

CHOICES



The Magazine of Food, Farm and Resource Issues

1st Quarter 2010 | 25(1)

IS LOCAL ENOUGH? SOME ARGUMENTS FOR REGIONAL FOOD SYSTEMS

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The focus on local food systems has been quite strong over the last decade, and the phenomenon has appropriately been given a lot of attention by consumers, researchers, and food supply chain participants. As a complement to the other papers in this issue, we devote our attention here to the concept of regional food systems. While many food system advocates use—and think of—the concepts as synonymous, we argue that such a merger obscures critical distinctions and fails to provide a meaningful framework upon which to build a more economically viable and environmentally sustainable food system. We suggest that a regional food system includes “local” but operates in a larger, more comprehensive scale. Many of our arguments and assumptions have not been tested yet, but offer fruitful opportunities for analysis, ways to work together, and a useful research agenda.

We undertake this exploration in the context of regionalism (Wallis 2002), the framework for economic, policy, and program development that responds to regional differences and needs, and encourages regional approaches and solutions (Hance, Ruhf, and Hunt 2006). Regions can be described in many ways; their boundaries are fluid, not rigid. A region may be defined by political or administrative boundaries—for example, counties, or the Appalachian Regional Commission; watersheds or bioregions—for example, Chesapeake Bay watershed; or culture—Cape Cod, the Big Apple. Regions may be composed of sub-regions. They overlap. They “nest” in larger regions. For example, the Berkshires and Cape Cod are regions of Massachusetts, which is part of New England which is part of the Northeast Region. By contrast, local most often is defined as a radius of 50–100 miles or regions within a state. For example, the US Department of Agriculture uses a 400-mile radius for certain Federal rural development loan programs. Local can also carry various connotations for consumers that are not always valid, such as direct-marketed, sustainable, and fresh.

Regionalism is particularly relevant to food systems. Unlike in the manufacturing and services sectors, which are less dependent on the natural capital and resource bases of particular regions, agri-food systems are characterized by “the geographic fixity of primary factors in production, including suitable farmland, regional climate conditions, natural resource base, and proximity to primary upstream industry” (Canning and Tsigas, 2000). As we argue below, topography, water availability, land and other inputs, farm scale, crop options, and market proximity are operable at the regional level.

An ideal regional food system describes a system in which as much food as possible to meet the population’s food needs is produced, processed, distributed, and purchased at multiple levels and scales within the region, resulting in maximum resilience, minimum importation, and significant economic and social return to all stakeholders in the region. This is known as “self-reliance”—as opposed to “self-sufficiency” wherein everything eaten is supplied within the target area.

We see that local is a necessary but not sufficient component of a regional food system. Regional is larger geographically and in terms of functions—volume/supply, food needs, variety, supply chains, markets, land use, and policy. A regional food system includes multiple “locals” within a state, and those that cross state boundaries. Regional food systems operate in relation to other regions as well as to the national and global food systems.

Regional Food System Dimensions

In this paper, we use “regional” to refer to multi-state regions although we recognize at different times regions will be defined differently. We see four crucial dimensions to the regional food system framework—food supply, natural resource sustainability, economic development, and diversity.

The first critical dimension is food needs and supply. As mentioned earlier, self-reliance is reached by supplying as much of the foods in a region that is physically possible without degrading the resource base. It is a way of looking at the food needs, or demands, of the population along with the food supply. It is fairly easy to calculate dietary needs; we can make it more practical and complex by modeling a variety of different types of diets—for example, vegetarian—and including cultural preferences. The next step is calculating the number of acres of cropland, pasture, and fresh or saltwater required to produce the diet under present circumstances.

In 2007 Peters, Wilkins, and Fick reported that the New York land base could support about 20% of the state’s population with a diet containing one-third less meat than at present (Peter, Wilkins, and Fick 2007). Using some of the same assumptions, the Greater Philadelphia 100-mile “food shed” contains only 60% of the crop and pasture land needed to feed the population (Delaware Valley Regional Planning Commission 2010). These are useful parameters to help people understand the limits or capacity of an area to meet the real food needs of a population now and in the future. A related notion is food security, the original meaning of which is a country’s ability to produce enough food—or the staple cereal foods—to support its population. At least for the foreseeable future regional food security will come from local, regional, national, and global levels. Some local areas may be able to produce a larger volume of some food, but even with more extensive farming and urban agriculture, it is unlikely that they can produce the volume to make them self-reliant for their dietary needs. One of the obvious ways to expand volume and variety is to expand the geographic area from which food is sourced in a sustainable way. Examples of this type of thinking include the Good to Grow project in the Upper Mississippi River Valley (Fykse 2008) in which geographers have mapped the key areas in which crops are produced and processed across four states, and the Eastern Seaboard project (USDA, ARS, 2009) that is mapping and calculating where local production can meet current and projected produce demand or not, with an eye to seasonally distributed production.

The second critical dimension of a regional food system is the sustainability of land, energy, water, and other resources. It does not make sense to develop a new, alternative food system at any scale without requiring that food be produced by sustainable practices, because without them the ability to produce food in the future is jeopardized. We start with the availability and quality of land upon which the food supply is based. By definition, a region will have a larger land base than a local area to go toward meeting food production needs. But that land base has to be kept for—and in—production. And that requires a regional approach. Local land use decisions are important for getting community buy-in and identifying priority areas for preservation and agriculture economic development. But most local land use decisions are made in a vacuum, and without any quantitative analyses of the area’s food or water demand and supply. In fact, local control that favors development can undermine an area’s food security. We believe that a region is the most useful unit of analysis for mapping land use and growth patterns and trends, and for promoting Smart Growth initiatives. Furthermore, a regional approach could best address multi-community and multi-state priority areas or bioregions, and develop comprehensive land use and economic development plans.

Decreased energy use and transportation time are being used as key arguments for local food. However, this argument can be challenged. Pirog and colleagues (Pirog, Van Pelt, Enshayan, and Cook 2001) looked at three food sources—national or global conventional, Iowa-based regional, and Iowa-based local. They showed that the local system used more energy and emitted more carbon dioxide than the regional system because the trucks were smaller and required more trips. Important efficiencies may be gained in, for example, aggregating sufficient volumes of supply, and back-hauling. Organic Valley’s regional “milk pools” were developed so that milk was not hauled from the Northeast and other regions to Wisconsin.

In fact, energy, land, water and marine resource management should, and sometimes do, take place at regional levels. From production capacity to water pollution to fisheries, resource use and protection are not only local issues. Good examples exist of regional, often multi-state, resource management initiatives: the Northeast Greenhouse Gas Initiative (<http://www.rggi.org/states>), the Chesapeake Bay Program (<http://www.chesapeakebay.net>), the Great Lakes Commission (<http://www.glc.org>), and multi-state regional planning commissions.

A third dimension is economic development. A hallmark of a regionally focused food system is that economic returns stay within the region. Making that happen requires addressing markets, new business models, branding, infrastructure, financing, and trade. A regional food system is comprised of multiple marketing options for farms of all sizes that include local markets as well as broader regional supply chains, thereby providing farmers with more market opportunities that play out through various supply chain structures. In emphasizing the importance of new supply chain approaches to rural development, Marsden and his colleagues tout the benefits of 'short food supply chains' that 'short circuit' long and complex industrial chains (Marsden, Banks, and Bristow 2000). Short food supply chains accomplish this not necessarily by lessening the number of times the food is handled or the distance it travels but by embedding information in the product via its label. They identify three main types of alternative chains:

1. *Face-to-face*: personal interactions such as farmers' markets or farm stands;
2. *Spatial proximity*: consumers are made aware of local or regional origin at point of sale such as through signs in supermarkets; and
3. *Spatially extended*: value about the product and place of production is transmitted to consumers outside of the region, for example, Vidalia onions.

In a regional food system, consumers would not always "Know [Their] Farmer" face-to-face, as they purchase products that they recognize as "spatially proximate." In this scenario, regional identity has value in the food marketplace to consumers and producers.

A regional food system is based in "place"—as is a local food system—but the "place" is conceived more broadly. Products may be differentiated, and receive a premium, according to place-based branding that plays to the competitive advantages of a locale, as well as for specific product attributes, for example "grass-based," IPM (Integrated Pest Management), or organic. Both add value for supply chain partners and consumers. Place-based branding can apply to various geographic areas and scales from the very local to multiple states, for example Lancaster County, or the Great Lakes.

Much emphasis has been placed on the dearth of infrastructure such as community/commercial kitchens and processing facilities to support local food initiatives. For broad economic development, regionally scaled infrastructure such as meat, fish, produce, and dairy processing, aggregation, warehousing, and manufacturing facilities, and distribution networks for larger volumes of regional products are needed. The optimal scale, location, and design of new infrastructure depend on multiple factors, which is why economic development and resource planning at the regional level are essential. One would expect more capital to be available for agri-food ventures at the regional rather than local level, and a higher total accrual of economic returns. We believe that states and economic development agencies that reach beyond parochialism to cooperate on studying, funding, siting, and managing food system-related economic development initiatives across state lines would see cost savings through, among other things, lower capital requirements, transportation-efficient locations, and full use of processing/distributing capacity.

Regional food economies also include the notion of trade—the importing and exporting of products within and across regions. Trade is critical for many reasons including utilizing the production advantages of certain states—for example milk production in Vermont that far exceeds the population's need. As pointed out earlier, no area will be self-sufficient, so trade, including national and global to some extent, must bring those necessary products into a region.

Diversity is the last dimension and a cornerstone of a regional food system. In a larger region a wider variety of foods can be produced and processed, especially if the region crosses latitudes. Many regions have a diverse population base that seeks access to sufficient and culturally appropriate foods. Because the production acreage to draw from is more extensive and the types of farms, soils, climates, and crops far more diverse than in the immediate community, the likelihood of meeting this goal is increased at the regional level.

Diversity is important in another way: it brings resilience. Diversity provides strength to food systems because it preserves options which allow for flexibility and resiliency—the ability to persist through continuous development in the face of change. Climate change has already begun to test the ability of communities that had not previously faced this issue to partition water supplies. Challenges of this magnitude must be addressed at least at regional levels.

Scale also is critical to resiliency. A resilient food system requires components of various scales, much like various sized stones produce a firm roadbed. Connectivity is another necessary facet, requiring that various scales interact and "talk to each other" (Newman and Dale 2009). Institutional and social capacity must exist at all scales within the food system to allow self-organization and adaptation. Thinking regionally catalyzes more resources, and also enables resource efficiency, for example, in the case of financially strapped land grant universities sharing agricultural specialists or laboratories.

These four dimensions—food supply, natural resource sustainability, economic development, and diversity—are key elements of a regional food system model. Underpinning these descriptors is a set of values that include stewardship, equity, conservation, and opportunity. For example, economic development should strive to support new business relationships based on fairness and transparency throughout the supply chain—models referred to as value chains or values-based food supply chains. Trade should exemplify the principles of domestic fair trade, addressing the treatment of all workers in the food system.

We recognize that food system transactions happen at multiple levels and scales, but we think that "regionalizing" the food system—*emphasizing and focusing on regions*—may be the optimal model to meet the goals of a sustainable, secure, and resilient food system. In our framework, local and regional are different. That difference enables both greater critical thinking about food systems and greater opportunity to develop truly sustainable ones. The concept of food systems is in an exciting and creative phase. Along with that creativity comes challenges for producers, consumers, supply chain participants, researchers, planners, and policymakers. For example, "buy local" resonates with many consumers, providing lucrative markets for certain items, valuable relationships between producers and customers, and some economic reward to certain communities. The downside at this time is that regionally produced foods not identified as "local" are not sufficiently recognized or desired in the marketplace. Exceptions include successful regional enterprises like Country Natural Beef and Shepherd's Grain. So if the berry is not "local" consumers are neither encouraged nor motivated to distinguish or care about where it came from—a neighboring community, state, or country. On the plus side, the terms "regional" and "local and regional" are being used more frequently. Consider USDA Secretary Vilsack's FY 2011 Budget Summary and Annual Performance Plan's strategic goal to "[develop] local and regional food systems" (USDA 2010), and New England's agriculture commissioners meeting with USDA about "how to develop regional food systems" (USDA The Boston Globe 2010 USDA meets with NE commissioners on regional food).

A regional framework offers a vision and a working template for a larger and sustainable food system. Many of our assumptions and hypotheses have not been explored or tested, and we want to avoid the "regional trap" of ascribing unfounded virtues to the approach. (See "Avoiding the Local Trap", Born and Purcell 2006). In the Northeast, a research working group has brought together scholars and researchers who are communicating, meeting, compiling a list of existing food systems research pertaining to the region, and forming a research agenda (Northeast Sustainable Agriculture Working Group). Such efforts are essential to develop a solid analytical and practical foundation for food systems work. We believe a regional food system is greater than the sum of its "locals." We also believe it offers real promise to foster fundamental change in the way we feed ourselves.

For More Information

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