

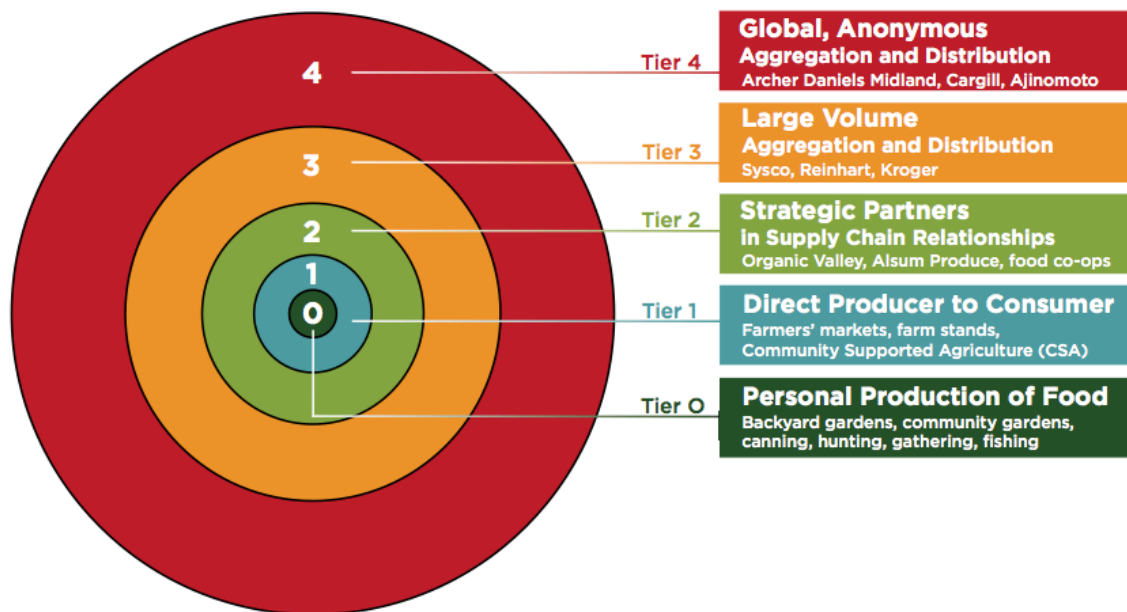
Building a More Sustainable Food System in Hawaii

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Communities across Hawaii and the American Pacific, just like communities on the US mainland, want to increase the local food supply in order to be less reliant on imports. A 2007 report by the Hawaii Department of Agriculture examining Hawaii's food security stated that despite gains in fruit and vegetable production, "Hawaii today is less capable of self-sufficiency than in the 1960s (Southchack 2007)." The Sustainability Task Force, 2008, concluded that more must be done to encourage Hawaii residents to produce food. Governor Lingle took up this banner and targeted food-self sufficiency in her 2009 agricultural initiatives (<http://hawaii.gov/gov/initiatives/2009/agriculture>).

This increasing interest in growing the local food supply has increased the demand for local food to the point where it exceeds the supply and the capacity of distribution systems. In fact, a local label on food is becoming more important to some consumers than an organic label. While Farmer Markets and Community Supported Agriculture (CSA) programs provide an opportunity to connect consumers to farmers, the bulk of a household's groceries are not purchased in these two types of markets. "Scaling Up" local food refers to the process of building the system necessary to make local food available to a wider segment of the population by getting local food into the places where most residents purchase their food. Some of the key challenges to scaling up include the development of sufficient, high quality supplies of agricultural products, and the provision of efficient packing, storage and transportation system, and the establishment of marketing agreements between producers and wholesale buyers, distributors, and brokers.

Researchers in Wisconsin have developed a framework that identifies five different levels of relationships between food producers and consumers.



The Tiers of the Food System framework was developed by Jim Bower, Blue Planet Partners; Ron Doetch, Michael Fields Agricultural Institute; and Steve Stevenson, UW-Madison Center for Integrated Agricultural Systems.

<http://www.cias.wisc.edu/wp-content/uploads/2010/09/tiers082610lowres.pdf>

The tiers are:

Tier 0. Personal Production of Food

In this tier, consumers produce their own food in backyard gardens, community gardens, by hunting, gathering, or fishing. The College of Tropical Agriculture and Human Resources (CTAHR) has the [Master Gardener Program](#), which is supplemented with garden centers such as the Pearl City Urban Garden, aimed at assisting those interested in expanding their Tier 1 activities. CTAHR also has the [SOFT program](#) that reaches out to UH student interested in non-formal training in sustainable and organic agriculture. In addition, community gardens plots are available, at least on Oahu, while school garden programs are found across the State. Statewide school garden activities are linked by a network of School Garden Coordinators from every island, which is described further in a newsletter article by Nancy Redfeather in this issue.

Tier 1. Direct Producer to Consumer

In this tier, consumers buy directly from producers at roadside stands, pick-your-own, farmers' markets and CSAs. Many of the producers in this tier support the values associated with sustainability and communicate this to consumers, who likely share similar values. These shared values combined with the fact the seller and the buyer have equal power in a highly transparent relationship allows the producers to have more control over the prices they charge.



[O'ahu Fresh](#) delivers bags of locally grown produce to homes and offices weekly.

In order to scale up in Tier 1, producers could form a hui that engages in a CSA and/or internet sales. Given the growth in Farmers Markets, CSAs and internet marketing of agricultural products in Hawaii, much progress has been made to enlarge Tier 1 activities. Many producers are targeting higher income consumers who will pay premiums for fresh produce and processed products. One of the challenges with further scaling up Tier 1 in Hawaii will be drawing in lower income residents who ordinarily do not purchase local valued added products directly from producers for whatever reason.

Tier 2. Strategic Partners

In this tier, producers form relationships with distributors or retailers that move the food to consumers. The supply chain partnerships formed in this tier generally involves sharing profits and risks with price being determined during a negotiation process. The Tier 2 businesses also generally share the values embraced by those in Tier 1. Their customers may be willing to pay more if these values are adhered to. Products are generally traceable back to the farmer, while farm identity and value are communicated through labeling, point-of-sale merchandising and/or third party certification. Scaling-up in this tier is best achieved by developing better defined relationships on a regional scale that distribute risks, responsibilities and rewards equitably across the supply chain; prices based on actual cost of production; achieving consistent quality and quantity across products and services; and the use of value-added attributes to differentiated products.

In Hawaii, the increasing use of “Buy local, It Matters” merchandising and other labels indicating local production in retail outlets demonstrates the progress in Tier 2. Many restaurants feature local agricultural products on their menus. A third party food safety certification has also been established in the State, which is facilitating strategic partnerships. Many of the larger retailers are interested in products that are food safety certified because this reduces the risk associated with purchasing from small, local growers.

Given the large number of small agricultural producers in Hawaii, getting a consistent quality and quantity across products and services is a challenge. Another issue that continues to come up is determining actual cost of production and ensuring that customers see enough value in a local product to pay the additional cost. Strategic partnerships tend to work best on a regional level, which is challenging in Hawaii due to distance between islands and the fact that the bulk of the resident population is on one island.



Tier 3. Large Volume

In this tier, businesses whose brands are widely recognized find it economical to aggregate and distribute food. Lower prices and increased efficiency is generally more important in this Tier than the values that those in Tier 1 and 2 share. While the relationship with farms is often lost, the companies in Tier 3 want positive relationships with their customers.

Tier 4. Global, Anonymous

In this tier, businesses in the supply chain are large enough to find it economical to aggregate and distribute food on a global scale. Relationships with customers are superficial. Country of Origin labeling will result in these products having a geographic identity.

Both Tier 3 and Tier 4 tend to work best on national or international scales. The larger volumes found in Tiers 3 and 4 reduce the transparency in the supply chain and create a power structure such that producers become price-takers. Businesses in Tiers 3 and 4 have infrastructure and logistics expertise that helps ensure cost-competitiveness, while at the same time, the professionals in Tier 3 and 4 understand how to deal with marketing risks associated with agricultural products such as post-harvest handling standards. Unfortunately, production information and communication are often not readily available in Tiers 3 and 4.

The Ultimate Goal of Community Food Systems

The general strategy in developing community food systems is to move small-scale direct marketing and mid-scale commodity production toward supply chain partnerships. This will move the food system away from its reliance on large scale commodity production to more value-added production that is more widely distributed. This strategy appears to be working for Hawaii, although the production of protein and starches to replace imports will remain challenging.

Ultimately, the goal of scaling up is not just to make local food available, but to ensure that local foods that are grown in a sustainable way are available to all consumers. Some consumers may not be interested in healthy local food, while others may find local food beyond their economic means. Neither food dependency nor food self-sufficiency are the desirable goal. Food systems are interdependent at the local, regional and global levels. Sustainability requires that these systems to be fair and equitable so that those in agriculture get a fair wage, all consumers can afford healthy food, and the value chain from producers to consumers is efficient and transparent.

For case study examples of the concepts outlined above, please refer to the following sources:

Scaling Up: Meeting the Demand for Local Food

<http://www.cias.wisc.edu/farm-to-fork/scaling-up-meeting-teh-demand-for-local-food/>

Mid-scale Food Value Chains

<http://www.cias.wisc.edu/featured/mid-scale-food-value-chains-case-study-red-tomato/>

References

The Tiers of the Food System framework was developed by Jim Bower, Blue Planet Partners; Ron Doetch, Michael Fields Agricultural Institute; and Steve Stevenson, UW-Madison Center for Integrated Agricultural Systems.

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