Assessment of Access to Local Food:
Michigan Region 3 RPI

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Executive Summary

This feasibility study was initiated by NEMCOG as part of the Region 3 Regional Prosperity Initiative Agriculture Cluster component. Connemara Consulting was approached in the fall of 2014 to explore the feasibility of establishing a food hub in NE Lower Michigan. As the market for locally grown food continues to grow, farmers, community-based organizations, and others are looking for ways to help smaller farms access larger, conventional market outlets and increase the distribution of locally grown food. Food hubs – food aggregation and distribution facilities – have emerged as a key strategy. Connemara Consulting quickly suggested that a broader approach to improving local food in the region would be more productive and initiated an assessment of How to Improve Access to Local Food in NE Lower Michigan. This approach included the concept of a Food Hub, but also explored several other options that might have more probability than just a Food Hub as a means to improve access to food in NE Lower Michigan.

This Feasibility Study is built upon ongoing work of NEMCOG to create a vibrant, thriving and sustainable economy in Northeast Michigan with a specific focus on the agriculture sector. In their Regional Vision Statement, Northeast Michigan will have a vibrant, thriving, sustainable economy based on collaborations between public, private entities and organizations leading to the creation of an entrepreneurial support system that provides technical assistance to the business community to retain and create new permanent higher-wage employment opportunities.

With the average age of an American farmer at 58 years old, and less than 2% of our population involved in farming, our country needs a new generation of farmers to maintain and/or grow the amount of local food available to local populations. In addition, the health statistics show that areas with low income also have higher rates of food related illnesses such as obesity, diabetes and heart disease.

Visits were made either directly or via phone conversations with members of food hubs around the state and in other states – Cherry Capital Foods in Traverse City, Washtenaw Food Hub in Washtenaw County, U.P. Food Exchange in Marquette, and the Northeast Wisconsin Food Hub in NE Wisconsin. These contacts were helpful through sharing of development issues, business models, how they work, and reinforcing the idea that not all food hubs are alike.

The multi-tiered model of Local Food System Development that was developed during the course of this study shows the progression of possible activities that communities in

NE Lower could initiate to improve access to local foods in their communities. This model and chart (found in Recommendations later in the report) is fluid and not necessarily linear. The model also allows for mapping of current producers and where they fit on the model, thus encouraging discussion of how to use the mapping to move upwards in the model. Commonalities of mapped individuals are easily recognized and then pursue the possibility of combining them to improve efficiencies in the food system using the examples in the model.

Recommendations are based upon all information gathered and framed by the Local Food Systems Development Model. They reflect both the specific industries that could benefit from support as well as specific actions to advance the local food system in general. There is an immediate need for awareness training to the buyers – grocery stores, restaurants, institutions - to start purchasing local foods. Correspondingly, there is an immediate need for training and education of producers of food. Most producers are familiar with direct sales on a small, one-to-one scale, but not at the institutional or wholesale level. Currently there are no Farm to School programs in NE Lower Michigan, nor are there any no farm-to-institutional relationships or programs.

Fundamentally, NE Lower Michigan is not ready for a food hub, based on the lack of sales and the amount of food products being produced and processed in the region. There are opportunities, however, throughout the region to improve access to local foods but training and education is needed at both the buyer and producer levels. Another component lacking, but needed, is advocacy for local food – either at the local level or regional/sub-regional level.

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Glossary

Aggregation of Food – A means of collection for agricultural products from a larger number of area farms. Delivery to customers from an aggregation point can be more efficient than point-to-point distribution from farms to customers.

Commercial Kitchen / Licensed Kitchen - Used for preparing food for sale to the public; usually must have an inspection by a local health department or some other authority before it is used for commercial purposes.

Farmer – Operator of a farm that produces grains, vegetables, fruits, animals and other processed food or fiber products.

Food Access - How people get their food and where they can access food. This can include things such as buying it from retailers such as grocery stores but also includes farmers markets, food banks, soup kitchen and growing it at home.

Food Availability - When foods are accessible or obtainable – different fresh foods are typically available at different times of year and from different sources, vs processed foods which can be available at most any time of the year.

Food Buyer – Purchasers of food include produce managers of grocery stores, food service managers of schools/hospitals, consumers, restaurants, daycares, processors of food.

Food Processor – A person or business that grows or buys raw food and preserves through canning, freezing, drying, and making a value added product from the raw product.

Food Utilization - How people use food or food ingredients– such as cooking methods, storage of food and preservation of foods.

Food Hub – A facility, either local/community or regional, that centralizes the business management structure to facilitate the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products. A food hub may provide the core services of a packing house, and/or aggregate and distribute farm-packed cases.

GAP (Good Agricultural Practices) – A voluntary audit-based program, overseen by USDA, focused on safe production, packing, handling and storing practices for fruits and vegetables to minimize risks of microbial food safety hazards.

Local – Food that is grown within a limited radius from where it is purchased. Definitions of local differ by customers and consumers, with typical ranges beginning within 50 miles and extending to 300 miles or more for regional food systems. In this report local refers to Michigan grown and specifically to the 11 counties in the Region 3 RPI.

Packing House – A facility that handles raw produce immediately after harvest and prepares it for delivery to customers. The core services of a packing house include cooling, washing, sorting, grading, packing and storage. Additional services may include harvesting, farm pickup, customer delivery, sales and marketing.

Processing – Altering fresh produce from its raw state through heat (e.g. canning), freezing, acidification (e.g. pickling) or changing its form (e.g. chopping, pureeing). At the commercial level, this often includes many food additives to improve texture, color, flavor or shelf life of the food product.

Region 3 RPI - Regional Prosperity Initiative – Made up of 11 counties and multiple public/private partnering agencies to create a vibrant, thriving, and sustainable economy in Northeast Michigan.

Shared Use Kitchen - A shared use kitchen is a facility set up for commercial food production that is available to multiple users on an assigned schedule. Usually these facilities are licensed and rented by the hour.

Seasonal Extension Structure – Semi-permanent or permanent housing for the production of fruits and vegetables during cold weather seasons. Types of structures include hoop houses, greenhouses, glasshouses and indoor warehouses. These structures and innovative heating or cooling technologies can extend the growing season of some crops to 10 or more months per year.

Introduction

Access to Local Foods

What is Access to Local Foods and why is it important? Strange as it may seem, hunger and obesity go hand in hand – they are both outcomes of food insecurity because both are results of limited access to healthy, affordable foods. The cost of food for the average household in the United States has been declining over the past 50 years and is now below 10% of disposable income, yet 15 % of households do not have enough food to eat. However, on the average, 33% of Americans are obese and suffer from the diseases and conditions associated with obesity.

The goal of most food programs is to make as much food available as possible at the lowest cost possible, with little thought about neither where the food comes from nor the freshness of the food. In fact, most food programs prefer processed foods as these are easier to store and distribute. A complete food program is usually best when designed to address the three main elements of food insecurity: Food Access; Food Availability; Food Utilization.

Food Access is considered to be defined as how people get their food. This can include things such as buying it from retailers such as grocery stores but also includes farmers markets, food banks, soup kitchen and growing it at home. *Food Availability* is more about when foods are accessible or obtainable – different foods are typically available at different times of year and from different sources. *Food Utilization* focuses on how people use food – such as cooking methods, storage of food and preservation of foods. These three issues significantly impact a community's access to local food and our study will include recommendations for all three categories of improving the quantity and quality of food in the diets of the residents of Region 3.

When considering access to local foods, most communities immediately jump to the conclusion that what is needed is a *Food Hub.* However, what a food hub should look like and how it should operate varies tremendously, as quoted by Rich Pirog (MSU CFRFS) – "If you have seen one Food Hub, you have seen ONE food hub!". There are many examples of Food Hubs throughout our state and the country as a whole and many are very successful. However this is only one approach to address the issue of improving access to local food in a community. We will examine some of the Food Hubs in our region and discuss what needs to happen in our region to support the development of a successful Food Hub in this part of the state.

The maps, in the link below, show the trend in the age–adjusted prevalence of obesity and diagnosed diabetes among US adults aged 18 years or older from 1994 through 2010. During this period, the prevalence of obesity and the prevalence of diagnosed diabetes rose in all states. In 1994, all but two states had prevalence of obesity less than 18% and no state exceeded 22%. In 2010, no state had less than 18% and all but two states exceeded 22% with Michigan at 26%+. Specifically for Michigan the maps showed that in 1994 the percentage of adults with obesity was between 14-17.9%. This went up to 18-21.9% from 1995-1998 and then from 1998-2004 Michigan reported obesity rates of 22-25.9%. In 2005, we reached a rate of 26%+ of the populated in this category. In eleven years, the rate of obesity in Michigan went up from the 14-17.9% category to 26%+ and it continues to rise, especially in the poorer, underserved areas of the state. (http://www.cdc.gov/diabetes/statistics). In 2013, adult obesity rate in Michigan was 31.5%, ranking 11th highest in the US. (Robert Wood Johnson Foundation, 2014). All of these statistics indicate that the physical health of our region would be improved by increasing the access, availability and utilization of fresh, local foods.

Population & Demographics

Area is Region 3 RPI (Regional Prosperity Initiative) which includes 11 counties: Cheboygan, Presque Isle, Otsego, Montmorency, Alpena, Crawford, Oscoda, Alcona, Roscommon, Ogemaw, and Iosco. As of 2012, the Northeast Prosperity Region (Region 3) had an estimated population of 205,830 representing 2.1 percent of the statewide population. In 2014, RPI Region 3 population was 178,746, a 13% decline.

Between 2000 and 2012, the Region's population has fallen by 9,703 residents or 4.5 percent. Over the same period, Michigan's population has remained relatively flat, inching lower by 55,500 residents or 0.6 percent. A combination of migration and natural population decline (deaths exceeding births) contributed to the losses.

The age distribution of Region 3 residents is considerably older than the statewide average. In 2012, nearly 42 percent of residents were at or nearing retirement age (55 or older), while 18.8 percent were in the younger worker cohorts, including those 15 to 24 and those 25 to 34. With over 40 percent of residents aged 55 or older, there are potential workforce and economic implications. From possible talent shortages resulting from retirements, to increased demand for health services, demographics are sure to influence the Regional labor market and economy. Additionally, just 14 percent of Region 3 residents hold a Bachelor's degree or higher, lower than the 25 percent statewide average.

Labor Force and Unemployment

There are 84,900 labor market participants in the Northeast Michigan Prosperity Region. Since 2009, the Region's labor force has fallen by 7,010 or 7.6 percent. Over the same period, labor force levels statewide have declined by 166,430 or 3.4 percent. Withdrawal has been due to increased retirements and enrollments as well as more discouragement among jobseekers.

The labor force in Region 3 rose by 760 from July 2012 to July 2013, steadying the steep dropping trend seen since the end of the "Great Recession". The Northeast Michigan labor force has experienced the greatest percentage reduction of all Prosperity Regions since 2009.

The Region's labor force is comprised of 74,540 employed and 10,360 unemployed. The unemployment rate measures 12.2 percent, up 1 percentage point from 2012, a testament to the difficult recovery the Region has experienced. The unemployment rate in Region 3 has remained stubbornly high in recent years.

Strategies for Improving Access to Local Food

Local Foods encompass a large range and variety of food, food products and food ingredients. Some of these for our region might include: Fresh Produce, Processed Food Products, Fresh Meats, Processed Meats, Baked Goods, Dairy Products and Frozen Foods. Aside from those individuals who grow their own food in gardens, the majority of the food in our region comes from outside of our region. This has a negative impact not only on the health of the individuals in our region but also the economic prosperity of our region.

So, what are some of the approaches being utilized in our state and similar communities across the US to improve the access to local foods in our region? Again, many jump to the conclusion that a Food Hub is necessary but in order to create a successful Food Hub, there must first be a strong Local Food System. So, the question could be refined to: What are the components of a Local Food System that might be included in the Region 3 RPI? Some to consider are: Aggregation Sites, Commercial Kitchens, Training/Education, Policy/Public Agency involvement, and Agriculture Production.

Aggregation Sites

Aggregation of foods is what is commonly thought of when considering a Food Hub - A physical location to amass locally grown or produced food for distribution to larger markets. Food hubs are unusual in that they take a values-based approach to their supplier as well as their buyers. This move from a commodity mentality allows new farmers to enter the wholesale marketplace, allows those farmers to take risks to grow their operations, and has a local economic multiplier effect, keeping the wealth in the community. They also provide small- to mid-sized producers greater access to institutional and retail markets, create new jobs along the supply chain, and—crucially—increase access to fresh healthy food for consumers through more mainstream food system outlets such as retail stores, corner stores, schools, and hospitals. Food hubs have a particularly important role to play in increasing access for underserved communities. Food hubs are focused on regionally produced product that can be fresher (with a trend toward less-processed products) and more environmentally sustainable (as travel time from farm to fork can be reduced); that preserves regional agricultural land and talent; and that provides the stronger connection to food and place that consumers increasingly demand.

A Food Hub can be an aggregation site for local food to improve marketing options, but also serve as a focal point of food processing and farmer support. Often times, farmers do not have the marketing skills, time, resources, nor the connections outside the region to effectively and efficiently market their products. Most of the farmers in this region also do not have the knowledge, skills or resources to commercially produce food produce/products.
However, aggregation and collaborative marketing of food can occur in several other types of formats. Additionally, a Food Hub can be a location or supplier of farmer or production inputs such as fertilizer, seeds, pest control and even equipment rental for the beginning farmers who cannot afford the up-front cost of their own equipment.

Truck Markets

These Truck Markets exist in many places, primarily as private businesses. These can be operated by farmers, groups of farmers or an aggregator. By collecting food products from several sources, farmers can access more difficult markets such as restaurants or institutions. A great example of this approach is Zone 7 in New Jersey (www.freshfromzone7.com) which sources local farm fresh food and delivers daily to restaurants, grocers, schools and more and source only the best, highest quality ingredients from over 120 regional farms. Initial goal was to bring the farm to the chef, supplying fresh local foods to the restaurants in way that made it easy for restaurants to purchase and use these products. This has expanded to include other institutional buyers such as schools. It is also a vehicle for keeping the customers connected with where and how to find locally prepared foods.

Farmers Markets

Farmers Markets are an excellent opportunity for farmers to reach those in their communities who want to purchase fresh, local foods and constitute the main vehicle for Region 3 farmers to have direct retail sales to consumers. Whether it is vegetables, eggs, meat, fruits, wine, beers or ciders, baked goods, honey or pickles, this is a great venue for consumers to access the local foods available. Some farmers take advantage of this opportunity to also reach consumers who want to participate in a CSA (Community Supported Agriculture) share, using the farmers market location as their CSA drop off location.

Electronic Ordering and Sales Systems

One example of an electronic ordering and sales system is Local Orbit whose tag line is: Re-linking the Food Chain. As with many of these companies, Local Orbit's services strive to create stronger, more efficient food networks that can meet the demand for the food produced closer to where people live. Their on-line tools are designed to support the people who are rebuilding local and regional supply chains. Local Orbit is the company currently working with the UP Food Alliance and will be explained in more detail in the Results section of this report.

Electronic ordering and sales systems can provide additional tools such as Budgeting, Marketing and Business Planning. It also facilitates open feedback and direct communication between the producers and the consumers which allows for on-going planning, assessment and evolution of this type of system. Additional tools can help the producer to examine all aspects of their business model and increase their sales. Many farmers are great producers but have little to no training in these areas of business management.

Commercial Kitchen / Kitchen Incubator

Another tool that is often utilized by producers who are looking to increase the value, availability and/or diversity of the products they offer is by processing their products. In order to market many of these processed products, it is required to obtain specific licenses and/or the use of a commercial kitchen. Also known as a kitchen incubator, it is a business incubator dedicated to early-stage catering, retail and wholesale food businesses. By covering the capital cost of shared kitchen facilities which are lent on a timeslot basis to those who rent the space, the kitchen incubator enables a business to develop to the stage where it can invest in its own kitchen facilities.

By mitigating start-up costs and providing a nurturing environment, business incubators have successfully graduated over 87% of their firms and kept an astounding 84% of these thriving businesses within their local communities for years after graduation (The National Business Incubation Association). The kitchen incubator, often referred to as a “shared-use commercial kitchen”, has taken a time-tested successful concept and swapped out office space for kitchens. They have opened to much acclaim, nurtured successful businesses and been embraced by their communities.

The concept relies on the fact that FDA and state regulation prohibit the sale of food that is not produced in a licensed facility. Culinary start-ups are unlikely to receive venture capital or bank financing, as profit margins are too slim and volatile for such a highly competitive market. Food products must be tested and tweaked over time before they are economically viable. Even once proven viable, the entrepreneur must navigate a complex network of regulation, packaging and distribution before running a profitable enterprise. This entrepreneur often lacks a business background and an understanding of what is involved in the start-up process. A study of individual demand for kitchen rentals reveals that start-up costs and licensing complications are the two main deterrents to opening a private kitchen. Availability and reliability are listed as the two major deterrents for aspiring entrepreneurs.

It is almost impossible for small scale producers to be able to afford the costs associated with the installation, certification, inspection and operation of a commercial kitchen on their individual farms. Commercial kitchens can be designed for many types of agricultural processing from egg washing, cheese making, baking, charcuterie and even ice cream. They can include equipment for washing, processing, packaging, labeling and storage.

Another added value to the farmer/processor is that inputs can be obtained cooperatively at lower costs and joint marketing can also be devised, all adding to the potential economic viability of small producers. In addition, a commercial kitchen can provide the venue for the training that farmers/processors require for Food Safety, GAP (Good Agricultural Practices), Serv Safe and other specific certifications.

Training/Education

Whether a local food system is at an advanced stage of development or in it’s infancy, there is an on-going need for training to the producers in order for them to make the best decisions about what to produce and when. These trainings not only should include technical topics but also need to include business and marketing topics.

And in order for a local food system to evolve and flourish, there needs to be a growing demand for the locally produced products. A vibrant local food system will have highly educated consumers which would also include Farm to School programs. It is also important for larger institutions to source their food more locally which often requires opportunities for these people who source food for the schools, hospital and other large companies to become educated about the possibilities, advantages and processes for purchasing locally grown foods.

Policy/Public Agencies

Political will is a vital component of a Local Food System. A healthy local food system will be strongly supported by committed individuals, schools, non-profit organizations as well as by public policy groups such as city councils, county planning organizations and regional institutions. Local Food Councils often play a vital role in the on-going development of a local food system as it develops from individual buying to institutional buying and even into the development of a food hub.

Health Departments and Extension Services have been critical players in the establishment and growth of many of the Local Food Systems in Northern Michigan. And the involvement of teachers and food service providers in local schools are vital to the growth of a Local Food System.

Agriculture Production

Agriculture is an asset within northeast MI from which the model for innovation and entrepreneurial development can be built upon. While unemployment is high and the economy throughout Michigan is struggling with the loss of automotive and manufacturing jobs, there is huge potential to use agricultural resources in the region to increase job opportunities, especially for young adults who have limited opportunities. (Northeast Michigan Prosperity Initiative 5 year Plan, 2014).

The USDA working definition of a Food Hub is "a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products." By actively coordinating these activities along the value chain, food hubs are providing wider access to institutional and retail markets for small to mid-sized producers, and increasing access of fresh healthy food for consumers, including underserved areas and food deserts. (http://blogs.usda.gov)

With the availability of land, natural resources and an underemployed workforce, Northeast Michigan could benefit greatly from a targeted marketing program focused on helping develop and grow new food and farming businesses to capture a portion of the fresh food market, creating numerous jobs in the local area. There are 1,474 farms in the area with an average size of 221 acres. Farmland makes up 10.4 percent of the land area overall (19.5 percent in Presque Isle and 21.2 percent in Alpena Counties), however, the majority of these farms produce hay and alfalfa, corn for silage, wheat and beans. Only 7.6 percent of the farms in Northeast Michigan produce fruit and vegetables representing only 0.1 percent of the total farm acreage.
The creation of a system of a regional food hub(s) for northeast MI would provide tremendous opportunities for increasing local food availability, jobs and income.

In order to get good, local food to where most people shop and eat (grocery stores, institutions, restaurants) businesses must aggregate products for volume, ensure that quality and packing standards are met, and provide storage and subsequent distribution to points of sale. While there is a large system for accomplishing these tasks already in existence, there is also a growing need for improvements and alternatives that offer more opportunity for local farms, support the use of sustainable production practices, expand regional food economies, and increase access to healthy and affordable food for those that currently lack such access.

Potential Impacts of Increasing Access to Local Foods

There are many reasons for a community to consider approaches to improving access to local foods. Indicators of successful interventions would include improved Food Security (Access, Availability and Utilization of Local Foods), Economic Development through jobs new revenue streams for farmers, and/or new food related businesses, better Health status of the residents of the region, & Collaboration between the stakeholders throughout the process.

Food Security

Many people don't think of rural areas as places without healthy foods, but many people live miles from the nearest store, and this makes them less likely to buy fresh, perishable foods because they buy groceries less often. In urban areas, many people buy their food from restaurants or convenience stores, where nutritious food is scarce. Even if there is a nearby grocery store, many people don't have access to reliable transportation to those stores.

Local food production reduces the economic and environmental impact of transporting food. Increasing the availability of whole foods, such as fruits and vegetables, enables people to avoid processed, unhealthy foods. Kaiser describes a few strategies that policy makers and individuals can use to improve access to local, healthy food (Kaiser 2011): CSA Programs, Farmers Markets (especially those that accept food stamps and other assistance programs), Community, School, and personal gardens (to increase the number of community gardens, policy makers should incentivize businesses to convert empty lots into gardens), as well as CFA's.

Community food assessments (CFA) are tools to define food-related issues including availability of fresh food, prices of foods, transportation to stores and more. Policy makers and local coalitions can use CFAs to better understand how to improve their community's food situation.

Economic Development

The development and expansion of local and regional food systems supports employment, incomes, and output in rural communities. (O'Hara, 2011) Direct marketing channels, such as farmers markets and electronic buying groups, stimulate rural economies because a greater percentage of the sales revenue is retained locally. Further, farmers may purchase equipment and raw materials from local suppliers. Such transactions increase labor and consequently household incomes, which result in additional local spending. Furthermore, expansion of local and regional food systems has the potential to create tens of thousands of additional jobs.

One approach to increasing local and regional food product sales is to support the development of direct marketing channels. Such support is invaluable because establishing a local-food market, such as a farmers market, can be a daunting exercise—many farmers markets are community-based and -initiated, rely on volunteer labor, have little access to capital, and rely on support from nonprofit institutions. Even a small amount of support could help a farmers market become stabilized through, say, the hiring of a market manager, the installation of an electronic benefit transfer (EBT)machine, marketing, and outreach efforts. For example, modest public funding for 100 to 500 otherwise-unsuccessful farmers markets a year could create as many as 13,500 jobs over a five-year period. While this is daunting for a region such as ours, growth of farmers markets or electronic local food buying are vital to growing the local food system. Various studies have suggested that this phenomenon could lead to thousands more jobs, even if land allocated to fruits and vegetables displaced some production of corn and soybeans. These kinds of positive economic results could also occur for other food-product sectors, such as meat and dairy, which is of great interest to the producers in Region 3.

Health

As an example of how changing food choices can affect the health of the entire community, consider the information from this University of Michigan study (U of M, 2010) that documents that middle school children who regularly eat school lunches are more likely to be overweight or obese, develop poorer eating habits and have high levels of "bad" cholesterol compared to those who bring lunches from home. Although previous studies have looked at the nutritional content of school lunches, this is the first study to assess the impact of school lunches on children's eating behaviors and overall health-a critical issue amid skyrocketing rates of childhood overweight and obesity, which can set the stage for future heart disease and premature death.

A team of U-M Cardiovascular Center researchers collected and analyzed health behavior questionnaires completed by 1,297 sixth graders at Michigan public schools over a period of almost three years. They discovered that children who consume school lunches were more likely to be overweight or obese (38.8 percent vs. 24.4 percent) than those who ate lunches brought from home. Children who ate school meals were more than twice as likely to consume fatty meats (25.8 percent vs. 11.4 percent) and sugary drinks (36 percent vs. 14.5 percent), while also eating fewer fruits and vegetables (16.3 percent vs. 91.2 percent).

Researchers also found these children had higher levels of low-density lipid cholesterol (or "bad cholesterol") than their home-fed counterparts. Students reported on what they consumed throughout the day-not just at lunchtime. "This study confirms the current and escalating national concern with children's health, and underscores the need to educate children about how to make healthy eating and lifestyle choices early on," says Elizabeth Jackson, M.D., MPH, assistant professor of internal medicine at the U-M Health System. "Although this study doesn't provide specific information on nutrient content of school lunches, it suggests there is a real opportunity to promote healthy behaviors and eating habits within the school environment. This is where kids spend a majority of their time."

Collaboration

While markets for locally and regionally produced food are growing across the United States, most of them have emerged over the last several decades through the tireless efforts of entrepreneurs, community organizers, farmers, and food and farm policy advocates. The need for organizations, institutions, schools, extension services and committed individuals is a significant and important component of improving access to local food in any community and is currently lacking in Region 3.

Demand for Local Food

There are various reasons why some consumers and retailers are purchasing locally produced food. According to a recent literature review (Martinez et al. 2010), these buyers:

- Believe local food is fresher
- Believe local food is of better quality
- Want to support local businesses and producers
- Want to know the source of the food
- Want food with greater nutritional value
- Prefer food grown through environmentally sustainable practices (e.g., organic)
- Enjoy the shopping experience
- Can obtain a greater variety of food
- Can pay lower prices

As reported by the same researchers, the largest obstacles that consumers cite for not buying local food include:

- Lack of awareness of the existence of local food markets
- Inaccessibility, inconvenience, or lack of proximity
- Higher prices (whether perceived or actual) for locally produced food
- Lack of variety of food, or too-small quantities.

Food retailers have additional challenges associated with purchasing local food, such as in ordering, delivery, and reliability. Nonetheless, for retailers and consumers alike, the obstacles cited are not associated with the desirability of the food product.

Objectives

Initially this study was under taken as a feasibility of establishing a Food Hub in Region 3. However, very soon in the process, it quickly became clear that Region 3 is not ready for a Food Hub. The primary reasons being:

1. Not enough farmers to provide the volume of product necessary to make a Food Hub economically viable
2. Very little evidence of demand for local food in Region 3 (no institutional buying of local foods and few farmers markets)
3. No farmers initially interested in undertaking the risk of growing more fruits and vegetables
4. Very little collaboration between farmers and no farmers coops.
5. Lack of public policy efforts in the region in support of a local food system

As the purpose of this study was to support the development of the Local Food System, the initial input led us to encourage NEMCOG to change the focus of this study shifted to the current topic of Improving Access to Local Food in Region 3. It was decided that while there are many steps and approaches that could be undertaken to improve the local food system, the region is not yet ready to support the development of a Food Hub.

Methodology

Data Collection

The initial step in the process was to develop written survey tools. Rob Sirrine at MSUE and Rich Pirog at MSU Center for Regional Food systems were extremely helpful in developing the survey tools so that this primary data could be collated with similar data collected around the state. With the support of MSU Extension and other members of the Regional Prosperity Initiative, we held county level meetings in each county where we explained the study. We held discussions to collect secondary data and also asked attendees to fill out the written surveys based on their status in the food system, either as a Farmers, Processors or Buyers of Local Food. Also identified additional key potential participants from each county who were not able to attend these meetings and either met them individually or talked with them over the phone or collected information via email.

Some of the additional actions to gather information for this study and share information with others in the region/state:

- Held meetings in all 11 counties in Region 3. Invited producers, buyers and processors to participate.
- Individual discussions with farmers, buyers and processers in Region 3.
- Conversations regarding a USDA slaughter facility with: MSU CFRFS Noel Bielaczyc, specialist and also with U.P. Food Alliance members, Natasha Lantz and Michelle Walk and also with James Soule in Afton, a pig producer.
- Several follow-up discussions with Amish community in Mio/Fairview area regarding joint marketing for 2016
- Met in Atlanta to discuss possible use of the old Atlanta Elementary school as a resource for production and marketing. Shared cost estimates for aqua culture operations.
- Worked with NEMCOG’s Denise Cline on developing a website for agriculture and food in Region 3.
- Attended three state wide food hub meetings.
- Coordinated with MSU CFRFS in regard to a study they are doing on food in northern MI.
- Researched and talked to several food hub models around the US including NE Wisconsin, U.P./Marquette, Washtenaw, Cherry Capital Foods, Massachusetts, and the Muskegon Food Hub Study.
- Attended the MOSES Conference in Wisconsin to meet and discuss with many levels of food hub participants, including software.

Types of Data Gathered

Primary Data was collected by administering survey tools which are included in the Appendix. Separate surveys were done for each of the three key groups: Farmers, Food Processors, and Buyers. Most surveys were completed at the county level meetings. Some were sent out and/or returned by mail.

Secondary Data gathered was comprised of discussions and observations in many situations. This was largely gathered based on discussions with farmers, processors and buyers at the county level meetings but also during state wide food hub meetings. We were fortunate to have individual meetings with many individuals engaged in building and developing food hubs in our state. These discussions helped us to fine tune our study and more deeply explore issues as they arose.

Some visioning exercises were utilized to explore what would be a regional description of what "success" looks and feels like in our region—what would we be able to achieve, and the effect it would have on our communities. To give vision to this project, we selected key individuals and in individual interview settings and asked them to envision for us their version of what a successful local food system in their regions would look like.

Some things that came from these discussions and observations:

a. Any food hub should be operated on a for-profit basis as a business that can sustain itself over time.
b. Most farmers in the area are eager for new markets but know little about how to access or develop new markets.
c. Once the topic of increasing resources and markets for local animal products was raised (in contrast to vegetable production), farmers became much more interested in engaging in the study/process.
d. Almost every group or community would like to see a food hub in 'their' town but had few concrete ideas of what the food hub would look like or how it would operate.
e. Past issues with USDA and MDA for animal slaughter and meat processing.
f. May need to split Region 3 into two or three sub-regions for implementation of activities due to perceived cultural and resource differences. Also because of distances for aggregation and distribution of local foods.

Results / Findings

RPI Region 3 has variable agricultural activity ranging from small farming operations, under 3000 acres each, in Crawford and Roscommon (just over $500,000 in combined agriculture value); to nearly 70,000 acres each, in Alpena and Ogemaw counties (nearly $50,000,000 in combined agriculture value). (MDARD, 2014) Most agricultural activity is commodity based – corn, wheat, soybeans, dairy and beef. Every county in RPI Region 3 has at least one farmers' market with Alcona having 4. Alternative farming, such as vegetable production, constitutes less than 0.5 % of agriculture land throughout the region.

During the survey process, undertaken in early 2015, very few to none of the farmers surveyed were commercially producing and selling vegetables and products outside of farmers' markets. As we talked to farmers, producers, consumers, processors, retailers, buyers and everyone else involved in this regional food system development, we heard more and more from small and mid-sized farmers about struggles to get their products to market quickly and efficiently. They would like to see more farmers markets in the region and have even elected to search out farmers markets outside of the region to optimize this marketing opportunity.

There was a sense of frustration among the farmers that there was a lack of wholesale markets in the region, such as direct wholesale markets, food hubs or other aggregators. Our observation was that most farmers in the area are not producing a large enough volume for a wholesale market and that they also have a lack of knowledge or skills about the steps required in processing, storage and packaging required for wholesale markets. There is little capacity among the farmer networks for wholesale production and marketing. Most farmers are more comfortable with farmers markets or direct marketing to local individuals. There is little to no support for trainings or education directed at small or medium scale vegetable production or value added opportunities in Region 3. Areas identified that need capacity building are: marketing, production techniques, policy compliance, GAP training, post-harvest handling, scheduling and planning. They also had no concrete ideas as to how to create those markets.

Most county level surveys and discussions resulted in strong interest in animal based marketing (meat, eggs, fiber), more so than vegetables. One common barrier to improving animal based marketing is the lack of a USDA slaughter facility anywhere in northern Michigan or the U.P. There was overwhelming interest and support for a USDA facility in the north, as most producers indicated an interest in raising more livestock if a local processing and/or storage facility were available. A feasibility study done by the MSU Product Center in 2005 found a USDA facility to be not feasible overall, but their findings did suggest a USDA slaughter facility would be feasible but not in conjunction with a feedlot. There is little interest in developing a feed lot in northern Michigan or the U.P. This is one area that has strong support and needs to be pursued.

Commercial purchasers of food (grocery stores, schools, institutions, etc.) expressed interest in purchasing local foods, but also expressed concern regarding pricing, quality, consistency, and availability. There are some current, informal buy/sell relationships, but they are based on one-on-one relationships such as the Presque Isle Farm near Posen, MI, sells micro greens directly to Neman's Grocery in Alpena.

In exploring the research of other existing Food Hubs in the country, many of them rely upon grants or other outside funding sources for either their start-up costs, part of their operating costs, or both. The number of years to reach a break-even point varies from 2 to 11 years. The amount of annual gross sales required to reach an economic break-even point ranges from $500,000 to several million dollars. (Local Food Research Center, 2012)

There is a definite absence of support or advocacy for local food throughout the region. There are no food councils or alliances in Region 3. In other regions where there is a strong, coordinated advocacy, we found strong support for improving access to local food through food hubs, aggregation, training and education. Examples we found of local advocacy are:

1) Emmet and Charlevoix counties, where the Local Food Alliance of Northern Michigan meets regularly and is developing a plan to improve access to local foods.

2) The UP Food Alliance is spearheading the UP Food Hub movement with use of Electronic Matching software.

3) Traverse City Food shed Alliance supporting at least 2 Food Hubs and value added marketing.

The Amish community in the Mio/Fairview area was the most interested in pursuing this marketing opportunity. They have strong community interest and have several committees already working that are able to pursue this option. Interestingly, very few of the Amish in the community are producing vegetables for commercial sale. There is a local farmers market started by the Amish on Kittle road and also a small group of Amish collaboratively marketing in Shelby Township downstate. Again, most are more interested in animal production than vegetable production. Roscommon County has a core group interested in promoting local foods with one business interested in marketing products in their store.

Potential Components of Local Food Access

Based on the information and knowledge gathered during this study, we have developed a model of Local Food System Development as a means to demonstrate the components and activities that lead to the advancement or progression of improving access to local food on a regional basis.

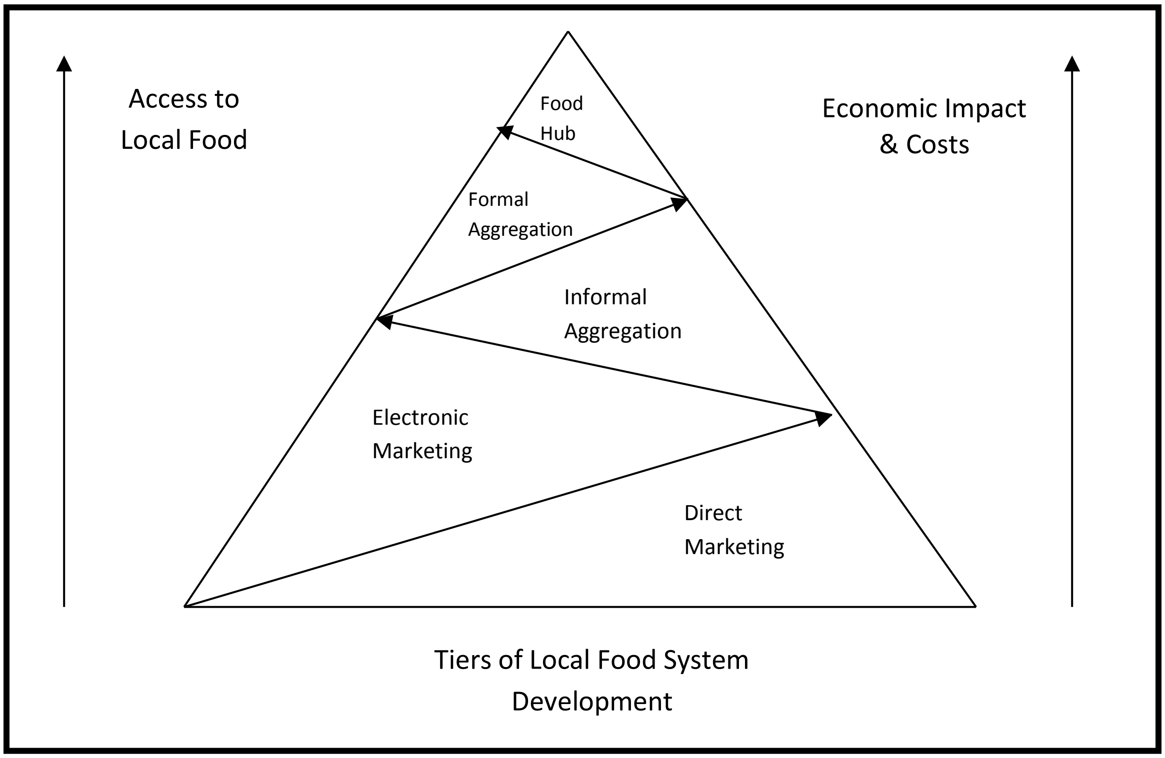


Figure 1: Tiers of Local Food System Development

Within this multi-tiered approach, the components in this model include: Direct Marketing, Electronic Marketing, Informal Aggregation, Formal Aggregation, and Food Hub. These 5 distinct types of local food marketing build upon each other. For example, it shows that Informal Aggregation of Local Food cannot happen without significant activity within the Direct Marketing and Electronic Marketing. Also that Informal Aggregation cannot stand alone, meaning that either or both Direct Marketing and Electronic Marketing need to continue once Informal Aggregation starts. Without Direct Marketing and Electronic Marketing activities, any Aggregation activity would collapse.

While this diagram does indicate a pathway or roadmap for the development or advancement of a strong local food system, it also provides a model for mapping all of the individual or group marketing efforts within a community.

Direct marketing

Direct marketing occurs via farmers' markets or one-to-one buying and selling and is currently happening in most of the region. It occurs at a fairly small scale and is the basis for most historic agricultural marketing throughout the world. It fills a very local and immediate need for food delivery and consumption, but may not be consistent nor reliable. Participants tend to be individuals buying from specific farmers when they have a need for products, and assuming the production fulfills the demand. DM is found at the farm level, at farmers markets, and through CSA type of relationships. Most farms participating at this level are small scale from a home garden up to a few acres. Responsibility for marketing, sales, production and record keeping rests solely with the individual producer.

- Advantages – low cost; simple to start; no formal coordination needed; no formal business model required
- Disadvantages – requires individuals to seek markets; no business support in terms of purchasing and accounting; individual responsibility for delivery and collections; loss of crop affects market; requires high level of skills in marketing, accounting as well as production.

Electronic Marketing

Electronic Marketing is defined as on-line activity to match buyers and sellers. It can include email lists, web site and/or social media presence up to software specifically designed to connect buyers and sells. Electronic marketing systems require formal agreements regarding delivery or pick up of products. Examples of this include the use of Local Orbit on-line services by the UP Food Exchange, Washtenaw Food Hub, and the Allen Street Farmers Market.

- Advantages – low cost; formal software to communicate availability of products; improved communication between buyers and sellers; buyers can obtain information on available products as their convenience;
- Disadvantages – individual farmers are responsible for delivery and payment collection; no coordination of production, quality or delivery;

Informal Aggregation

Informal Aggregation is informal collecting and distribution among a community of farmers. A group of farmers agree to combine their products for marketing purposes without a formal business legal entity, like a LLC. Can create more markets for farmers but is based upon good will between the farmers and the sharing of resources such as transportation, storage, information and labor.

- Advantages – minimal investment and cost; ability to sell to buyers who require larger quantities; shared resources among farmers; spread risk of crop failure
- Disadvantages – dependent on trust of participants; storage facilities limited; no formal structure and business support; no formal support for accounting and record-keeping; no coordination of production levels, quality or delivery; minimal accountability

Formal Aggregation

Formal Aggregation is a more formal business model where some form of business legal entity is created to guide the group such as a farmer's cooperative, LLC, non-profit, L3C, etc… Generally only includes the aggregating of products, but not processing nor other added value actions. All work is done my group members, including processing, labeling, marketing, accounting, delivery. An example in our area would be Local Eats in Pellston.

- Advantages – support for record-keeping and accounting; more diverse aggregation facilities; staff to market, arrange pick-ups/drop offs; facility with more cool storage, docks
- Disadvantages – more costs associated with larger facility and staff; lack of sorting, washing and processing facilities

Food Hub

Food Hub is a more complex aggregation, washing, sorting and packaging in addition to central marketing and business operations. Because this includes selling to larger institutions, it requires USDA Certification, GAP, HAACP and other required licenses as well as a certified kitchen with specific storage facilities that often require state inspections. Often includes hiring of staff for responsibilities such as procurement, processing, packaging, labeling, marketing and distribution. Equipment is owned by the business entity and not the individual famers. As a larger business entity, a food hub can work more effectively with public policy organizations. Since all facilities are centralized, it enables incubator businesses to be associated with the food hub. An example of this is The Brinery which is associated with the Washtenaw Food Hub. Many studies indicate that from $600,000 to $1,200,000 is the minimum in gross sales required for a food hub to be economically viable.

- Advantages – central marketing; central business operations and staff; facilities to wash, sort, package and process products; larger scale; staff to organize marketing, purchasing, and business operations
- Disadvantages – higher costs; requires higher quantity of sales and production; more capital required.

Additionally findings from our study indicate that there are many opportunities to improve or increase the access to local food in Region 3 that are appropriate for this region. Some of these could include:

- Technical assistance or Farmer trainings
- Establish Farmers Cooperatives
- Establish Farm-to-School activities
- Increase Agritourism
- NEMCOG website development and use
- Existing marketing opportunities (US 23 Heritage route and Taste the Local Difference)
- Many institutions that could be purchasing local foods such as: Alpena Combat readiness Center, Camp Grayling, Hospitals, Colleges and Schools.
- Increasing number of retirees and transplants moving to the area that are more likely to demand local foods.

Conversely, there are many issues or constraints that exist in Region 3 that are keeping the expansion of the local food economy moving slowly. These are things that are barriers to economic development in Region 3 and include issues such as:

- Lower population density

- Lower income per capita
- Older and less educated population
- Lack of Advocates or Policy groups
- Lack of coordination
- Food and health policies and rules
- Risk aversion high in region
- Lack of agency resources and support
- Vast area to travel for delivery

Agriculture is a large part of several county's economies in Region 3, but very minimal in others. By far, agriculture in the region is based in large commodity products – corn, wheat and soybeans as well as dairy and beef. Each county in the region has at least 1 Farmers' Market with some counties having multiple markets. There are also some Community Supported Agriculture operations in the region, with most counties having at least 1 CSA. Certified Organic farms are less prevalent, with 13 in total in the region.

There is interest in Region 3 to improve access to local food, but Region 3 does not have the necessary components for a viable food hub at this point and time – in the strictest definition of a food hub. The main barrier to developing a food hub in the region is lack of markets. Correspondingly, minimal production has developed due to lack of markets. Advocacy for local foods was not found in the region, outside of Roscommon County. Comparing other regions and areas that are pursuing food hubs or improving access to local foods, always there was a corresponding advocacy of some level in the community.

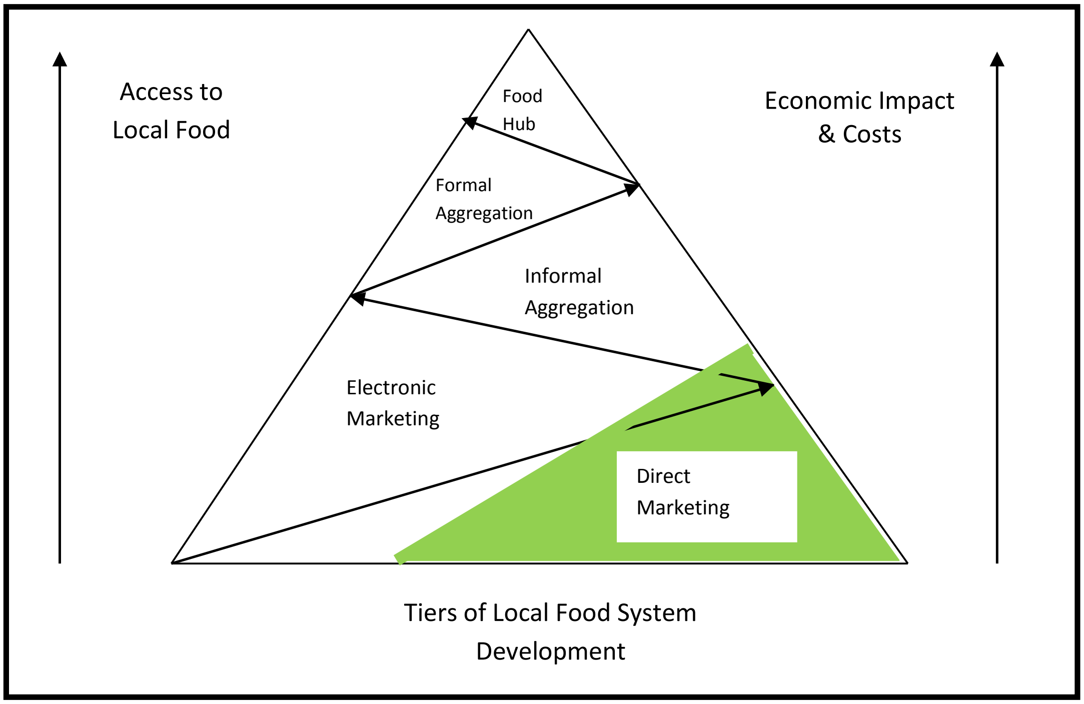
The Shared-Use Kitchen incubator in Hillman has remained much underutilized. One possible remedy for this would be to improve access to local food in the region and encourage more discussion and education around local foods. At this time, there does not seem to be enough market to encourage use of the kitchen. Successful Shared-Use Incubator kitchens usually have additional resources such as HAACP and GAP plans, labeling, cold or freezing storage facilities, and business assistance. This issue substantiates the idea that there is no one solution, but a diverse and varied approach to changing the current paradigm.

In response to the wide interest to improving access to food, but also addressing the constraints, a multi-tiered approach for increasing production and marketing is recommended for Region 3. Communities in Region 3 are at different stages of addressing constraints and opportunities. The region is also a very large area and diverse in types of communities. The multi-tiered approach offers variable levels of entry to improving access to local food, but also defines a progression to move along when each community or business entity is ready.

Recommendations

Because the initial motivation for this study was to examine the feasibility of creating a Food Hub in Region 3, we are using the Tiers of Local Food System Development Model upon which to base our recommendations. An economically sustainable Food Hub has many requirements but foremost among those is the need for an annual gross sales range of a minimum of $600,000 to $1.2 million dollars. Even by combining the sales of local food at existing farmers markets does not provide sufficient sales for a Food Hub in our region - yet.

Based on the model of Tiers of Local Food System Development, our designation for Region 3 a is that it is coming into the process firmly at the level of Direct Marketing and ready to move into Electronic Marketing and perhaps some Informal Aggregation in specific area of the region.



This is illustrated by the green triangle above in the model which encompasses most of the local food activity in Region 3. As the Local Food System developed, many things could be done to strengthen the direct marketing activities in Region 3 to provide more stability and reduce risk for the local farmers and buyers. But more importantly, many things could be promoted and/or support that would help to move the region up on the levels of food system development. It is also important to note that increasing collaboration with neighboring counties could support and encourage producers in Region 3 as most of the neighboring counties have advanced further along in their development of Local Food Systems with great examples of Formal Aggregation (Local Eats, Pellston; Cherry Capital, Traverse City; and Washtenaw Food Hub; U.P. Food Exchange, Marquette).

Specific Industries

In addition to the specific actions listed below, it is important to note the specific agricultural industries in Region 3 that would benefit from technical, marketing, financial and policy assistance. These include (in no order of priority or importance):

- Maple Syrup and related products
- Honey production and related products
- Poultry (Egg Washing and unique breeds of eggs production such as quail, ducks, and heritage breeds, free-range production)
- Organic grains (growing demand on western side of state)
- Food pickling and canning
- Grass fed beef
- Charcuterie
- Cheese and other milk products

Specific Actions

It is very important to note that Region 3 currently does not have the volume of production required to support a Food Hub. Nor is there sufficient demand for local food in the region. So how do we get there? How does Region 3 develop its Local Food System in a way that a Food Hub may become a viable option in the region to support better health and better economic opportunities? Much could be done but we are offering up some actions that are specific to our region. These are not listed in any order or priority. Specific actions to be undertake to help move the process forward for Region 3 include:

1. Food Arts Institute or Incubator: Something like Blue Mountain Station in Washington State. www.bluemountainstation.com This could be a joint Food Incubator/ Commercial Kitchen / Retail Agri-tourism Destination / Training Site.
2. Join the Taste the Local Difference campaign – advertise in the TLD publication and use branding materials for 2016 (no $ cost)
3. Development of Farm-to-School programs in the region
4. Farmers Training courses to include topics such as:
    a. Business planning offered to producers and processors
    b. Intensive Vegetable Production
    c. Organic Production and Certification
    d. Post-Harvest Processing, Storage and Marketing
    e. GAP and Group GAP
    f. Equipment options (cooperative purchasing and use)
    g. Electronic Marketing and Aggregation (CSA's and Local Eats)
5. Offer use of On-Line buy/sell matching. Could be very simple with only aggregation (no grading, sorting or repackaging, like Local Orbit software.
6. Support farmers in the efforts to build CSA marketing opportunities outside of Region 3, selling to larger urban areas with larger demand.
7. Hold at least on Producer/Buyer conference in the region

8. Hold at least one Food Service Conference with specific speakers from the industry who have successfully implemented a farm to school program
9. Create and promote Farmer-to-Farmer trainings and meetings, either at a central locations or break region into 3 sub-regions and hold meetings at individual farms.
10. Promote more community engagement in the local food system.
11. Develop Agritourism opportunities through Michigan Agritourism Association
12. Take advantage of Farmer Markets to further market on a larger, wholesale scale.
13. Support Farmers Markets and grow more Farmers Markets by offering training and coordination for the Farm Market Managers.
14. Explore USDA slaughter facility in this region (UP is already undertaking this exercise)
15. Utilize and promote current value added facilities (shared use kitchen in Hillman, develop others)
16. Support the establishment of a Truck Market (Mobile Aggregation which falls between Informal and Formal Aggregation) in the region. Perhaps this could start in Petoskey area in collaboration with Char/Em counties.
17. Commercial or Shared-use Kitchen that is also used as a site for training, storage, labeling and marketing. Point for collaborative, wholesale purchasing of processing inputs (Cooperative Buying Clubs). Certification training on Serv Safe, Pickling, High Acid products, Mushroom processing. For example, increase local potato by washing/packaging potatoes for retail markets.
18. USDA Meat and Milk Processing facility that would include training, commercial kitchen and cold storage for rent, shared use of inputs as well as a retail outlet to increase Agritourism to the region. Specifically Charcuterie and Cheese Making.
19. Map all Region 3 food participants on the Multi-Tiered model.
20. Arrange tour/visits to existing examples of hubs, meat facility and/or food aggregation groups.

Policy / Collaboration

Policy and advocacy for local foods is a critical component for a successful Local Food System. It has been noted that many other regions in the state have these types of non-profit, advocacy groups but none exist in Region 3. This is a serious impediment to improving access to local foods in this region. And at the same time, the health and economic conditions in Region 3 strongly indicate that there is a great need for better availability of fresh, local food in the region.

Local governments and community organizations should foster local capacity to help implement local and regional food-system plans. The establishment of local and regional food systems requires a good deal of local effort and coordination. When funding is available, there must be evidence that local capacity is sufficient to absorb it and that local food initiatives have reasonable prospects for success. In addition, assistance should be provided to prospective applicants for developing business plans, conducting outreach, and seeking funding opportunities.

The current U.S. food system, which advocates the intensive use of inputs, homogenization, and economies of scale, promotes environmental degradation. Because the current policy environment favors agribusiness at the expense small farmers, farm workers, consumers, and the environment, it is imperative to seek an alternative. If U.S. government subsidies continue to be driven by an export-production model, it is unlikely that the poorest Americans will receive the support they need. On a national scale, the export production model is simply not suited to addressing the needs of these rural and low income communities and the environments in which the farmers live. On a regional scale, growing commodity crops and shipping this produce (wheat, potatoes, soybeans, dry beans and corn) also negatively impact not only the availability of local foods but also the health and economic development of the region.

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