



Section 06

Local Food and Agriculture



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Local Food and Agriculture

Why Local Food and Agriculture Are Important

Climate change directly impacts the food system. For people experiencing nutrition insecurity, climate change is a threat multiplier which exacerbates existing food access and affordability issues. Extreme weather events, extreme temperature variations, changes in precipitation, changing soil temperatures and other climate impacts will affect crop yields. Climate impacts can also introduce interruptions in the current food processing and distribution system. Disruptions that occur in the food system are likely to cause food availability or pricing fluctuations

A significant number of individuals in Bloomington are experiencing food insecurity. The Bloomington Food Policy Council identified the following neighborhoods as at risk for food insecurity Crestmont, Reverend Butler, Walnut Woods, Maple Heights, and Broadview. Food insecurity continues to grow in the face of economic challenges with thousands of meals served every week from direct service providers in 2020.

On the map to the left, highlighted sections represent low-income census tracts at least 500 people or 33 % of residents are more than 1 mile (green sections) or 1/2 mile (orange) from the nearest supermarket (defined as a store containing all the major food departments necessary to provide full nutrition to a household) .

Indiana is one of the most powerful agricultural states in the nation, ranked #10 in total production. However, more than 90% of the food consumed and processed in Indiana is imported from other states. Studies conducted by the Indiana State Department of Agriculture (ISDA) and the Indiana State Department of Health (ISDH) over the past eight years have outlined several reasons for this:

- a lack of agricultural diversity and midscale farms producing specialty crops in Indiana
- weak farm to buyer network connections
- lack of local or state policies that support purchasing of local food with public money
- few processing centers for value added food businesses

Though there are now multiple farmer's markets serving the Bloomington area, there are limited retail and institutional purchasing outlets as part of the local food system.

Strengthening the local food market can address the challenges that climate change poses to the broader food system, while simultaneously supporting small businesses and the local economy. Studies have indicated that nearly 32 jobs are created for every \$1 million in revenue generated by producers involved in a local food market, compared to only 10.5 jobs for those involved in wholesale channels exclusively. Healthy local food systems can also play a critical role in addressing food access vulnerability and food insecurity within neighborhoods of higher vulnerability. A robust local food system establishes additional supply chains and resilience to distribution disruptions, increasing overall community resilience.

Climate Change Considerations



Climate Hazards

Hazards to the local food and agriculture system include reduced crop quality and yield, vulnerability to pests and soil moisture as well as fluctuation in availability, food price volatility and change.

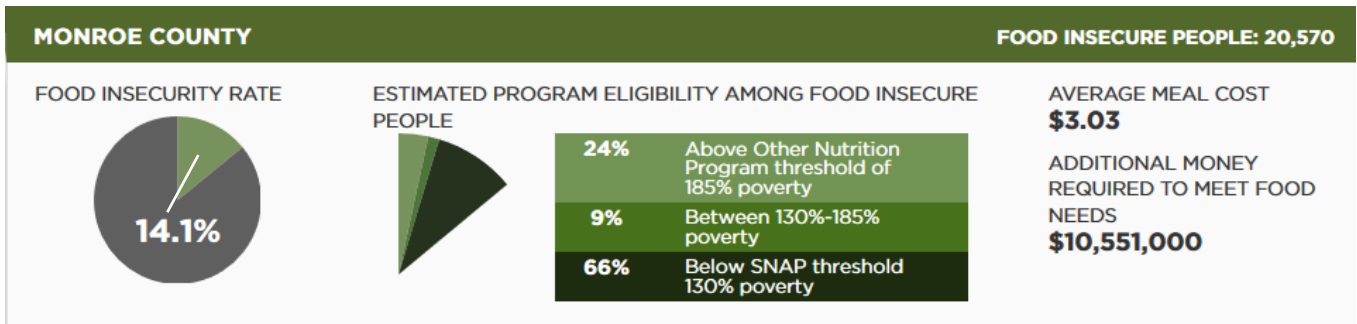


Opportunities

Increased capacity of local food and agriculture systems and improved farm-to-table approaches can reduce community food insecurity while creating local jobs and improved community resilience.

Equity Considerations

- People in low-income neighborhoods may have limited access to full-service supermarkets or grocery stores - areas known as a “food deserts.” Over 14% of Monroe County households are food insecure – over 30% of those with incomes above assistance program thresholds.
- Studies have also shown that communities with fewer resources often have more outlets that promote unhealthy foods and little access to affordable nutritious food, a condition known as a “nutrition desert.”



(Graphic source: Feeding America)

Sector Goals

Sector goals are established to both support the City’s Climate Action Plan in creating a climate resilient community and to reduce city-wide GHG emissions 25% below 2018 levels by 2030.

Sector goals related to GHG emissions reductions are designed to balance reduction across all sectors and achieve the overall emissions goals set forth for the community. The goals seek to strike a balance between achievability while also reaching -for improvement beyond business-as-usual.

As indicated in the introduction, the Climate Action Plan is intended to be a 10 year plan to be updated at the completion of that time. Consequently, the goals and strategies outlined in this section are intended to be achieved by 2030 unless otherwise noted.

Implementation of actions are anticipated to be initiated over 3 phases: phase 1 within 1-3 years, phase 2 within 2-5 years, and phase 3 within 4-8 years of CAP approval.

Goal FA 1

Increase food and nutrition security citywide.

Goal FA 2

Increase local agricultural resilience to climate shocks.

Goal FA 3

Increase and stabilize local food market.

Goal FA 1 Increase food and nutrition security citywide.

Strategy FA 1-A:

Address financial food insecurity.

How We'll Measure Progress:
Food insecurity reported in City and County

75% of food insecure individuals in Monroe County are low income. The majority of these individuals (88%) are “very low income” (below 135% of poverty level), indicating a clear relationship between financial insecurity and nutrition insecurity in the community.

Co-Benefits of Strategy:

Improved Community Equity Improved Community Resilience



	Actions	Implementation Phase
FA1-A-1	Explore potential of collaborating with low cost produce providers to establish local food markets serving low income, vulnerable, and food insecure communities while addressing retail and commercial food waste.	1
FA1-A-2	Continue to provide enrollment assistance for participation in the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) Program and other food assistance programs, as well as supporting local initiatives addressing financial food insecurity.	2
FA1-A-3	Work regionally to support and facilitate food donation programs. Food donation programs reduce the amount of healthy, safe food that goes to waste and redirects it to those in need.	2

Strategy FA 1-B:

Improve food access.

How We'll Measure Progress:
Food insecurity reported in City and County

Individuals living with food insecurity are particularly vulnerable to impacts and risks of climate change. As indicated in the USDA Food Map, many sections of Bloomington have significant portions of the population who are economically stressed as well as having limited access to transportation and living 1/2 mile or further from a grocery store. Increasing food access will decrease food insecurity improve community resilience and adaptative capacity to climate impacts.

Co-Benefits of Strategy:

Improved Community Equity Improved Community Resilience



	Actions	Implementation Phase
FA1-B-1	Conduct a detailed Food Security Assessment to determine food insecurity conditions within the City, areas with limited access to full service grocery stores and markets (particularly within areas of higher vulnerable populations), identify areas within the City for improvement, and establish detailed strategies to increase food security within City.	1
FA1-B-2	Support senior programs that involve both food and community such as volunteering or donating to local charities.	1



Actions		Implementation Phase
FA1-B-3	Collaborate with convenience stores and food pantries to incentivize the purchase and distribution of affordable, fresh foods.	1
FA1-B-3	Develop an emergency food plan that includes a food needs assessment, scenarios for provisioning necessary food supplies during a range of anticipated emergencies, and a distribution and public communication plan that takes into account those most at risk for food insecurity. Work with local retailers, producers, and warehouses to implement food provisioning scenarios.	2
FA1-B-4	Improve the availability of culturally appropriate food accessible to the City's populations of color, religiously diverse, and limited English speakers. Explore opportunities to expand local development of these goods through engagement with local food producers and promote information on locations and price ranges of uncommon culturally important produce and food products.	2

Goal FA 2 Increase local agricultural resilience to climate shocks.

Strategy FA 2-A:

Provide information and promote climate responsive agriculture practices.

How We'll Measure Progress:
Reported percentage of local food growers adopting climate adaptive strategies

According to research completed for “Estimating economic damage from climate change in the United States,” a 2017 study completed by Solomon Hsiang and others from the University of California at Berkeley, agricultural yields are projected to decline with the increase of Global Mean Surface Temperature in addition to impacts related to precipitation changes. Although increased CO2 levels are anticipated to offset a portion of these yield losses, the impact for much of the United States will be a net negative. By 2100 the projected impact to the Monroe County economy is -35.6%. See the Bloomington Climate Risk and Vulnerability Assessment.

Co-Benefits of Strategy:

Protected / Enhanced Ecosystems

Improved Community Resilience



Actions		Implementation Phase
FA2-A-1	Collaborate with the Monroe County School Corporation, Monroe County, Indiana University, Monroe County Farmer's Association, Indiana Grown, and local organic farmers associations to encourage adoption of strategies to increase soil health and increased carbon sequestration for Croplands and Grazing Lands. Tools: http://www.comet-farm.com/ GHG and Carbon Sequestration Ranking Tool: https://cutt.ly/Vf04djN	1
FA2-A-2	Develop and deliver educational materials for producers that will assist them in understanding the differences between normal weather fluctuations and long term climate change, as well as provide information on the agricultural crops, varieties, and methods most suitable for our area.	2

Strategy FA 2-B:

Support climate resilient agriculture through City plans and programs.

How We'll Measure Progress:
Status of City plan and program development

Addressing agricultural resilience through community level planning provides opportunities to improve overall community resilience to climate change impacts and to guide long-term local food infrastructure to support communities in greatest need.

Co-Benefits of Strategy:

Reduced Costs



Improved Community Resilience



Actions	Implementation Phase
<p>FA2-B-1 Collaborate with Monroe County to develop a comprehensive farmland conservation plan that prioritizes food production while taking into consideration other Bloomington greenspace and climate adaptation priorities. The plan could also include specific maps or areas prioritized for farmland conservation or identify those areas most at risk from development or climate change impacts. Program should focus on exploring increased local food-to-table, local food utilization, and local development of cultural food products in support of Bloomington area underserved communities.</p>	1
<p>FA2-B-2 Work with Bloomington Water Utility and community partners to determine the feasibility of offering rebates or other incentives to farmers for irrigation water management equipment, water storage, reclaimed water, and conservation tillage equipment that saves potable water.</p>	2



Goal FA 3 Increase and stabilize local food market.

Strategy FA 3-A: Increase local food supply.

How We'll Measure Progress:

Status of Food Coordinator staff position; Status of urban agriculture ordinances

Strengthening local food sources can address both climate change relationships with food and also supports small business local economy. As outlined in the study *The Food System as an Economic Driver: Strategies and Applications for Michigan*, nearly 32 jobs may be created for every \$1 million in revenue generated by produce farms involved in a local food market, compared to only 10.5 jobs for those involved in wholesale channels exclusively. Healthy local food systems can also play a critical role in addressing food access vulnerability and food insecurity within neighborhoods of higher vulnerability.

Co-Benefits of Strategy:

Protected / Enhanced Ecosystems



Improved Community Resilience



Actions	Implementation Phase
FA3-A-1 Fund a Local Food Coordinator position with an annual budget for activities and initiatives to focus on a values-based supply chain for buyers in the City. Working with City officials, this coordinating professional will define the climate values (i.e., local, soil health, animal welfare, fair wages, nutritionally dense, etc.) and define the foodshed or geographic area of food production that the City can influence through policy.	1
FA3-A-2 Revise zoning ordinances to remove barriers to urban agriculture: yard and rooftop food production, edible landscaping and foraging. Examine and pursue other policy levers to increase food production within the City. Utilize available and appropriate Parks and Recreation lands for urban farming and food production.	1
FA3-A-3 Assess, develop, and adopt financial incentives through CDFI and CDBG programs to recruit and support the startup of small and mid-sized food processors in the City.	1
FA3-A-4 Collaborate with Monroe and other nearby County (non-City of Bloomington) officials, residents, and communities to bolster (1) the region’s food supply, (2) aggregation and processing abilities, and (3) distribution capacity for both urban and rural residents alike. Work through existing partnerships or develop a new collaborative that brings key stakeholders from the Indiana Uplands as well as Jackson, Bartholomew, Johnson, Morgan, and Putnam counties into conversation for broader regional planning on a resilient food system for the future.	2
FA3-A-5 Support existing school and community gardens and provide opportunities to expand community growing spaces with a focus on youth, immigrant, and low-income residents.	2
FA3-A-6 Support efforts to identify and increase utilization of shared food system assets such as shared food storage space, community commercial kitchens, group purchasing of growing equipment such as backyard greenhouses or hoop houses, and public-private partnerships.	2
FA3-A-7 Equitably promote educational opportunities for residents to gain skills in organic gardening, fruit production, food preservation and cooking and affordable, healthy eating.	2
FA3-A-8 Develop entrepreneurial program for middle and high school parents to grow food and sell in marketplace.	3

**Strategy FA 3-B:
Strengthen demand for local foods.**

How We'll Measure Progress:
Status of Local Food Procurement policies

Increased demand for locally produced food ensures the economic resilience of local producers, leverages the local job creation potential of local food systems, and supports improved nutrition for consumers while improving community resilience.

Co-Benefits of Strategy:

Improved Quality of Life



Improved Community Equity



Actions	Implementation Phase
FA3-B-1 Pass city policy to procure locally grown and organic foods for events and other organized food catering at city-managed facilities. Coordinate with School District, Indiana University, County, and local hospitals to establish similar locally sourced foods procurement policies. Explore development of group purchasing and logistics agreements to increase efficiency of local farm-to-agency process. https://goodfoodpurchasing.org/	1
FA3-B-2 Establish a policy to allow city facilities to be used as Community Supported Agriculture drop off sites and promote their use among local food producers and consumers.	2
FA3-B-3 Promote and expand public education campaigns to encourage purchasing and procuring locally grown and organic food at the individual and institutional level.	2
FA3-B-4 Expand Farmers Markets (particularly year-round market opportunities), local food hubs and marketing of locally produced and organic foods. Efforts to focus on increased community equity and food security among at-risk populations.	3



What You Can Do

- Rent a plot at your local community gardens and grow your own.
- Eat a plant-rich diet. Animal products are extremely GHG-intensive to produce compared to plants. Eating less meat and dairy will reduce emissions associated with food consumption. Eating regionally-grown food that is suitable for the Indiana climate will also make a difference through reduced transportation-related emissions. A great place to start is with “Meatless Mondays” or one meat-free meal a day.
<https://ourworldindata.org/food-choice-vs-eating-local>
- Buy food directly from a local grower on an ongoing basis.
- Plant fruit or nut bearing trees or shrubs that are well suited for our hardiness zone on your property.
- Support restaurants and grocery stores that use and sell locally-grown food.
- Buy food that is in season, minimizing the distance food must travel.
- Support your local farmers markets.
- Buy ethically grown and harvested food, like fair-trade coffee and chocolate.



