Motivations and Barriers to Stakeholder Participation in Local Food Value Chains in Phoenix, Arizona

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Interest in local food is increasing across the US, motivated by concerns about the environmental costs associated with transportation, community food security, and the perception that locally produced food is fresher, healthier and more nutritious. Although the definition of ‘local’ varies - with some defining it in terms of distance from home and others in terms of being produced within the state or metropolitan boundary - the growing demand for local food presents significant opportunities to revitalise urban agriculture and restructure local food value chains. This article presents results of a survey about the perceptions of stakeholders on motivations and barriers to the development of a local food system in Phoenix, Arizona.

Maricopa County in Arizona, which includes the city of Phoenix and the surrounding suburban areas, is currently the fourth most populous county in the country and among the fastest growing. Rapid urbanisation has put a great deal of pressure on agriculture, which has historically been very important in the county. According to the 2007 agricultural census, total farmland declined by 35 per cent from 1997-2007 and accounted for 11 per cent of total land in the county in 2007. The Groundwater Management Act passed in 1980, following concerns about groundwater overdraft in this arid region, prohibits the establishment of new irrigated lands in the county. This has implied that as farmland in the urban core gets out-competed, no new farms can be established in the outlying desert regions. This has led to a very different spatial distribution of farmland in the county compared to other metropolitan regions where expanding urbanisation pushes farms to the periphery.

While rapid urbanisation has led to a sharp decline in farmland it has also been associated with higher demand for locally grown produce. A survey of Arizona consumers in 1997 found that while a majority of Arizona consumers preferred state grown products over products from other regions, residents of Phoenix had much stronger preferences; they were found to be 25 per cent more likely to prefer an Arizona grown product than other residents from the state (Patterson et al., 1999). Despite this growing interest in local food, there is a disconnect between expressed interest and actual participation in the local food system. Vegetable farms and orchards are well suited for local food chains, but accounted for only 12 per cent of the agricultural land in the county in 2002, with alfalfa and cotton being the major crops. A survey conducted in 2000 found that farmers’ markets that sell local produce in the Rocky Mountain region (in which Arizona lies) struggled in comparison to other parts of the country, with average sales per market being the second lowest (USD 145,000 per year) despite a 74 per cent increase in number of customers from 1996 to 2000 (AMS, 2002). Restaurants, school cafeterias, and grocery stores that sell local foods are increasing in number, but are still few and far between.

Maintaining the viability of the local food system requires an understanding of the stakeholders involved, the forces that motivate them, and the obstacles they face. This study, performed by researchers at Arizona State University (ASU), seeks to unravel what is lacking in the current design of local food system in order to identify key issues for research and future projects.

Engaging stakeholders
The study is based on interviews with 30 food system stakeholders operating in Maricopa County regarding their values, motivations and barriers for participation, and recommendations for improving local food value chains. The interviews...
were carried out from April to June 2009 and included the following stakeholder groups: six representatives of consumer/community organisations, nine producers, ten foodservice representatives (grocers, restaurants, institutional foodservice providers, etc.), and five distributors (produce distributors, farmers’ markets and food banks). The producers interviewed were all commercial farmers. They included several small vegetable farms and a dairy within the urban core of Phoenix, large vegetable and animal product producers on the outskirts, and two cattle ranches serving the urban market from other parts of Arizona. The interview protocol was developed based on criteria compiled from a literature review. Through multiple readings of the interview transcriptions, frequently occurring themes were identified as the prominent perceptions of local food.

Interviewees’ definitions of ‘local food’ ranged from a limited radius to the entire county or the entire state. The most frequently cited response (around 50 per cent) was that ‘local’ should encompass the entire state of Arizona. Stakeholders emphasised the importance of drawing from a wide geographical area due to the harsh desert summers in Maricopa County. The Arizona Grown’ campaign, launched in 1993, and aimed at appealing to the parochial interests of state citizens to support the state economy may have contributed to the development of this perception of local food. In the absence of any other widely held definition to differentiate ‘local’, we have adopted the stakeholders’ definition ‘grown in Arizona’ as the definition of local food for this study.

**Barriers to local food value chains**

The respondents highlighted several obstacles to participating in the local food system. The six most frequently mentioned barriers were: desert climate, lack of information, inconvenience, food safety issues, cost and urban development pressure. However, each stakeholder group had different opinions as to which were the ‘major’ barriers (see Table 1).

Phoenix’s desert climate constrains the volume and variety of food available, thus leading to problems of scale in supporting a viable local food system. The arid environment also generates concerns about impacts of agriculture on the region’s limited water resources. Consumers were divided as to whether or not buying locally was environmentally responsible. However, producers emphasised the fact that they use water judiciously – indicating conflicting perspectives regarding the environmental impacts of farming.

For consumers, lack of knowledge about where to purchase local food was an obstacle. One distributor described this in part as a problem with labelling: “there’s so much local produce in Arizona…[but] people don’t know…because it gets packed up and is marketed under different names.” Many consumers noted that few local foods are in grocery stores, and foodservice providers described frustration with the inability to make bulk purchases of local foods ‘at the click of a button’. Producers and grocers explained that this was due to an absence of processing facilities for fruits and vegetables in the county.

Food safety regulations were frequently mentioned as obstacles by distributors, foodservice providers and producers. This is due in part to recent food contamination ‘scare’ legislation that requires small-scale farms to obtain third-party audits if they wish to do business in mainstream markets. Small-scale vegetable producers reported the auditing and certification process to be very costly and burdensome. Grocers and distributors, however, emphasised that they are accountable to their customers, and therefore must require farmers to provide certification.

While regulations create barriers to entry into mainstream value chains, lack of regulation can prove problematic as well. Some producers expressed frustration with farmers’ markets that allow ‘box-farming’ (a term used to describe vendors who do not actually grow the produce they sell, but instead buy it from another farmer or produce warehouse, and re-sell it at the market). Some producers have reported to become so frustrated with ‘box-farming’ that they choose to leave the farmers’ market altogether.

Stakeholders had widely varying opinions regarding the economic value of participating in local food value chains. Small-scale producers explained that local value chains such as farmers’ markets and restaurant sales provided them with a viable alternative to larger markets where “the ‘big boys’ will just come in and undercut the price so badly they’ll take us out.” However, almost half of the producers expressed concerns about low profits, particularly given development pressure, and therefore high land prices for land associated with water rights in the county.

Similarly, consumers indicated that there was little economic incentive for them to buy local food, and that prices deterred lower-income consumers – making local food an exclusively ‘yuppie’ trend.

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**Table 1: Most frequently cited barriers (% of the stakeholder group that noted the barrier)**

<table>
<thead>
<tr>
<th>Consumers</th>
<th>Producers</th>
<th>Foodservice Providers</th>
<th>Distributors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Gaps (67%)</td>
<td>Food Safety (89%)</td>
<td>Climate (100%)</td>
<td>Volume (80%)</td>
</tr>
<tr>
<td>Climate (50%)</td>
<td>Inconvenience (78%)</td>
<td>Inconvenience (70%)</td>
<td>Inconvenience (80%)</td>
</tr>
<tr>
<td>Water Use (50%)</td>
<td>Information Gaps (67%)</td>
<td>Inconsistency (70%)</td>
<td>Development Pressure (60%)</td>
</tr>
<tr>
<td>Inconvenience (50%)</td>
<td>Lack of Profit (67%)</td>
<td>Cost (70%)</td>
<td>Urban-Ag Conflict (60%)</td>
</tr>
<tr>
<td>Inconsistency (50%)</td>
<td>Regulations (56%)</td>
<td>Heat Issues (60%)</td>
<td>Information Gaps (60%)</td>
</tr>
<tr>
<td>Cost (50%)</td>
<td>Marketing (56%)</td>
<td>Volume (60%)</td>
<td>Inconsistency (60%)</td>
</tr>
<tr>
<td>Quality (50%)</td>
<td></td>
<td>Quality (50%)</td>
<td>Food Safety (60%)</td>
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<td></td>
<td></td>
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<td>Variety (60%)</td>
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Finding strategies to increase profitability for local producers and affordability for consumers continues to be a major challenge for many local food systems throughout the US.

Motivations for participation
In spite of the barriers, there was overwhelming support for locally sourced food. Stakeholders described numerous social, economic and ethical reasons for participating in local food chains. The five major reasons that emerged included: better quality of products, economic benefits, supporting the local community, freshness, and knowing where one's food came from (see Table 2). Several important distinctions emerged between the stakeholder groups. Consumers were motivated by a desire to support the local community and to know where their food came from. They associated local foods with better flavour and less fossil fuel consumption. Many found that alternative value chains, such as farmers markets, met these desires better than mainstream markets. Distributors also described cost savings associated with shorter transport distances. Producers and foodservice providers were driven by economic benefits associated with branding food as ‘local’.

Recommendations & ongoing work
The diversity of stakeholder perceptions regarding barriers and motivations for participation in local food market chain underscores the need first of all for increased dialogue and building of trust to facilitate collaboration among participants so that they can jointly explore and exploit emerging market opportunities. To this end, a Local Food Working Group was set up at Arizona State University in 2009 to build partnerships between university researchers and various stakeholders and community organisations. This group has begun to work on a number of projects to increase awareness about local food. In particular the group is using participatory approaches to develop a map and directory of local food outlets.

To address the problem of ensuring a viable scale for operation of the local food system, several stakeholders suggested establishing cooperatives for the consolidation, processing, food safety compliance, packaging, branding and distribution of local products. Consumers could buy directly from these outlets, and the outlets would also help small-scale farmers cater to the needs of large-scale grocers and restaurants. These cooperative ventures could also help defray some of the costs of training regarding marketing, food safety compliance, insurance, and organic certification for producers.

The need for local labelling and brand promotion was also widely expressed. In order to be effective, brand promotion programmes need to be well targeted and emphasise product characteristics that are unique to the local product in order to build value. Public-private partnerships could be explored to leverage greater funding and to tap on the strategic complementarities between the different public and private entities in the value chain.

Another challenge is to ensure that local foods are accessible to low income and minority groups. Farmers’ markets in the county are increasingly participating in the Farmers’ Market Nutrition Program, which allows low-income women, children or seniors already participating in state supported supplemental nutrition program to receive additional food coupons for use at farmers’ markets.

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Notes

References