The SLO County Food Systems Atlas provides a broad overview of inter-related aspects of the food system of SLO County from a resilience and sustainability perspective, revealing many strengths of the current system, as well as vulnerabilities to be addressed.

The Atlas contextualizes the county in larger food flows, including the San Francisco-Los Angeles corridor, and relationships to adjacent growing regions. In addition, the study integrates first-person, locally-based insights from consumers and growers on challenges, priorities and customs around food production and consumption.

The Atlas is intended for use by anyone who is a part of the regional food system of SLO County. In particular, it is meant to support the work of agencies, government, institutions, non-profits, and advocacy groups who are working towards a more sustainable and resilient food system in the county.
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Introduction

What is a Food System?
A food system is comprised of all the people, processes and infrastructure involved in growing, processing, distributing, consuming, and disposing of food. Food systems exist at several scales, from the local to the global, and engage many facets of society including agriculture, economics, urban planning, community health, recreation, business, government, and transportation to name just a few. Food systems are influenced by social, cultural, political and natural factors, and are ultimately based on the land and natural systems.

Sustainability & Resilience
Sustainability is the ability of a system to “meet the needs of the present without compromising the ability of future generations to meet their own needs.” ¹ A sustainable food system is one which gives equitable consideration to all elements of the system, including natural processes. (Figure 1)

Resilience is an evolving concept in the field of sustainability planning. Originally defined as the capacity for an (eco)system to return to an original state after disruption (after a natural disaster for example), the definition has been expanded to include community capacity to change and adapt in response to sustainability goals. ² ³ Resilience in food systems planning can best be understood as a visual, spatially-based resource using maps and diagrams. Because resilience is a process that involves people working towards transformation, the Atlas seeks to reveal key resiliency factors about the regional food system in a way that engages the community, in both the research process and as a reader. The Atlas was created through a process of community capacity (education).

Food Security
Food security is the condition in which all people, at all times, have physical, social and economic access to safe and nutritious food that meets dietary needs and food preferences. ⁴ Food security is most often understood as a question of individual or family economic access, and programs such as food banks and the federal Nutrition Assistance Program aid vulnerable persons in securing food. This report also addresses community food security, in which the impacts of environmental stressors, rising food prices, extended food supply chains, and other resiliency factors that can affect the entire community (including vulnerable populations and the programs that serve them), are evaluated.

Land-Based Approach
San Luis Obispo (SLO) County has been the subject of a number of food systems reports, including Paradox of Plenty (Food Bank Coalition of SLO County, 2012), Assessing the San Luis Obispo County Food System (UC Davis, 2014), the Public Land Survey of San Luis Obispo County (Central Coast Grown, 2014); the Central Coast Foodshed Guide (CAFES, 2015) and Vital Signs: Food Systems in San Luis Obispo County (ActionSLO, 2018). The SLO County Food Systems Atlas builds off of these previous studies, presenting the assets and challenges of our food system as a visual, spatially-based resource using maps and diagrams. Because resilience is a process that involves people working towards transformation, the Atlas seeks to reveal key resiliency factors about the regional food system in a way that engages the community, in both the research process and as a reader. The Atlas is intended for use by anyone who is a working towards a more sustainable and resilient food system in the county.

Scope of the Atlas
Food systems are by definition complex and multi-layered. The scope of this report focuses on one chain in the overall system, from farm to individual consumers, as highlighted in Figure 2. Scope of the report is also limited to fruit, nut and vegetable production.

Existing examples of food resilience plans within the United States, including the Rockefeller Foundation’s report on The Resilience of America’s Urban Food Systems (2017) and the Baltimore Food System Resilience Advisory Report (2017) take a disaster-resilience approach which considers the vulnerability of food systems to disasters such as earthquakes. A land-based resilience approach considers system stressors rather than shocks, focusing on long-term issues such as drought, development patterns, and land-use.

The Atlas is intended for use by anyone who is a part of the regional food system. In particular, it is meant to support the work of agencies, government, institutions, non-profits, and advocacy groups who are working towards a more sustainable and resilient food system in the county.

A note about scale: As the Atlas is intended for use by local stakeholders, including laypeople, who are familiar with the scale of the county, scales are indicated on maps through visualizations rather than bar scales. There are three map scales used in the atlas: 1) a regional scale from Los Angeles to San Francisco and east to the Nevada/Arizona border; 2) a county scale focusing on the populated corridor along Highway 101 and the coast; and 3) an expanded county scale including settlements in the interior of the county.

Footnotes

Figure 1. Elements of A Sustainable Regional Food System
Source: Adapted from Scenic Hudson Foodshed Conservation Plan (2013)

Figure 2. Scope of Report: The Food System.
The SLO County Food System Coalition organizes its vision into four pillars: profitability, equitability, health promotion, and resiliency. The Atlas primarily addresses the pillars of profitability and resiliency, and acknowledges the work of many community partners in addressing all four pillars through research, advocacy, and outreach.

Source: SLO County Food System Coalition, 2018.

Figure 3. Scope of Report: Vulnerability Factors. Source: Adapted from Kimberly Zeuli and Austin Mijhsis. The Resilience of America’s Urban Food Systems: Evidence from Five Cities. The Initiative for A Competitive Inner City (ICIC) and The Rockefeller Foundation. 2017.
Executive Summary & Recommendations

This study provides a broad overview of inter-related aspects of the food system of SLO County and begins to contextualize the county in larger food flows, including the San Francisco—Los Angeles corridor, and relationships to adjacent growing areas. In addition, the study integrates first-person, locally-based insights from consumers and farmers on challenges, priorities and customs around food production and consumption.

The maps and research in this document reveal many strengths of the current food systems in SLO County, as well as vulnerabilities. This section of the Atlas summarizes strategies that may be used by food system planners and advocates to address vulnerabilities, and makes recommendations for further research needed.

Scholars have identified eight qualities of resilient food systems, six of which are used here as a framework for the recommendations. The language of these recommendations focus on producers but can be expanded to include all parts of the food system, including consumers:

**Connectivity:** Farmers are connected to a variety of other producers, suppliers and distributors but not solely dependent on any single connection.

**Locally Self-organized Farmers, marketers and processors have developed systems owned and managed by themselves.**

**Responsive Redundancies:** The system has backups and can replenish its components. This may refer to physical infrastructure, distribution systems, or even knowledge shared between farmers.

**Increasing Infrastructure:** There is an increase in ecological, physical and social infrastructure. This might include increasing water harvesting capability, increasing soil organic matter, establishing on-farm storage, and increasing value-added processing capacity. Education of farmers, community members, planners, and advocates can also be seen as an increase in social infrastructure (knowledge base).

**Complementary Diversity:** The wastes of one system are turned into the valuable inputs of another system.

**Ecological Integration:** Natural ecological processes are utilized to increase productivity and decrease imported inputs. Basic examples include reduced tillage, integrated pest management, and use of cover crops.

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**Increase support for small farmers**

Small local farms are an important part of resilient food systems, providing critical redundancy to regional, national, and global food chains, and functioning as part of the identity of the county. While several local organizations, including Slow Money SLO and the Farmers Guild currently work to implement many of these recommendations, broader support from local government is needed to catalyze some of these projects, which can in time become self-supporting but required structured initial investments.

- Create a locally self-organized distribution chain to support small local farmers and build community food security.
- Invest in agricultural infrastructure such as food processing, storage, and distribution, as well as value-added food production facilities. Facilities should be able to service both organic and conventional farmers.
- Expand buy-local programs and incentives to increase restaurant, commercial, and institutional purchasing from small locally-owned farms.
- Connect community volunteers with farmers through volunteer programs for assistance with social media, marketing, paperwork, work days and other needed assistance.
- Increase connectivity between small farmers, suppliers, and distributors through digital or in-person events and forums.

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**Increase consumer awareness of local food systems**

A locally-based food economy depends on consumers who understand and value the local food system. Consumers in this study demonstrated low awareness of key aspects, such as definitions of local (for example, any product grown in California may accurately be labelled local), and food pathways (assuming for example that food grown in the county is directly distributed in grocery stores). Increasing consumer awareness and advocacy for small independent farmers in the county is a key step to supporting other recommendations. Critical to this and the previous recommendation is making a distinction between larger growers/producers that grow in the county, and small local farmers.

- Provide preference for local independent farmers at farmers markets, and/or establish a farmers market exclusively for local small farmers and processors.
- Establish and support a branding campaign, with clearly stated criteria and monitoring, for locally owned farms and processors.
- Establish and support a consumer buy-local campaign to incentive shopping at (local) stalls at farmers markets.
- Increase awareness of local food systems through magazines, publications, events, education campaigns and other marketing methods.

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**Continue support for community production**

Community production, such as community gardens, home-gardening, and school gardens increases the knowledge base within the county, and contributes to the factors of connectivity, redundancy, local self-organization, and increasing social infrastructure.

- Continue, and increase, funding for school and community gardens. Increase the number of community and school gardens, particularly in underserved parts of the county.
- Provide classes on backyard gardening to increase community production in an ecologically integrated manner, in which residents learn organic growing and water-conservation methods.
- Continue and expand farm-to-school programs for nutrition education and food service, including incentives for local purchasing.
- Encourage climate sensitive agricultural methods and crops.

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**Increase food access for economically vulnerable populations**

High costs of living and wide income disparities across the county create many vulnerable populations, including agricultural workers, and low-middle income families who fall between federal poverty limits and county Real Cost Measures.

- Holistically plan for food systems along with housing and transportation as a connected, integrated, and locally self-organized system that meets the priorities and needs of all county residents.
- Integrate use of the Real Cost Measures into planning and advocacy work to better address costs living in SLO County.
- Continue to support housing for agricultural workers, and increase housing options for low-middle income families.
- Increase support for activities that foster complementary diversity, such as Green SLO and supermarket donations to the Food Bank, and identify new opportunities for impactful activities.

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**Collect place-based data and support locally-self organized projects**

Resiliency as a framework anticipates future changes which may affect sustainability and quality of life, and relies on adaptability of a community. Willingness to try appropriately-scaled new approaches to community food security is a necessary step towards achieving food systems resiliency.

- Collect and publish place-based data to support evidence-based decision making by non-profits, community organizations, and government.
- Support pilot projects to test potential solutions that create more resilient, equitable and sustainable food systems in the county.
- Periodically renew food systems studies to ensure relevancy to current conditions.
- Formalize food planning coordination within County government through a paid staff position(s).

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**Reduce or eliminate agricultural land conversion outside of existing city limits**

The county topography results in a fairly small proportion (roughly 25%) of designated agricultural soils. Conserving these areas and planning for development within existing city limits is a critical support to food systems planning. Use of conservation easements for agriculture may reduce land cost burdens on small farmers, allowing expansion of existing operations and establishment of new operations.

- Holistically plan for food systems along with housing and transportation as a connected, integrated, and locally self-organized system that meets the priorities and needs of all county residents.
- Consider higher-density land uses within existing city limits to increase available housing stock while reducing pressure on agricultural land.

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The term foodshed describes the flows of food from production to consumption, including the land food grows on and the markets it passes through. The concept of a foodshed allows us to better understand how places are related to and dependent on each other in the food supply web.

Global Foodshed
San Luis Obispo participates in global food flows as both importer and exporter. While specific data for the county is not available for imports, as a proportional share of the state total county imports would release 490 tons of CO2 per year, or the equivalent of 1.06 million miles driven by passenger car.¹

Imports of fruits, nuts, and vegetables to California release more than 70,000 tons of CO2 per year (equivalent to 151 million miles driven by passenger car).²

The United States as a whole exports ($82.6 billion) slightly more food products by value than we import ($60.9 billion).³ The largest share of U.S. food imports come from Canada (34.9%), followed by Asia (24.4%) and South/Central America (19.2%).⁴

Foodshed

SLO County Food Exports Map. In 2017, agricultural products were shipped from SLO County to 51 different countries, as well as to other states within the United States.²

¹Based on U.S. 2018 Census Data for state and county population
²County of San Luis Obispo Department of Agriculture/Weights & Measures, 2017, 2014 Annual Crop Report
⁴Statista, Share of food imports of the United States in 2012, by origin
Regional Foodsheds

SLO County is part of the foodshed for Los Angeles and San Francisco, supplying fresh produce to the consumers of both metropolitan areas. The Los Angeles Food Policy Council formally established SLO County as part of the Los Angeles regional foodshed in their 2014 sustainability study¹ and county farmers report selling to distributors in both Los Angeles and San Francisco. Conversely, SLO County relies on distribution patterns that originate in Los Angeles and San Francisco for the county’s food supply (see Community Foodshed map, page 25). There is a reciprocal relationship of supply and demand, and active flows between (and beyond) the regions. Supermarket chain warehouses supplying Los Angeles are located in Nevada, Arizona, and Oregon.² These same warehouses are also likely part of the supply chain for SLO County supermarkets.

SLO County is part of the Central Coast growing region, a coastal valley extending from Monterey County to Santa Barbara County³ that produces a number of key export crops including wine grapes, lettuce and strawberries. SLO County also lies adjacent to the Central Valley growing region, home to 8 of the 10 most productive agricultural counties in the state.⁴

This map illustrates the inter-dependence of these areas of population and production through overlapping foodsheds and diagrammatic food flows. Given the interrelated nature of the foodsheds one question this map poses is whether organizing sustainable and resilient food systems based on political geography, like county lines, is the best approach.

³ California Ag Network. 2017. A look at year-round lettuce production from California’s Leafy Greens Agreement.
⁴ California Department of Food and Agriculture. California Agricultural Statistics Review, 2015-16.
What do we mean when we eat ‘local’ food?

Several official definitions of local food exist. The New Oxford American Dictionary defines a ‘locavore’ as a person who eats only food grown or produced within a 100-mile radius of their home. The U.S. Senate, in the 2008 Farm Bill, defined local as an item sold less than 400 miles from its origin, or the state in which it is produced. While many organizations, such as the American Farmland Trust, use 100 miles to define a regional local foodshed, others, such as the Los Angeles Food Policy Council, expand the definition to 200 miles. The map to the left visualizes what these definitions mean for San Luis Obispo County.

While local food systems are often presented as being more sustainable, there is no simple relationship between scale and either sustainability or resilience. Communities must be explicit about the goals they believe a local food system should promote, which often include organic agriculture, support for small-scale farmers, climate-appropriate growing methods, and fair labor practices. While each of these qualities may exist in a local food system, it cannot be assumed based on geography alone.

Responses from the community (n=40) indicate a number of goals that residents believe local agriculture achieves (or can achieve): 38% of respondents associated local food with healthier food; 33% of respondents associated local food with improved sense of community; and 25% of respondents associated local food with improved environmental health, either through more environmental farming practices or reduced transportation distances. 45% of respondents in Nipomo, many of whom are employed in agriculture, described local food as a core part of the economy and a source of work, compared to 10% of respondents in the San Luis Obispo and Paso Robles workshops. For more community insights see pages 29-30.
Production

Agricultural production in the County includes produce, livestock, wine grapes and fisheries, and takes place at a number of scales, from 1/2 acre family farms to large growing operations for multi-national companies. The Atlas focuses on produce crops including fruits, vegetables, and nuts, and on challenges for small-scale independent growers.

Agriculture is a major industry in San Luis Obispo, with an increase in total farm sales to $924 million in 2017 from $213 million in 1992.¹ But there may be a trend towards consolidation, with larger growers playing a bigger role in the industry. Between 2007 and 2012 the total number of farms in county fell by 4%.² During the same period the average farm size increased slightly², suggesting that fewer producers are farming more acreage.

Large growers often focus on high-value export crops such as berries and greens. While these farms contribute to the economic vitality of the county, they do not contribute to building a diverse food supply for local consumption — a key element of a sustainable and resilient local food system. From a community food security perspective, establishing secondary supply lines for a diversified food supply is critical.

Supporting small farmers in maintaining a livelihood in the county is important to retaining the unique culture of San Luis Obispo, which attracts new residents and visitors alike. This study conducted interviews with 23 small farmers to understand the assets and challenges they face as independent enterprises in the county. Key take-aways from the interviews are found throughout the Atlas, and on pages 31 to 33.

County farmers produce 7.5 pounds of fresh produce per resident per day, yet less than 3% is consumed by county residents.³

¹UC Davis, Assessing the San Luis Obispo Food System, 2014; County of San Luis Obispo Department of Agriculture/Weights & Measures, 2017 Annual Crop Report
²Action SLO, Food Systems Folio, 2018
³Food Bank Coalition of San Luis Obispo County, Paradox of Plenty, 2012
Local Production

The top three crops by value in 2018 were wine grapes, strawberries, and broccoli.¹ The overall pattern of agriculture in the county is a predominance of widespread ranch land, with mostly wine-grape vineyards in North County and more concentrated row cropping in South County.

There are approximately 1.5 million acres of farmland in production in the county, 93% of which is farmed as ranch land, with the remaining 7% in cultivation for wine grapes, orchards, and row crops.² In addition, there are approximately 600,000 acres of prime ag soils not in production.³

Because GIS data for farm production is based on parcel data, rather than farm owner/operator, it is beyond the scope of this report to identify the average size of farms in the county (as one operator may produce on multiple parcels).

The Department of Agriculture reported a 5% increase in overall harvested vegetable acreage and a 3% increase in fruit and nut acreage in 2018 compared with the previous year.¹ Increased rainfall and more stable labor conditions are credited for these increases. Viewed over a longer time span however there has been an 25% decline in vegetable acreage in the county over the past decade.¹ ³ County Department of Agriculture research reports that vegetable growers view regulations, increased imported product, and high operating costs as challenges to making vegetable production in the county a profitable endeavor.

In 2019 there was a 35% increase in the amount of registered organic acreage¹, with 5% of farmland in the county now registered as organic. The top organic commodity is cattle and calves, accounting for 88% of all registered organic acreage. Other top organic commodities include grain, carrots, wine grapes and walnuts.

¹County of San Luis Obispo Department of Agriculture/Weights & Measures, 2018 Annual Crop Report
²based on analysis of SLO County GIS data layer AG_CROPS, 2016
³County of San Luis Obispo Department of Agriculture/Weights & Measures, 2008 Annual Crop Report

Note: 4 of the farmers interviewed were tenants at City Farm in San Luis Obispo. Total farmers interviewed = 23
Community Production

Community production is a key element of a sustainable and resilient food system. Community gardens and backyard gardens allow families and individuals to grow their own produce, which increases the ability to support oneself and neighbors during any food shortage or spike in food prices. And like school gardens, all types of engagement with growing produce increases the knowledge base of the community at large, a key factor in social-ecological resilience. An informed community is better able to address disruptions and participate in recovery efforts.

Strengths:
The county has a strong infrastructure of school gardens. These gardens serve multiple purposes as part of a sustainable food system, including teaching healthy eating and creating interest in farming in younger generations. Many schools in the county also host 4-H clubs which similarly contribute to community knowledge base. Community gardens are less evenly developed across the county. While some more populated areas, such as San Luis Obispo, have a number of community gardens, other populated areas, like Paso Robles, have none. Home production shown on this map is derived from Food Bank data on donations of surplus produce. While it is clear that areas south of the grade have strong engagement in backyard food gardening, it is less clear whether North County residents are not food gardening, or whether other factors contribute, such as donating surpluses to neighbors rather than the Food Bank.

12 community gardens
49 school gardens
208 produce donations from home harvests¹

Productive Valleys

Soil and Water

Agricultural production in the county occurs largely in valleys where prime farmland soils and groundwater basins intersect. Four fingers of prime farmland soils extend between the coastal ranges, running diagonally across the county. This is a pattern derived from the unique natural forces that developed the geology of the county, and reveals the limited availability of productive land.

Agricultural use of groundwater is contentious, especially in recent drought years. Larger operations can afford to dig deeper wells, putting stress on adjacent rural neighbors including small farmers. The Sustainable Groundwater Management Act (SGMA) designates the importance of groundwater basins based on population, irrigated acreage, and number of wells, among other factors. Of SLO County’s six groundwater basins, four are designated as high priority, and two as medium priority. Two basins, Paso Robles and Los Osos, are also designated as critically overdrafted, a condition in which groundwater extraction exceeds the long-term average annual supply of water to the basin.

Crops grown for export in arid regions are sometimes described as virtual water exports. While it is not literally water being exported, but wine, or beef, or strawberries, the concept describes a way of thinking about the value of water in arid communities. The United States as a whole exports more than twice as much virtual water (about 82 trillion gallons) as any other country, and imports approximately 62 trillion gallons.¹

Vulnerabilities:

One quarter of small farmers interviewed expressed concerns about water and drought, including cost of water, water scarcity, and quality of water. Lack of water caused farmers to abandon certain fields, and to halt organic practices such as summer cover cropping, which can increase yields and profits. Water impacts the long-term sustainability of all aspects of life in SLO County. Finding equitable and sustainable methods of using this critical resource are required for the long-term health of farming in the county.


In Arroyo Grande this is my last month. Because of the water. We have only water for cows and chickens and the fruit trees.

The thing is, number one, the water. Because we are grandfathered in to use the creek and if it doesn’t rain the creek is going to go dry and do we want to use our well water for agriculture?

Irrigation causes build up of salts in the soil and it really helps to have rain to leach it out.

We have a small fruit orchard but it hasn’t been very productive because of the drought stress on the trees.
The California Department of Conservation (CDC) has mapped farmland loss in the state since 1984. This map illustrates areas of farmland loss in the county between 1984 and 2012 (the last year for which data was available at the time of the study).

Areas shown in red or purple have been converted in the past two decades to ‘Urban and Built-up Land.’ Lands with this designation may include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.

Farmland and grazing conversions that occur within city limits are of less concern, as those are the areas of the county designated for development. Yet some areas in the county show significant conversions outside of designated urban areas. Given the relatively small proportion of prime agricultural soils in the county, reducing or eliminating ag land conversions outside of city limits would strengthen the overall sustainability and resilience of local food systems.

Real estate development of agricultural land also increases farmland costs for farmers. 36% of farmers interviewed for this study said land costs were a challenge for farming in SLO County (excludes farmers on subsidized land).

“A big challenge is that in this part of the county, land is very expensive, and so in order to be economically sustainable, as a farm we have to be vertically integrated.”

“If you don’t already have land it’s hard to acquire because of the price per acre. We’re lucky that 25 years ago land was reasonable and that due to our day jobs we’ve been able to increase acreage slowly.”
Distribution networks are a key aspect of all food systems. They provide the link between places of production and of consumption. In the current globalized food system, distribution networks are complex and often managed by national or multi-national shipping and retail corporations.

Many aspects of distribution, including trucking, packaging and refrigeration have enormous environmental consequences. Distribution networks also have consequences for farmer livelihood. Sustainable distribution networks would seek to reduce vehicle miles traveled and use of refrigeration and packaging, and to equitably recompense growers and handlers. Resilient distribution networks consider the impacts of potential interruptions to the supply chain, with a focus on creating shorter supply chains and redundant systems that can function during emergencies.

The following maps explore three aspects of distribution in SLO County including consumer shopping habits, farmer perspectives on distribution and marketing, and food access for low-income residents.

One third of farmers interviewed described challenges with accessing distribution channels.
Community Food Map

This map illustrates the community foodshed based on community workshops held with residents in San Luis Obispo, Los Osos and Paso Robles. Workshop participants were asked to connect the grocery store they shop at most often with that store’s distribution warehouse. The county is served by 11 national and regional grocery store chains, all of which have their nearest distribution centers in San Francisco, Stockton, or Los Angeles. Distribution warehouses are strategically located along interstate highways and near shipping ports, including the inland Port of Stockton. Line thickness indicates volume, with thicker lines for more popular stores. (Note that this map illustrates only the final leg of the true foodshed, which may have originated out-of-state or overseas.) In all workshops residents expressed surprise that produce in local grocery stores would have come via warehouses beyond the county line. Typical participants believed that stores were stocked directly with produce from local (county) farms.

Strengths:
The ICIC designates large chain food retailers as less vulnerable to interruptions in supply as they typically have continuity plans and insurance in place. The county’s reliance on chain food retailers may prevent significant interruptions in food supply following a disaster.

Vulnerabilities & Sustainability Impacts:
Food warehousing takes place at significant distances from SLO County retail stores (sometimes further than 200 miles).

The ICIC has identified that 70 percent of the warehouse infrastructure in Los Angeles, including the Wholesale Produce Market, are located in ‘at risk’ areas for earthquakes and that disruptions to food distribution could occur following seismic activity in the Los Angeles area due to infrastructure damage. There is likely a similar vulnerability for warehouses in the San Francisco Bay Area.

Reliance on large national food chains reduces the ability of small local farmers to sell locally, as requirements for insurance, documentation, and volume of larger retailers can be prohibitive.

48% of farmers interviewed identified the need for brokers or a food hub that will work with small farmers.

¹Workshops held in San Luis Obispo, CA (2015), Los Osos (2015) and Paso Robles (2016). Total participants in the Community Foodshed map = 84.
Direct Sales

Farmers Markets

Direct sales improve the economic sustainability of small farm operations by allowing the farmer to earn the full market value of their crop. One of SLO County’s most developed infrastructures for local produce distribution is the network of farmers markets. Seven organizations put on 18 farmers markets weekly (as of 2017). Other direct sales outlets include farmstands and sales to restaurants or institutions.

However, many farmers interviewed for the Atlas reported that they are not able to secure a spot at local markets, and some have been on the waiting list for years. Farmers markets in the county do not require that sellers grow or produce locally, and so vendors may be from the Central Valley, Salinas Valley, or Southern California.

Strengths:
More than half of the county’s population lives within a 3.8 mile radius of a farmers market (3.8 miles is the average distance to a supermarket in the United States.)¹ This suggests that county residents overall have good access to markets in which they can shop directly from farmers.

Vulnerabilities & Sustainability Impacts:
While a majority of small farmers interviewed for the project sell at farmers markets, those markets are not necessarily in the county. Some farmers report exporting 50% or more of their produce weekly, in sales at the Santa Monica Farmers Market, or to distributors like Veritable Vegetable in San Francisco. Reasons given include more equitable pricing in markets in Los Angeles and San Francisco, and the difficulty of participating in local markets.

¹USDA Economic Research Service
Community Food Perspectives

“Where do you shop for fresh fruits and vegetables?”

Workshop participants largely report buying fresh fruits and vegetables at supermarkets. Other locations include warehouse stores (such as Costco or Smart & Final), farmers markets, and community supported agriculture (CSA) subscriptions.

“What’s important when you shop for food?”

Knowing the farmer is often cited as a reason why people shop at farmers markets. However, this survey suggests that campaigns to increase local food purchases would do better to focus on the freshness of local food. Given the high costs of living in the county, residents also consider cost of food an important factor. This can be in tension with farmers’ need to create a sustainable livelihood, and suggests that food access be considered holistically with other planning efforts, such as affordable housing.

“Where do you shop for fresh fruits and vegetables?”

Survey conducted at SLO Saturday Farmers Market, supermarkets in SLO, Pismo Beach, and Atascadero, and community workshops in SLO, Paso Robles and Los Osos. Total survey participants = 124.

“What’s on your grocery list?”

Consumers reported on items they shop for weekly. This graphic compares shopping habits of local consumers with crop production and reveals potential focus crops for buy-local campaigns — those items that are both purchased regularly and produced in high volumes.

Survey conducted at community workshops in SLO, Paso Robles and Los Osos. Total survey participants = 427.
Grower Perspectives

Interviews with 23 small-scale independent farmers throughout the county during 2015 & 2016 form the basis of this part of the Atlas. Interviews were conducted in-person, and lasted between 30 minutes and 1 hour.

The majority (62%) of the farmers interviewed have over twenty years of experience farming, and farm organically. 52% of farmers interviewed grow on less than 5 acres, while a third grow on 20 or more acres.

The majority (62%) of the farmers interviewed have over twenty years of experience farming, and farm organically. 52% of farmers interviewed grow on less than 5 acres, while a third grow on 20 or more acres.

"What's the biggest challenge with being a small farmer in SLO?"

Growers touched on a range of issues, including drought, labor, and land prices. The major themes however were around ability to market produce for a fair price, and access to distribution channels, both at the local farmers markets and larger regional networks.

"Where do you sell?"

Although the majority of farmers sell at farmers markets, these markets are not necessarily within the county. Several farmers sell more than half their produce by volume at the Santa Monica Farmers Market weekly.

Other outlets: distributor (29%), CSA (24%), farmstand (10%) [note that percentages do not total 100 because farmers sell in multiple outlets]

"What agricultural infrastructure is needed in SLO County?"

Farmers identified a number of infrastructure types that would support their current operations, as well as make expansion more feasible. Some farmers also remember previous false starts for projects such as food hubs or mobile processing units, and were wary of community-based efforts towards agricultural infrastructure projects. Efforts to create future agricultural infrastructure should be undertaken after thorough business plan review, and should take an efficient and respectful approach to use of farmer time in planning. County level support would enhance the feasibility of any infrastructure project.

"Dehydrating or freeze drying would be very beneficial to me. Some storage facility so that a distribution truck could pick it up on their schedule."

"Actually the processing unit is kind of tied to the canning. We do value added products. We used to have it processed up in San Rafael in the Bay Area, and to get the berries from here to there is an 8 hour trip. I would harvest the berries and haul my butt up there. It has to be food safety certified and it has to be certified by the CCOF. We don’t have anything like that around here. I wouldn’t want to do it myself but I would pay someone to do it."

"I’d be interested in if there were a processing facility I could use, that would be really great, like a large commercial kitchen. In Maine we would rent a kitchen and make sauces ourselves."

"The third party aggregator. And under that heading falls wholesale contracts and a processing unit, if it’s possible to have that all under one roof. Having facilities available to rent for small producers. Being able to convert that into high-ticket shelf products would be huge and it’s possible with the food hub."

"Well cold storage might be interesting but we’re in a remote spot so the reality of hauling stuff...but to store our spring crop of onions, we would be able to store them better if we could store them in an actual cold storage. And then we could keep them there and get them as we need."

"It’s so easy to have an organic [processing] facility and then have a conventional person in it. It is impossible to have a conventional facility and take me in as an organic farmer. If your facility is organically certified as storage, a kitchen, or as a packer, you can take conventional people in. You cannot do it the other way."

"Finding distribution for our products is a challenge. Because most places either go from L.A. to Salinas on the 5, they don’t really take the 101. So there’s a challenge on finding distributors to sell our products to.”

"The hard part is the market here in SLO. You can’t leverage what you’ve got, you can maybe cover your costs, so I have to go to L.A. or San Francisco."

"It’s how do you engage the local citizens to support (local produce) at a price that is sustainable."

"Selling the product and reaching a bottom line in the process."

Dehydrating Facility 14%
Organic Canning Facility 38%
Broker or Food Hub 48%
Cold Storage 10%
Packing Facility 10%
[note that percentages do not total 100 because farmers identified multiple infrastructures]
"How can food systems advocates best support small growers?"

Paperwork requirements, including forms required for selling, for organic certification, for farmers markets, and for environmental compliance were reported as burdensome to small operations. Farmers felt they needed a full-time employee to complete paperwork, and not having one, they had to pass up opportunities for growth or sales. Many farmers (29%) felt that the best help people can offer is buying local and supporting farmers directly. To increase local purchasing farmers suggested the need for education and outreach campaigns within the community.

Assistance in applying for conservation easements, in managing social media and other marketing platforms, and in providing labor for harvest work parties were also suggested as ways advocates could help as well. To make such ideas feasible would require an organization to coordinate volunteer efforts.

There was no consensus between the growers interviewed on the usefulness of more farmers markets. While consumers assume that farmers in the markets are ‘local,’ many vendors are from Salinas or the Central Valley, while local farmers may be told there are no more spaces in the market. County growers who have been on the waitlist for local markets for five years (or more) felt that new markets would be helpful, but only if they are exclusively for county growers. Other farmers felt that there are plenty of markets, but not enough people shopping at them to make it profitable.

"The best way people can support us is to ask for more local farmers to be at the farmers markets."

"I don’t know that we need more farmer’s markets. Maybe less paperwork and logistics with them."

"More farmers markets might be useful. I think the way the farmers markets are structured here is a little bit hard to deal with."

"A program in the county where people are incentivized to buy food locally."

Farmers generally perceived that restaurants are a strong potential market, but only with broker or buyer involvement. Without a broker, restaurants may order too little produce to make it ‘worth it’ for the farmer. Conversely few farmers grow all the items a restaurant needs, and so it is easier to order from one larger supplier than to purchase from multiple small farmers.

"Restaurants are interested in buying locally … but don’t have time to talk to fifteen farmers to get what they want."

"Contacts with restaurants, but it seems like everyone just wants to have the flexibility and see where the menu wants to go and buy five pounds a week — we have a lot of that and that doesn’t make a lot of sense for us to spend the fuel to get there, so I think contract growing for restaurants would be nice."

"A food hub or central market to take stuff that isn’t so restrictive. We’re organic and some of the constraints that were up against, it seems like it’s a paperwork mill all the time. Someplace where people have reliability and a face with their product."
Food Deserts

"Food desert" is the popular term for what the United States Department of Agriculture (USDA) refers to as a 'low-access community,' places where at least 33% of the population lives more than 1 mile from a supermarket, or in rural census tracts, more than 10 miles.¹

Based on SLO County's rural status², and USDA criteria, there are few food deserts in the county. Both Shandon and California Valley qualify, while other communities without a supermarket, such as San Miguel, Cayucos or Creston, are within a 10-mile drive of a market.

Unlike most rural places, SLO County has an urban cost of living, particularly in housing prices.³ This makes ownership and maintenance of private vehicles more difficult, and complicates the actual story of food deserts in the county. The Food Bank Coalition of San Luis Obispo uses absence of a supermarket as one indicator of a low-access community. Another key indicator is the percentage of students enrolled in free or reduced lunch programs (federal programs based on income level), as is the presence of social service agencies. Although communities such as Shandon and San Simeon do not meet USDA guidelines for food deserts, they do meet Food Bank criteria for distributions.

Vulnerabilities & Sustainability Impacts:
Some populated areas, notably Paso Robles and Atascadero, would qualify as food deserts under USDA guidelines for urban areas. More than one third of the populated area is more than one mile from a supermarket (indicated by orange mile radius circles on map). This creates vulnerabilities for access during times of emergency, as well as a sustainability impact of vehicle miles traveled to access food even for the most well-served communities. Low-income communities without a supermarket are particularly vulnerable to food supply interruptions during times of emergency.

¹M. Gallagher. 'USDA Defines Food Deserts' in American Nutrition Association Nutrition Digest, vol 38, n2
²SLO County is a member of the Rural County Representatives of California
³HUD Fair Market Rent for a 2-bedroom home in the San Luis Obispo area in 2018 was $1427, which is more comparable to urban areas like Los Angeles ($1663) than rural areas like Bakersfield ($904). Department of Housing and Urban Development (HUD) Home Rent Limits
Food Access

1 in 6 SLO County residents face hunger and lack of food access, and 60% of county residents who are served by the Food Bank are children or seniors.¹ While many factors can contribute to ongoing issues with food access, systematic issues like high cost of living are a major factor in the county.

What counts as poverty?
The federal government sets annual poverty guidelines that determine eligibility for aid programs. The 2019 federal poverty guideline for a family of four is $24,600.² These guidelines apply to all 48 contiguous states, regardless of variations in actual costs of living.

California has some of the highest cost of living in the country, and coastal communities like San Luis Obispo are among the highest in the state. To create a more nuanced set of poverty guidelines, the United Way has determined a Real Cost Measure, which determines the minimum earnings to meet basic needs such as housing, food, and transportation. For SLO County in 2019 the Real Cost for a family of four is $84,573, almost 3.5 times higher than the federal poverty guideline.³

The median income for the county in 2018 was $71,880,⁴ a deficit of almost $13,000 when compared to the Real Cost Measure.

"Do you have difficulty obtaining food?"
Participants in a workshop in Nipomo (2016, n=100) were surveyed about their access to food. 51.5% of respondents reported difficulty accessing food in the prior year.

The majority of respondents reported living in a family with children (73.7%). Respondents were generally not migrant workers, with 73% reporting that they have lived in SLO more than ten years, and 12% living in SLO more than thirty years. Only 11% of respondents had lived in SLO County less than 5 years. In general respondents had low education levels, with 38% reporting only elementary school, and 82% reporting high school or less. The median reported income bracket for this group was $15,000-24,999 annually. 35% of respondents earned less than $15,000.

2. US Department of Health and Human Services 2019 Federal Poverty Guidelines
5. Department of Housing and Urban Development (HUD) Home Rent Limits

¹ These locations were chosen as they matched the location of community workshops in the study
Food Waste

Access & Excess

Approximately 18% of the material sent to landfills in California each year is food waste: scraps, spoilage, and uneaten items. Assembly Bill 1826 now requires commercial enterprises throughout the state to recycle organic wastes, including food waste. San Luis Obispo has expanded the effort to divert organic waste from landfills by offering curbside collection for residences as well. In 2018 the SLO County Integrated Waste Management Authority brought an anaerobic digestion facility online, which processes organic waste into electricity.

Food waste in the county is also addressed through a secondary distribution system, in which food travels from grocery stores to consumers via the Food Bank. In 2018 the Food Bank received over 230,000 pounds of produce from thirty-seven grocery stores, perishable items that were no longer fit for sale. 93% of the food was distributed to persons in need, while 7% was deemed unfit for human consumption, and returned to the waste stream.

Strengths:
The dispersed pattern of Food Bank distribution sites is a strength from a resilience planning perspective. It indicates a strong network of community engagement and fosters strength through redundancy. If one distribution site were to be rendered unusable following a disaster it is likely that there would be a back-up amongst the many alternate sites. These sites can also potentially be utilized for needs beyond food distribution such as temporary shelter.

Vulnerabilities:
While this secondary distribution system reduces food waste within the county, and supports low-income persons, it places a burden on the non-profit Food Bank. Without this system, grocery stores would pay to dispose of perishable items through their organic waste disposal company. The secondary distribution system shifts the cost of disposal to the Food Bank.

Map Data Sources

Maps throughout this book were created using ArcGIS® software by Esri. ArcGIS® and ArcMap™ are the intellec-
tual property of Esri and are used herein under license. Copyright © Esri. All rights reserved. For more information
about Esri® software, please visit www.esri.com.

Regional Foodsheds: California Olive Oil Council (growing regions).

Local Production: County of San Luis Obispo Department of Agriculture/Weights and Measures: AG_Crops
[Shapefile].

Community Production: Food Bank Coalition of San Luis Obispo (glean sites 2016).

Soil & Water: County of San Luis Obispo NCRS Soil Survey - San Luis Obispo County [Shapefile]. County of San
Luis Obispo Groundwater Basins 1999 [Shapefile]. County of San Luis Obispo Department of Agriculture/Weights
and Measures: AG_Crops [Shapefile].

Ag Land Conversion since 1984: California Department of Farmland Conservation Farmland Monitoring and
dlrp/FMMP.

Community Foodshed: San Luis Obispo County: GROCERY [Shapefile]

Direct Sales: Sources: U.S. Census data; esridata; SLO County Farmers’ Market Association; North County
Farmers Market Association; USDA Economic Research Service; Local Harvest.

Food Deserts: Sources: U.S. Census data; esridata

Food Waste: Sources: Food Bank Coalition of San Luis Obispo County 2018 data

Other data sources and references are listed within the document on their respective pages.