findings organize the information gleaned from these interviews. Although farm interviews were conducted solely on Kaua`i's North Shore, we do believe that most of these findings are applicable to small and mid-sized farming operations across the island. We would like to expand this study to include the entire island should funding become available. Expanding this study across the island would also help to insure that a broad variety of farming techniques and practices are included, as the North Shore tends to be more heavily involved with organic and other “sustainable” agricultural practices.
Outcome:

Interview research suggests that it is possible to increase Kaua`i food production through infrastructure improvements, educational opportunities, consumer awareness, farm-to-farm communication and partnerships, policy change, and other specific solutions mentioned below. The challenges and opportunities discussed in this document are primarily a summary of information provided by interviews listed in the appendix, and have not been thoroughly researched by Mālama Kaua`i beyond this. Many of the findings merit additional research.

Findings

Barriers to Kaua`i Agricultural Production:
Not listed in order of priority or preference

Through the interview process we collected a variety of information that we consolidated into 16 main barriers that North Shore farmers face, which have been organized into three categories. Nearly every grower interviewed touched on these topics as key to supporting local farming operations. Not included below are initial findings on barriers facing local meat and dairy production. More research is needed in that field, and we suggest that this be a priority of government or any group interested in increasing agriculture production on Kaua`i.

I) Cost of doing business on Kaua`i

1. Affordability of and access to land on Kaua`i
   The high demand for Kaua`i’s beautiful land and vistas make the cost of undeveloped land considerably high, and it can be hundreds of times more profitable to sell land for development purposes than to farm it. For growers already producing food, the possibility of expanding a successful farming operation is often near impossible, while the possibility of owning land for young or beginning farmers seems out of reach. Further analysis is needed to look at options that would ease the pressure of land acquisition, such as reasonable long-term lease options or no-interest loans for those wishing to buy farm land for agricultural purposes.

2. Labor Affordability and Farm Worker Housing
   When asked how the government could help, the number one response from growers was “farm worker housing.” Meager farm salaries make it difficult to pay for necessary work assistance. One solution is to allow for work-trades where farm-workers pay their “rent” on the farm by assisting with farm activities for a specified number of hours each week. There are model programs throughout the nation and world that facilitate these types of work-living exchanges. As of March 2009, a Farm Worker Housing Bill is being heard before the Planning Commission. This bill was drafted by a coalition of farmers, council members, sustainability organizations, the Planning Department, and Department of Taxation. There are concerns that the bill could be exploited by non-farmers seeking additional building density, but the hope is that these loopholes can be addressed through amendments currently being considered. For more information and a copy of this bill, contact info@malamakauai.org.

3. Cost of Inputs
   Kaua`i is one of the most geographically isolated places on the planet, and an island separated from the continental United States by 2,500 miles and two ports. This fact alone explains why the cost of farm inputs (the resources that are used in farm production, such as fertilizer, equipment, feed, seed, and energy) becomes astronomically high once packaging and shipping costs are factored in. Most growers on island buy from UAP and BEI, two local stores offering a variety of farm inputs. It is important to study different possibilities, such as farmer purchasing cooperatives, to minimize the cost of these imported goods. Even more importantly, we must explore options for locally-produced inputs that keep money on island, reduce
vulnerability to changes in the global market, and contribute to the overall sustainability of our food systems. Possible local inputs include high quality compost and fertilizers, seeds, pots and seed trays, tools, and more. Mālama Kauaʻi, with a small group of farmers and gardeners, has begun to research possibilities for soil amendment purchasing cooperatives, and developing a steady market and distribution system for locally sourced inputs.

4. **Cost of Equipment**
   Farm equipment is an expensive investment to make for a small-scale farmer. To allow for more affordable and easier access to equipment, it is important for further research to explore equipment cooperatives, subsidies, or leasing arrangement options.

5. **Need for more diversified income**
   Until there are systematic solutions that address the economic viability of agriculture, many growers must develop diverse streams of income. This may be done through a variety of business ventures, such as farm tours, vacation rentals, value-added products, landscaping plants, leis or bouquets, or even through offering such services as a recording studio (Steel Grass Farms). Allowing true farm operations to offer a variety of goods and services that supplement the operation’s income can be what makes them viable. In addition, many of these local goods and services will also further promote consumer support for local agriculture. However, it is important that regulatory structures are created to insure that these opportunities are not abused, as in the example of exclusive vacation rentals on agricultural lands that produce no food.

6. **Affordability of liability insurance needed to sell to grocers**
   Growers are required to have a one million dollar farm liability insurance policy in order to sell to grocers and many other outlets. It’s difficult for many small scale growers to afford this annual expense (about $500), and there needs to be further discussion about collaborating to create insurance coops or subsidized insurance options. Adaptations, a small distribution and marketing company on Hawaiʻi Island, helps liability insurance that covers the growers they distribute for.

II) **Infrastructure and Communication**

7. **Availability and Access to Ag Water**
   Ag water systems in the past were maintained by the plantation. After the Kaloko Dam break, liability has taken precedent over maintaining highly valuable water systems, and reservoirs have been drained to prevent lawsuits. Private property rights and multiple landowner issues also add to the complexity of maintaining critical irrigation systems. For many farmers in the Wailapa and Kilauea Farms area, water has become an enormous challenge. Several farmers that are reliant on the Koloko irrigation system have lost crops, and some have even gone out of business. Growers have spent countless hours trying to organize and work with the state to maintain this system, valuable time that is taken away from their farming operations. Other water rights disputes have arisen on Kauaʻi’s North Shore in recent years as well.

8. **Lack of communication between growers**
   There is currently little communication between growers on the North Shore, which is exacerbated by the commonly touted myth that growers don’t want to share information in order to better protect their competitive edge. However, there is increasing interest among growers to discuss best practices, learn about business and marketing from successful operations, and to better represent collective small-scale growers’ interests. Such communication is vital to both new and experienced growers and can serve not just as an educational framework, but also as a support community that could lead to the formation of cooperatives and other partnerships. Mālama Kauaʻi will be facilitating the creation of a Farmers Club for interested growers on the North Shore. This Farm Club will meet monthly at alternating farms to share best practices and learn from one another.
9. **Need for a distribution infrastructure**
   One of the biggest complaints among buyers is the lack of streamlined distribution of locally-grown food. Many growers have a diversified crop and therefore don't have enough of a single crop to consistently satisfy an outlet. A local food distribution company would help to solve this problem by buying enough quantity from many small scale farms to satisfy large outlets, such as restaurants and grocers, on a consistent basis. A small-scale distribution company would also give farmers a consistent outlet for their product so that they could spend more time producing food and less time trying to find markets. Mālama Kaua‘i is currently researching successful models that could be implemented here, such as Adaptations on Hawai‘i Island.

10. **Lack of market information and communication infrastructure**
    Although experienced farmers can grow nearly anything that's able to on Kaua‘i, lack of market information and direct communication with buyers slows movement and dialogue in this area. There is a need for a space where farmers can connect with buyers to create “ask-and-grow” programs, acquire information about market demand, and work with other farmers to fill orders. Mālama Kaua‘i is looking into web-models that could help to fill these communication gaps, and hopes to offer an easy-to-use online forum in 2009. If properly funded, this site will include a farmers directory listing location, contact, goods, capacities for specialize commodities; a nursery directory listing producers, specialized commodities, capacities; classified listings (similar to craigslist functionality) including farm produce, nursery products, farm supplies, farm services, and farm equipment; a forum devoted to multiple ag areas, including distribution; a compilation of all links to funding sources and other ag opportunities; access to data stores (compiling and simplifying market data would be ideal, but would take increased management).

11. **Need for a Community Commercial Kitchen**
    A community commercial kitchen is perhaps the single largest barrier preventing farmers from increasing revenue streams, supporting entrepreneurial activity, and strengthening the value-added products industry on Kaua‘i. Value-added products, such as pesto from basil or salsa from tomatoes and onions or locally produced cheese, offer significantly more revenue per pound of produce than their unprocessed counterpart. Additionally, value-added product processing would allow for greater food storage, decreasing reliance on imported goods and increasing the market share for local foods. Every farmer interviewed expressed a strong desire for a commercial kitchen space as an added benefit to their current operation.

12. **Ability to sell value-added products at Sunshine Markets**
    Most growers interviewed expressed interest in selling value-added products at Sunshine Markets, and believe it would help to make their operations more economically viable. Currently, growers can only sell fresh produce at county Sunshine Markets. Value-added products, such as locally produced goat cheese, are prohibited. Allowing value-added products at Sunshine Markets would help to foster entrepreneurial activities among island residents, who would have an outlet for their homemade jams, soups, chocolate, macadamia nuts, and more. Increased production of value-added products will assist in moving the island towards greater food self-sufficiency.

### III) Training, Support, and Education

13. **Need for educational and professional training opportunities for growers**
    Because of the lack of opportunity to expand farming operations due to high land prices, there is a need to increase the efficiency of output on small-scale farms. To do this, there must be advanced training programs and educational opportunities for farmers to increase their knowledge and experience, learn about specialized mechanization, and better their marketing and business skills. Suggestions included an agricultural library with relevant tropical growing information, training programs led by skilled professionals, and even demonstration farms. There is also opportunity for farmers to educate one another, as discussed above.
14. **Lack of curriculum behind school garden programs**

Although there are school gardens at numerous Elementary Schools on the North Shore, there is a need to increase agricultural education in schools. This includes increased integration of daily curriculum with ag and garden projects, field trips to farms, and offering local food for school lunches. Supporting agricultural education from a young age will create lifelong awareness and appreciation for local food and farmers, as well as help to cultivate a new generation of island growers.

15. **Need for support of young and new farmers**

All the barriers listed above create a nearly insurmountable barrier to any young or new person desiring to become a successful farmer. In order for true sustainability in this field, there needs to be better support programs and training opportunities for young farmers to allow them to better integrate into this profession. Numerous studies have shown that nation and state-wide, the average age of farmers is increasing rapidly. There is currently one Farm-Incubator program in Kilauea (Seed to Table-A 12 week "hands-on" Farm Training Program through Kaua`i Farmers Coop) and several back-yard gardening courses and workshops are being offered through Mālama Kaua`i and Kaua`i Community College Office of Continuing Education. The demand for these programs is high, and there is a need for more programs and more diverse curriculum. There is a lack of quality, on-island farmer training in financial literacy, marketing, and cooperative basics, as well as information about working with restaurants and wholesale buyers.

16. **Increased research for small-scale food production and export**

University research and experiment stations have traditionally spent a majority of resources on large commercial monocrop agriculture, often overlooking the needs and contributions of smaller operations. A majority of North Shore farming operations need the support of research institutions in topics such as efficient and intensive crop procurement methods for small-scale production, sanitation/export facilities that allow for small batches of crops, and better land management practices that focus on weeds such as nut grass. Farmers working together to share best practices and experiment with different growing methods will assist in some of these areas.
Conclusion:

The research conducted has led us to conclude that although local agriculture currently holds only a 10-15% market share in local food consumption, the barriers facing growers to increase that market share are not insurmountable. With the help of a variety of stakeholders, Kaua`i can increase our local food production, which will prove to be an economic benefit to the island. Local agriculture can provide meaningful jobs and stimulate the island’s economy, as well as ensure food security.

Further research is needed to better examine each of the specified barriers and to better define goals and solutions. More interviews with growers across the island are necessary to determine if they are facing similar challenges and limiting factors - especially since the North Shore tends to be more heavily focused on organic and “sustainable” farming practices, and may not represent the needs of all of our island’s growers. Similar interviews and deeper research needs to be done on the meat and dairy industries.

Supporting local farms and food systems is imperative to both the health of the `aina as well as the well-being of the people who call Kaua`i home. In order to create a thriving food system independent from the fluxes of the global economy, commodity prices, and natural disasters, immediate action is needed to support current growers, as well as to foster the development of new farming operations.
A: Interviewees

Farms/Farmers Interviewed: listed in order by date interviewed

1. Ned and Marta Whitlock; Moloa’a Organica’a, Moloa’a Vista. 651-1446
2. Hugh and Rosa Russell; Akawaganugi Farms, Kilauea Farms. 635-3991
3. Tim O’Connor; La Ola Organic Farm, Moloa’a. 828-6130
4. Liz Ito, President HTFG Kaua‘i; Kalamania Farms and Woods, Kilauea. 828-1514
5. Scott Pomeroy; Nectar Gardens, Moloa’a Vista. 639-8630
6. Jillian T. Seals; Kauai Farmers Coop, Kilauea. 828-0800
7. Louisa and Bob Wooten; Kaua’i Kunana Dairy, Waipake. 828-0095
8. Kelly and Yuichi Sato; SOS Farms, Kilauea. 346-6843
9. Patricia; Kahili Beef, Kilauea. patra@kahilibeef.com
11. Phil Green; Kaua’i Organic Farms, Kīlauea Farms. 651-8843
12. Lee Roversi; North Country Farms, Kīlauea. 828-1513
13. Jason Ito; Wai‘oli Farms, Hanalei. 630-1760
14. Sam; Kaua’i Fresh Farms, Kīlauea. 828-0077
15. Sun and Lisa; Moloa’a Growers. 635-3020
16. Phil Davies; Kailani Farms, Kīlauea Farms. 639-1355
17. Jorge Ayala; Kaua’i Mac and Farm, Kīlauea. 634-6673
18. John and Nandie Wooten; Wootens Produce of Kaua’i, Anahola. 823-6807
19. Shawn Lake; Aina Love Gardens, Moloa’a Vista. 652-7689
20. Rodney Yadao; Yadao Farms, Moloa’ a. 828-1717

Chefs, Grocers Interviewed: by date
1. AJ Irons; chef at BARacuda and Iron Chef. ironsai@yahoo.com
2. Jim Moffat, owner and chef BARacuda. tapas@restaurantbaracuda.com
3. Monique Dehne, Co-owner Healthy Hut Grocer. Healthyhutkauai@aol.com

Other Individuals and/or Organizations:
1. Ken Love, President HTFG Hawai‘i; Big Island
2. Miles Hakoda, Buy Fresh Buy Local and CTAHR; Oahu
3. Maureen Datta, Adaptations; Big Island
4. Melissa, White Dog Cafe Foundation; Philadelphia, PA

B: General Interview Questions for Growers

General info:

1) How old is your farm? How big?
2) What are the main crops do you grow/sell? How much?
3) Do you deliver to stores or have a delivery day?
4) Do you have a delivery or order method?
5) Where do you buy your inputs from? If there was a local option would you purchase that instead?
6) Do you compost on site?
7) Would you be willing to accept compost material from local restaurants? Would you be able to pick up these materials? If not, would you allow them to be dropped off?
8) How many people do you employ?
9) Are you certified organic, organic, non-spray, or conventional farm? If you’re not organic, do you want to be? Do you grow GMO crops? Would you prefer to/not to?
**Distribution**

1) About how many people would you say your operation feeds every week?
2) Where do you sell your produce?
3) What markets would you most prefer to sell to? What would your ideal sale situation look like?
4) Would you be a part of an “ask-and-grow” program, where restaurants form a relationship with farmers to grow exactly what they need?
5) Are there barriers preventing you from distributing with such companies as Esaki’s?
6) Would you be a part of a local distribution company if there was one?
7) Would you be willing to or capable of selling your products wholesale?

**Barriers**

1) What are some of the largest barriers you face as a farmer? Including career/economic feasibility, access to markets, water, workers, transportation, etc.
2) What barriers are most keeping you from selling to schools, restaurants, or grocery stores?
3) How would you like to promote local food? Buy local campaign, etc...
4) One barrier to getting local food into grocery stores is the issues of consistency, both of supply and quality. Would you be willing to work with an “organizer” that could help make this happen?
5) How would you like the government to help?

**Communication**

1) Would you like to know your North Shore or Island farmers better or have a better idea of what they’re growing?
2) Would you be interested in being a part of a farmers association to discuss issues, policies, and solutions? To act as a constituency?
3) How would you like to better communicate within the industry? With society/consumers?
4) If you could convey a message to consumers, what would it be?

**Value-added Products**

1) Do you make or want to make value-added products from your produce?
2) How would this be easier for you to accomplish?
3) How helpful would it be in making ends meet?

**Furthermore**

1) What would be the biggest impact or benefit to your farming operation? Would someone be able to help facilitate that?
2) Do you have any skills you’d like to share with the community through workshops? Coconut prep, water catchment, etc?
3) Would you like your information on our Project: Food map project? How much information can we display about your farm?
4) Would you be interested in being a “farm tours” participant?
5) Would you be interested in being part of an equipment co-op with other small farmers in your area?
6) Would you be interested in buying fertilizer, equipment, etc from a bulk farm buyer (like a coop)?

**C: References**