

D R A F T

Strategic Plan for **Food Self-Sufficiency** for the Island of Kauai

The need for a strategic development plan to achieve food self-sufficiency for the island of Kauai stems from:

- 1) A series of recent developments that are challenging the adequacy of our food supply worldwide and
- 2) From the need to assess the current resources on our island and begin employing them in more effective ways to feed ourselves.

The plan outlined below suggests ways to accomplish food self-sufficiency by building a well developed and efficiently managed industry that can creatively use of our island's human and material resources.

Brief Background

In recent years the small island of Kauai has experienced dramatic changes. It has grown from a predominantly agriculturally oriented island dominated by sugar and pineapple plantations into a visitor-oriented destination dominated by world-class resorts, upscale time-share condominiums and luxury homes.

The significant changes have included:

- a population explosion
- rapid economic development
- traffic growth
- increases in the number of imported food products
- a decline in locally grown food

These changes have produced a climate of prosperity and fostered a public attitude of general complacency. The island has been characterized by a feeling of abundance:

- lots of people (a resident population exceeding 65,000 and a visitor count of a million plus)
- jobs for all
- a housing boom (but mostly too expensive)
- plenty of cars (maybe too many at times)
- grocery stores with both an abundance and variety of food products
- lots of land going into commercial, resort and residential development but with a resulting decline of farm land causing a negative impact on local food production as thousands of these acres (that were formerly zoned for

agricultural) are lost to commercial development, along with a rash of small farmers selling out to a wave of wealthy new residents

But then in 2007-08, the prosperity bubble burst.

- transportation costs increased dramatically, airlines folded, shipping lines raised prices in response to the oil crisis
- the cost of living on the island sky-rocked causing an out-migration of middle and lower-class workers needed for vital services (including farming)
- the building boom hit the wall and major developments were halted contributing to growing unemployment
- the easy boom was over
- and food prices shot up and food shortages loomed on the horizon as the national and international food industry began a downward spiral
- and then the financial market slowly edged toward a point of collapse world-wide

These and other factors ended the era of complacency and served as a wake-up call.

Going Forward

The question being asked by many Kauai people is “what can we do?” In these times of crisis public concerns arise regarding energy, food, employment and other vital components needed for community welfare.

The following plan examines ways to help restore stability to the community with at least one vital component, that of our food supply. It outlines the basic steps that are needed to create a new level of food production and emphasizes the importance of manpower as a vital factor.

Restructuring Kauai’s Food Industry

It may seem presumptuous to talk about “restructuring” the island’s food industry but in reality that is precisely what is needed. Kauai no longer has a well-functioning local food production industry, instead it has a food importing industry. An average of 90% of the island’s food is imported. With transportation costs rising, many products will soon be more expensive to ship than to produce. It is truly necessary that we rebuild our local food industry, from bottom to top. The suggestions outlined below will require review from many quarters and are offered here as a starting point.

The essentials of any industry are often somewhat similar and generally include: leadership, planning, financing, education & training, administration/ management/ coordination, manpower/labor, facilities/land, equipment, supplies, marketing/sales, regulation, research and development for healthy growth. These are outlined below.

Leadership

A Leadership Council is needed to assume responsibility for the effective growth of the industry, to establish the mission and goals, to determine the resources that are available and needed, and to guide the planning and efficient development of the industry by attracting the best human resources and employing the most productive material resources.

This Leadership Council must create policies and procedures to guide both the start-up and the future evolution of the industry, and establish ways for the continuous evaluation of results leading to on-going improvements. It must find ways to encourage residents from all walks of life to become engaged in and/or supportive of all levels of food production, from backyard gardens to community gardens and to small and large commercial farming enterprises.

The nucleus of a Leadership Council has actually been formed by the Kauai Food Industry Forum, a community action group comprised of a wide spectrum of Kauai's farming, gardening, food service and several other related organizations. This leadership is the Planning and Coordinating Group of the Forum and it has taken on the task of creating a comprehensive plan to increase food self-sufficiency on the island. (See Appendix for details.)

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Planning

A Planning Team will be needed to support the Leadership Council. This Team must understand the essential components of a prosperous food industry from: land acquisition, to manpower recruitment and training, to acquisition of equipment and supplies, to planting, cultivating, harvesting, marketing and quality control. The Team must assist in planning for a broad spectrum of development that supports existing farmers, the home gardeners as well as the chicken farmers, and all others who contribute to the increase of

food production as they are all an essential part of the new kind of a locally based food industry we need.

The Kauai Food Industry Forum is seeking funding to address the need for planning and has selected Ward Research, a Honolulu-based firm, to conduct a survey of the current strengths of Kauai's food production operations. This data, once obtained, will serve as the foundation for planning the further growth of the island's food industry.

Financing

The Fiscal Branch of the industry needs to develop viable plans and methods for acquiring grants and loans, managing income from the sale of products and controlling expenses in concert with the growth curve of the entire enterprise. It must also work with

neighborhood groups and non-profit agencies on community fund raising programs that will not only support the movement with dollars but also with understanding and good will.

Education and Training

The Educational Branch will be responsible for recruiting and training the personnel needed for all phases of the industry. It must design and provide basic instruction in effective practices of farming, team building, marketing, product research and public relations, all in programs that are relevant to the needs and conditions of the island. It must also provide on-going technical support to the personnel involved in production to insure high quality output, plus training in management and supervision to insure effective and efficient operations.

Administration, Management and Coordination

Key personnel are needed to direct the day-to-day functions of the industry and to insure that it is meeting its goals in an efficient and timely manner. This branch of the industry must simultaneously coordinate with all other branches to produce smooth and orderly operations. Good administration serves the highest purposes of the organization, good management keeps it running productively and good coordination insures that all parts function in harmony. Achieving this level of operations requires good people and good communication. Training is essential. The Kauai Food Industry Forum currently has a grant proposal pending with one of Hawaii's foundations, which if funded will begin the process of building this component of the industry.

Manpower & Labor

Recruitment, training, placement and on-going supervision of the workforce is an essential element for the success of the industry. This calls for the continuous involvement of the key branches of the industry: leadership, administration, management and education. America's most successful industries provide for such on-going coordination as an essential function of their daily activities.

The development of successful farming enterprises on the island will be heavily dependent upon manpower. The Hawaii Department of Labor and Industrial Relations in 1998 predicted that the 1,000 existing agriculture jobs on Kauai at that time would need to increase to 2,200 or even 3,100 by the year 2020. That prediction could not have taken into account the dramatic shift that was to occur in 2007-08 requiring a re-examination of our local food production capability.

Although accurate predictions regarding the current and future levels of farm labor that will be needed to feed Kauai are still problematic, some preliminary estimates can be offered. Using the commonly employed estimate that a ¼ acre is needed to feed a family of four, and then determining the total acres needed to feed a resident population of 65,000, it would require 16,250 acres (65,000 acres / by a family of 4). However, the next step in the equation is far more complicated as it requires an estimate of how many farmers will be needed to productively manage the 16,250 acres. Will these farmers all be paid workers, will some be home owners growing on their land, will some be volunteers participating in community gardens, etc., etc...?

A simplistic answer would be: four workers managing one acre of land (as is sometimes required for intensive organic vegetable growing) would require 65,000 workers, or approximately the entire resident population of the island. Realistically, however, with diversified agriculture and proper equipment, a much smaller workforce would be required. The predictions of several economic analysts (see Appendix) suggest that to provide an adequate food supply will require a dramatic change in our current lifestyle and a return to earlier methods of food production that are locally based and more agrarian in nature.

This change, they predict, will result in:

- many more home-based gardens
- an increase in community-based cooperative gardens operated by volunteers and community groups (churches, social organizations, businesses)
- the rise of community supported agriculture in

- the form of small farms that produce for a specific clientele on a contracted basis
- the rise of product-specific ventures (fish farms, goat farms, fruit orchards, herb gardens, community kitchens that foster value-added product development, etc.)
 - consumer owned markets and food coops that contract with growers for specific quantities of food products and supplement this with import “hard-to-get items” in bulk quantity for their membership
 - a rise in entrepreneurship and creative enterprises that seek to satisfy the new demand

Unfortunately, an adequate supply of trained manpower for these kinds of new ventures is not yet available. Yet as the industry reorganizes and begins to grow on Kauai, and as training programs are provided that can enrich the supply of farmers and food industry entrepreneurs, this condition will gradually change.

The current movement to encourage more home gardening and community gardens is adding to the labor supply. It is also encouraging a broad spectrum of the island’s residents to engage in the process of learning to grow their food. As this movement expands, it will contribute to a shift in public opinion regarding the value of food and stimulate the growth of local food production, thereby adding more manpower to food production in all kinds of farms, both large and small.

Although the kinds of enterprises suggested above are mostly labor intensive and the labor needed is currently in short supply, the good news is that such developments will ultimately enlist the labor needed and thus help to diversify our island’s economy by keeping more of the profits on-island that are now going to mainland and foreign producers and to ocean and air shipping companies.

Facilities and Land

Land is obviously a key factor in food production. Despite the common belief that land on Kauai is abundant, it is necessary to understand that suitable farmland is actually limited on this small island and much of it is no longer available for agricultural purposes as it has been consumed for residential and commercial development. More than 3,000 acres of Kaua’i agricultural land has been developed for housing since 2001. According to the U.S. Department of Agriculture, the amount of Kaua’i land being farmed dropped 23 percent from 1997 to 2002. The market value of production from those farms dropped 40 percent in that time. Of the estimated 565 farms on Kaua’i in 2002, more than 100 had fewer than 50 acres and another 300-plus had fewer than 10 acres, the USDA says.

A 2005 State law requires counties like Kauai to designate the highest-quality agricultural lands as “important” and to give landowners incentives to keep that land in farming. However, the increase in development has led to map inaccuracies as related to present day land use conditions. Local political efforts to stop commercial development on

As noted earlier (see “Manpower and Labor”) an estimated total of only 16,250 acres would supply food for the resident population.

Land is clearly abundant on Kauai and the pressure of change along with the new demands it will call forth will require a new kind of thinking about land use. The real issue will probably not be land but rather the manpower to grow the food we will need.

Equipment

Prudent acquisition and placement of the equipment will be needed to provide support to the production and processing functions of the industry on the island can enhance operations and build profits. This is a function of management and coordination.

Supplies

Ordering, storage, distribution and utilization of supplies are also a function of management. It must be coordinated with the financial branch and also with production needs.

Marketing and Sales

Ultimately the success and profitability of the industry depends upon effective marketing and sales to the consumers. CSA programs often provide a higher profit to the farmer as they minimize the middleman. Roadside stands and farmers markets also help to increase profits to the farmer. By developing a direct relationship with a restaurant or hotel chef, the farmer can also increase his profits by growing specific products for agreed-upon prices and thus eliminating the guesswork from the marketing portion of his operation. However, as the industry begins to grow, the categories of consumers will also develop and expand.

Regulation

Both internal governance and external regulation can serve the industry. Many successful industries prosper from “in-house policing” and simultaneously from supportive government regulations. Success in this arena calls for communication and cooperation from both sides. Kauai is small enough to achieve such success.

Research & Development

Last but not least, the future growth and vitality of the new Kauai food industry will benefit from a vigorous program of research and development. In the island's semi-tropical environment, many of the challenges being faced by the growers can be mitigated by research and development activities that support the needs of producers and improve market penetration.

Summary and Conclusions

The recent trends and conditions that have created the mounting food crisis are not being mitigated on a national nor international level in a time frame that will avert major social and economic problems for the island of Kauai. However, there is a clear range of opportunities for our residents to take the actions that will reduce the impact and perhaps even create certain improvements in the ways we obtain our food and the nutritional quality that it provides. These opportunities are discussed in this report and briefly summarized below.

- A Leadership Council needs to be formed and supported by a Planning Team to design a comprehensive plan for the revitalization of the island's food industry
- An assessment is needed of the availability of suitable farm land, the distribution of such land according to neighborhood districts, and the availability and willingness of key residents to form groups that will carry forth plans to begin utilizing such lands for local food production.
- A study is needed of the kinds of training and technical assistance programs that will be required to support the growth of food production on Kauai
- Farm management and labor teams need to be formed and trained to implement farm and garden programs at the neighborhood level
- Neighborhood volunteers need to be recruited to participate in the development of these home and neighborhood gardens
- Training and assistance needs to be provided in support of the emerging neighborhood organizations to manage food coops and/or similar organizations that provide the systems for operation and distribution

The transition to a new locally-based food industry will require leadership, management, training of manpower and community support. Even though this transition is certainly necessary to address the current problems we are facing and is also in the best interest of the entire island, it is a change that will require a high degree of public information and community engagement. Funding to support the development and implementation of this plan will be essential.

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APPENDIX

References

American Community Gardening Assn
<http://www.communitygarden.org/>

Food Sovereignty Assessment Tool
Fredericksburg, VA:
First Nations Development Institute, 2004

Fifty Million Farmers
by Richard Heinberg
http://www.smallisbeautiful.org/publications/heinberg_06.html

Growing Food When The Oil Runs Out

By Peter Goodchild

Published 12 December, 2007 in “Countercurrents.org”

UN issues 'Final Wake-up call' on Population and Environment

By James Kanter

October 25, 2007
<http://www.iht.com/bin/printfriendly.php?id=8056185>

The Rise and Predictable Fall of Globalized Industrial Agriculture
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Hawai'i Island Food Summit

October 5 & 6, 2007

for details visit: <http://www.kohalacenter.org/foodmedia/>

or view the "webcast" at www.kohalacenter.org/foodmedia

"How Cuba Survived the Oil Crisis.."

www.powerofcommunity.org

The End of Food

Paul Roberts

Amazon press 2008

Statistical Sources

Kauai 2020 Projection of Population and Key Employment Sectors

Hawaii Dept of Economic Development & Tourism

2002 Census of Agriculture, Count of Kauai

Quick Facts Kauai County

US Census Bureau

Crop Yield Verification

<http://www.gardensofeden.org>

Agricultural Land Use – Island of Kauai (Includes map of land use types)

Hawaii GIS Program

Kauai Economic Development Plan 2004-2014

County of Kauai, Office of Economic Development

Kauai General Plan

<http://www.kiahuna418.com/landownership.html>

Land ownership on Kauai

<http://www.kiahuna418.com/landownership.html>

“Loss of Farm Land on Kauai”
The Honolulu Advertiser
Tuesday, April 8, 2008